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Welcome to 'Radio Race Car', the magazine we hope will provide a new perspective to racing radio controlled cars for beginners and experts alike, covering all aspects of the hobby/sport.

Both my co-editor and I gave much thought to this venture and after many hours of contemplation and discussion came up with many reasons why we shouldn't enter the magazine business!

However, feeling that the need for such a magazine was all important and rising to the challenge, we decided to go ahead with 'Radio Race Car' and approach the publication from a different direction, that of modellers tackling the problems of journalism rather than the reverse.

We hope very much that this approach will be successful and look forward to your letters of information, criticism and views on how you would like to see the magazine develop.

Both Les and I are determined to give fair and balanced content covering all R/C racing including the off road events which are attracting an increasingly large following. There will, however, be the usual seasonal swings and roundabouts (i.e. 1/8th racing is a problem in 6 inches of snow!)

We intend to include in each issue a comprehensive coverage of race meetings, articles, car kit reviews, - (boy, have we got some interesting ones for the January issue ! !) club news and events, motor tests, IC and Electric, plus a lot more. As the magazine deals with purely RC Racing, we intend to give a comprehensive coverage both at home and abroad.

Tony Stephenson

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ISSUE NO 1

Welcome to 'Radio Race Car'. I hope it has turned out the way you would like it to. If not, why not? We'd like to hear from you with ideas and constructive criticism.

We'd also like to hear from the more literary amongst you for articles on any aspect of radio control model car racing. The challenge of putting together even a short article can be quite rewarding, especially when it finally gets into print. The financial remuneration comes in handy - don't expect a fortune - but it should buy a few pints! Have a go - you might surprise yourself! Well, we're finally under way. Please give us your support and we'll endeavor to give our radio controlled car racing sport some worthwhile coverage.

See you around the circuits. Good racing!

Les Pipe

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* * * *

Around The Clubs

THIS IS WHERE WE NEED YOU TO HELP TO MAKE THIS FEATURE WORK.
ANY NEWS OF YOUR LOCAL CLUB WOULD BE APPRECIATED.

THE ALLY PALLY CLUB



Jane Adams

The Ally Pally Club was one of the first electric car clubs to form in the first months of 1977. In those days the club racing took part in the enormous and majestic halls of Alexandra Palace, in North London, but since then events have resulted in moving to a more normal venue of a large church hall.

Right from the beginning the club has been fiercely competitive, coupled with a very strong innovative membership, and everything new turns up on the track, and this particularly applies to the motors. The club, in the days of Alexandra Palace, had very large tracks and therefore speed which meant tuned motors was the norm. This acceptance of modified motors has resulted in the Club being one of the few to race modified class at all Club meetings. Imported tuned Igarashis were in use in 1977, whereas some clubs even today do not know the difference between the Igarashi variants. The Cam motor was in use in 1979 and again many people are still to discover this as the ANY GZ1200.

The Club, pursuing its' quest for the ultimate for modified racing, soon was running races outdoors at Battersea Park in London during 1978, and as a result again became the leaders in discovering imported tyres from the U.S.A., such as Bolink, Grabbers and Huggers, which have since become known as 'C' and 'D' foam tyres. Even so, many racers are yet to discover the difference between various outdoor tyres. The Battersea modified races have become extremely popular with attendances often be-

tween 60 and 80 racers, and taking place about every 3 weeks.

Returning to the innovative nature of the Club. It is possible to see at a Club Meeting such cars as twin drive motors; front wheel drive with 3 differentials; chain drive; ground effect derived from additional small motor with fan attached. However, it is interesting to note that in 1977 the Lectricar was the only car available, but this was soon replaced by the Bolink car which had a nylon chassis and was very lightweight. This car with Igarashi motors, electronic controls and fabulous Lexon bodies always astounded other clubs during 1977/78 since the Mardave and Lectricar were used almost universally in the rest of the country. During 1979 the club went through a very innovative 'scratch building' period looking for more sophistication and this resulted in the Phil Greeno Gemini Car, which has become the norm during 1980. It is also interesting to note that the Club has pioneered electronic speed controls from the beginning in 1977 and has seen the development of the Smoothtronic and the Demon Speed Controller, resulting today in about 90% of Club members using electronic speed controls.

The Club can also boast a very interesting membership over the years with names such as Phil Greeno, Nick Adams, Geoff Peters, John Chamberlain, and many other strong National open meeting contenders. The Club has always contested National Meetings strongly with members and teams always featuring in the top places. The most notable success this year was the Team Endurance Prize and 1st, 3rd, 4th, 5th at the massive Bingley Hall meeting in Birmingham.

Club racing consists of 8 car qualifying heats of 6 minutes. The best time from qualifying determines your position in the A.B.C.D. or E. finals. Four championships are run every year with 9 rounds in each. Points are scored in the A final only, and the best 6 scores out of the 9 can be counted. A weekly updated qualifying table is also kept so that members may see where they are placed overall in the Club.

To ensure that races move along smoothly the Club makes full use of track equipment,

timing equipment and Public Address loud-speakers.

One unfortunate result of the Club being so active is that the membership is always full and Club nights jammed with competitors. However, occasionally someone does move away so that there may be a chance of joining if you are lucky. The Club meets every Thursday evening at the All Saints Church Hall, Oakleigh Road North, London N.20.

For details of this and Battersea meetings contact the Secretary, Jane Adams at, 79, Northumberland Road, North Harrow, Middlesex.

HA2 7RA. Phone 01-866-5945

* * * * *

C.A.R.S.

(Chesterfield Auto Racing Society)

In February 1979, six very green people met in a very seedy Public House to have a 'run around' with their brand new cars, using chairs as a driving rostrum, and benches as a track. From the word go - we paid visits to other established clubs in order to get ideas.

After about six weeks, now having 12 members, we moved to a local Church Hall with the provisional name of 'Bolsover and Surrounding Towns Auto Racing Drivers' Society', but could not find anyone prepared to print T-shirts with the initials on. We then sat down and decided how we wanted the Club to develop. The ambitious decision was made to try and have the best Club in the country, with the best location and the best facilities, with a view towards serious competitive racing rather than just driving for fun. Straight away we hired the largest hall we could find and immediately upped attendance to around 40 per week. Unfortunately problems with an awkward steward rather spoiled things and so, in January 1980, we moved to the GOLDWELL ROOMS at Chestfield, Derbyshire, still keeping Wednesday night as club night, with the appropriate name of Chesterfield Auto Racing Society (C.A.R.S.)

This development proved popular with everyone and attendance moved to an average of 75 per week. With this sort of number, money was not a problem, but organisation was, so we looked around at the available equipment and decided that a proper computer was our only answer. Several popular ones in use at the other clubs were looked at, but all had severe limitations. Kay's Electronics, a local firm,

then came up with a system that is extremely flexible - gives positions at the end of each heat, provides monitors for spectators, works out best times for each driver in each of the different leagues, lists every single drivers' best time of the night and sorts them into position plus a complete print out, at the end of the heat, of each drivers' lap times. - i.e. No more moans about missing laps. The driver can look, for himself, as we know the laps are around 15 seconds, so if his laps are around 15 secs. we cannot have missed one. If one lap is about 20-25 secs. he has probably had a mishap somewhere round the track (i.e. not enough time to do another lap). If one is about 30 secs. then there is a possibility we may have missed a lap. In fact the computer has completely eliminated all howls of protest that normally accompany racing. Since then we have purchased a Spectrum Analyzer to check on interference problems. This has proved in virtually every case, that it is the drivers equipment at fault, or strong crystals in a couple of instances.

We now have plenty of good members, a superb venue providing a 120 yard track, bar, plenty of pit area at trackside, room for spectators (who we charge for entry) and all the equipment we need, but we have not yet had the results in National Meetings that we want, so this must be our next priority.

In September of this year the Club held Britains' second ever National Rallycross. On the face of it, with go-anywhere vehicles, it ought to be dead easy to find a venue, but not wishing to drop standards, we eventually decided on a pub owned by the father-in-law of one of our members (Porno - Derek). This provided a grass track with a steep hump, plus toilets, car parking, pit area, electric for the computer and with the good will of the landlord drinks and sandwiches all day.

The buggies began racing at 10.00 a.m. after practice, and many varied comments were heard regarding the jumps, sand-trap and water splash. The racing proved very competitive, all 64 drivers being allowed four rounds. By using the idea of heat 1 on solids, heat 2 on splits and so on, a very quick turn round between races can be obtained. The 1/10th final provided to be very exciting with 3 cars coming into the final bend together and all three piling up. The marshal, therefore dictated the finish order by turning over Bill Maisey's first, Neal Francis' second and Willy Bailey's third. Wally also won the 1/12th final.

Paul Hopkinson, a local driver has distinguished himself by getting into the main final of both National events held so far, and also winning the buggy event at the second week of Pontins.

Any details of the above Club can be obtained from Malcolm Webb,

1, Blyth Court,
Mansfield,
Notts. Mansfield 640796

NORTHAMPTON MODEL CAR CLUB

Secretary:- Bob Hemphill,
16, Sandhills Road,
Whitehills,
Northampton.
NN2 8ER.
Phone: (0604) 845256

This Club meets every Wednesday for racing at the United Reform Church Hall, Headlands, Northampton.

Membership stands at around 25 with about 20 turning up each week.

Race fee is £1 adult, 50p junior. Heats are 6 mins. and finals are sometimes 8 mins. There are usually 4-5 heats per evening, with 3 finals for beginners, intermediate, and expert. All heats are graded as such where possible. Regular Club championships are run and one is currently in progress. The Club also fields a team in open events where all visitors are very welcome.

The hall is of medium size and sports a wooden planked floor, which when mopped gives good grip, but otherwise gets slippery and tyre choice is crucial. Tyres must be siliconed fine to medium stipple on rears. Associated cars figure prominently with members, with some scratch built using Associated/Greeno parts. Mardave seems to be the choice of younger members (I expect due to finance). Most people run Schumacher diffs, with the odd Associated and AMPS showing. Most use Associated or Parma resistor speed control with the odd Smoothtronic and Unitrol for good measure.

Tyres are always a controversial topic. Some are ardent Neoprene fans and some are Armaflex. The Neoprene people going for Raydio and making their own sleeves, and the Armaflex boys usually going for ready mades such as, Hobby Spot or K&T tyres with the centres already in.

The Club is currently on the look out for a lap counter and timer, or some electronic boffin who could manufacture one of these machines without breaking the bank. So

far in this search, we have been unsuccessful.

Alan Bakeman has indicated that we are likely to be invited to participate in next-seasons Midland League. Some of our drivers helped out the other Club in Northampton - The Nene Radio Car Club - in the last events.

The Club also appears at fetes and puts on displays, which seems to be a good Public Relations exercise for R/C car racing in general.

DEVON

EAST DEVON R.C. CLUB

The East Devon R.C. Club races both 1/8 I.C. and 1/12 Electric (the Exeter Winter Nationals are hosted by them) cars.

However, unlike many clubs, they stop racing their electric cars through the summer and turn to 1/8 I.C. cars even though they don't have a local track of their own (some members even go off and fly model aircraft it's rumoured!!!)

This year the 1/8 drivers have been quite successful, having gained 3rd place, for the 2nd year running, in the Southern League.

Anyone wanting more information contact
Ian Davis,
110, Hulham Road,
Exmouth,
Devon.

* Keep up the excellent Winter Nationals.
This event is enjoyed by so many drivers.
ED.

BOURNEMOUTH

Bournemouth Radio Auto Club

Bournemouth Radio Auto Club is possibly one of the most active clubs and is involved with 1/8, 1/12 and stockers.

The Club has been very successful this year, coming 1st. in the Southern League for the 2nd year and winning the BULMERS 4 hour at Mendip for the 3rd year running.

Bob tells me that at present membership is around 72 - 80 and new members are welcome. I also understand that there is usually plenty of help and advice for the beginner.
ED.

Secretary:- Bob Errington,
19, Archdale Close,
Bournemouth. (0202) 524524

PETERBOROUGH

Richard Gammon (the 'Spectron' man), who, as well as finding time to move house, get married to lovely Wendy, has found time to start an electric racing car club in Peterborough.

They meet once a week on Saturdays - between 7 p.m. and 11 p.m. at 'The Sports Centre', Orton Centre, Orton, Goldhay, Peterborough. The track surface is a polished gym and siliconed tyres are both desirable and permitted. Richard tells me that refreshments are available from a sophisticated vending machine and the bar!

The Club caters for all grades of driver and at present membership is open, so if you want to join or have more information give Richard Gammon a ring on :-

Peterborough 235057 or 49955.

Let us know how you get on Richard and good luck with the new Club.

ED.

BIRMINGHAM

The South Birmingham Model Car Club is now entering into its 3rd year, and for the past 12 months has been meeting at The Brandhall Community Centre, Brandhall, Oldbury. (5 minutes off Junction 3, M5). This pleasant venue offers a good surface and has enough room to vary the track layout. In the last 12 months they have been fortunate to have had made an excellent lap counter/timer that enables racing with a variation of times 1-9 mins. and with a high degree of accuracy.

Tony Hiley (known as 'Big Tone') organises the race control superbly and much is owed to him for the well organised and enjoyable racing for beginners and experts alike, keep it up. Incidentally, Tony Hiley was in race control at the Malvern Grand Prix and how he saw the cars, let alone count them the pace they were setting in the final, amazed many onlookers.

The Club meets on Fridays between 7.15 p.m. and 11 p.m., and offers good racing for all grades of driver. The novice drivers benefit greatly from some of the 'expert' drivers who race regularly at the Club. Names like Neal Francis, Bill Maisey, Fred Hatfield, Jim & Wayne Davis. It is good that they are willing to share their expertise with the up and coming drivers.

Membership is now rapidly approaching seventy and is at present still open.

Anyone wishing to join, either turn up on the night, or contact Tony Stephenson on Bromsgrove 78953.

* * * * *

MALVERN

Electric car racing in Malvern lives.

They race every Tuesday evening at the Dyson Perrins School, which provides a superb racing venue.

Since its inception, nearly a year ago, they have gone from strength to strength and now a weekly turnout of around 25 - 30, with some very good drivers showing their form. Drivers are attracted to the Club from as far afield as Hereford (though I believe a club is in the process of being set up there). The track surface is polished wood and with the more adventurous circuits, it emphasises the primary need for car and tyre preparation, rather than brute force with very rapid motors (I seem to have heard that before ed.)

Anyone interested in racing at Malvern or joining the club should contact:-

George Chaplin,
41, Albert Park Road,
Malvern Link,
Malvern,
Worcs.

Tel: Malvern 4883.



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A Word from Tom Martin

Dear Tony,

I was delighted to learn that means of communication in our sport was being strengthened by the publication of 'Radio Race Car', and even more delighted to know that the hands behind the pens owned fingers which were experienced on the control sticks and the lap-counting buttons. Surely the right combination for some "in-depth" articles, comment and criticism.

I wrote that last sentence with feeling because I have recently read some right rubbish and heard some worrying attitudes expressed in both eighth and twelfth scale circles. Hopefully, the eighth boys aren't putting petrol in the tanks feeding their O.S. engines, nor are twelfth cars travelling at 80 mph in the village hall as recent articles have suggested. Hopefully, too, competitors aren't setting out to flout the rules and thwart the organisers in the way gossip suggests, but one is left wondering.

At least I am sure that the young reporter who approached me recently for the BRCA official statement on a local taxi drivers' dispute had got it wrong, but although I can excuse the lady's confusion over radio cars and taxis, I am not so sure that I can excuse the ill-informed writers. Without any doubt I cannot excuse those who disrupt our sport by flouting the rules. Obviously, a publication with the authority of experience can do much to put matters right.

It seems that there are still many ill-informed people both inside and outside our sport. How else can we account for a starter running backwards for three months or two successive battery packs exploded with charging current in the wrong direction, except to plead lack of information. Both these events in the last few months illustrate the need for information even on basics.

I am sure 'Radio Race Car' will help strengthen the links and improve the message and I look forward to reading the first issues.

Good luck and very best wishes to you and Les as you take up the pen. How you manage to launch a new magazine and organize the twelfth nationals in one month I'll never know. Hopefully your example will encourage others to drive, write and organise. The sport needs people to do all three.

Yours sincerely

Tom Martin

Telephone: Peterborough 72114

The Secretary, British Radio Car Association,
7 The Green, Werrington, Peterborough, PE4 6RT.

The British Radio Car Association was formed in 1972 to promote interest in radio controlled model racing cars, to set rules and standards for construction and racing and to encourage national and international competition.

The Association has grown to be one of the major world associations and, in co-operation with the European Federation of Radio-operated Automobiles, has taken a leading part in establishing world standards and international competition for eighth and twelfth scale cars.

The Association circulates its own publication "Circuit Chatter" regularly throughout the year, with national and international racing news, members' news and views and all the latest information for the R/C car enthusiast.

To encourage racing at all levels of cost and driver-ability the Association publishes regular national handicap ratings for all drivers competing in open events, enabling organisers to stage open competitions for eighth and twelfth scaled cars with attraction and interest for everyone.

The annual membership fee covers enrolment, an Association Handbook with all the latest construction and racing rules, insurance cover for all British member drivers and regular delivery of "Circuit Chatter" by post.

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PHIL GREENO

Column



1980 has probably seen the largest technical change in basic 1/8th scale design thinking for nearly eight years. I am of course referring to the fully independently sprung cars or "wobblers" as they're becoming known. "PB Racing Products", "AMPS" and "SERPENT" have all built and raced prototype chassis with independent suspension this year, of course independent suspension is not new on 1/8th scale IC cars, in 1975 Ronny Tonn of Holland raced his own design and built "wobbly" with some success until SG lured him away to drive for them. His car however, at that time was not intended for production and with the limited technical facilities he had for its construction reliability was a big problem.

However, a lot has been learnt in the last 5 years of 1/8th scale IC racing and with experience behind them, it was inevitable that current manufacturers would have a serious attempt at producing an independently sprung car.

PB were the first to test an independently sprung rear suspension fitted to a new chassis back in October 1978. Keith Plested and Phil Booth did the testing mostly in secret, and the car never saw an open race. The car used machined aluminium unequal length wishbones, and uprights for the rear suspension. The engine was mid-mounted across the chassis with a normal centrifugal clutch,

driving a layshaft, which in turn drove a rear differential via a rubber toothed belt. Drive shafts were made from hexagonal allen keys with ball ends. Front suspension was a standard PB International nylon cross beam with standard geometry, the car was well overweight (7lbs) and understeered badly, but it did have superb rear traction and rode well over the bumpy Bournemouth track, where most of the testing was done. This car however, was quietly put aside for 1979, while further thought on design took place.

In early 1979 Ted Booker of 'Ted Booker Racing' also built an independent rear suspension system, fitted to what was basically a PB chassis from midships forward. Design thinking was, however, slightly different to that of Keith Plested. The car used wishbones and uprights at the rear, this time made from nylon, the engine was centrally mounted but inline, not cross mounted. Drive was through a centrifugal clutch and bevel gears to a large nylon rear bevel drive gear, and then through half-shafts to the wheels. Most of the transmission parts were made from a micro-mould 'Lark Helicopter' rotor drive system.

About this time, Ian Agnew of AMPS got interested in the 'Ted Booker' design and took over development. Soon an AMPS differential unit, revised transmission, and a fully independent front suspension was designed and fitted.

Ian Agnew then worked hard on development through the winter, ready for the 1980 season. With Dave Martin and Robin Ellis as drivers, everybody was watching with great interest to see how the car would fair in its first competition. The first meeting of 1980 was at Bournemouth, a fast, but now quite bumpy circuit.

The car was very fast on the bumpy sweepers, and Dave Martin was one of the front runners. Had the car been more reliable (clutch and engine problems), AMPS might have had an instant success. Still further development took place, and by June in 'Monte Carlo' where the second World Cup for formula cars was being held, Gary Culver, now driving for AMPS took F.T.D. Further successes were wins at the Aldershot Open and of course, their excellent 1st and 2nd places at the 1980 British National in the sports/GT class.

Over the Winter of 1979/80, Keith Plested of PB has been re-thinking the design of his original independent car, and was quietly developing it in the depths of his Havant workshops. It wasn't until Monaco 1980 that it saw its first public appearance. The car was shown to all, but not

PHIL GREENO

Column

raced. Chassis layout was similar to his original design, but the rear wishbones were now in nylon, not aluminium, transmission layout was similar, but instead of a rubber toothed belt as drive to the rear differential, Keith was using a Chain. This was quite different from anything we had seen before and caused much comment. Two longitudinal aluminium side spines formed the new chassis, and at the front there was a completely new front suspension. The independent front end used unequal length wishbones in nylon, aluminium machined uprights, piano wire torsion bar springing and oil filled hydraulic dampers. Oil filled dampers were also fitted to the rear suspension. Keith first raced the car at the Aldershot Open and very nearly won the race. His best result, so far, was winning the Sports/GT class at the Austrian G.P. at Vienna this year.

Phil Booth and Dave Preston, in the meantime, also designed and built their own independent car, which first appeared at Wombwell for the British Nationals, broken half-shafts unfortunately put them out, but the cars showed great promise. The rear suspension was of the 'de-dion' type (as used by Aston Martin and Rover) and built to a very high engineering standard. A few weeks later, with a new front end fitted, and new half-shafts, Phil Booth won the Belgium G.P. at Gent.

With independent suspension cars from AMPS, PB and Booth/Preston all winning races in 1980, there is no doubt in my mind that the "wobblies" are here to stay. Unfortunately, with their superior technical design, they also bring more expense, complication and the fear, with many drivers, that their existing chassis will be made obsolete overnight. Certainly the change in design is quite dramatic. Driving, and setting-up an independent car requires a different technique, which will take some learning as well as financing. 1981 certainly looks like being an interesting year for 1/8th scale, with no shortage of new products to choose from.

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PROFILE ON NEAL FRANCIS

By Les Pipe



Neal Francis

The first time I met Neal, was when I was racing at a small Club just on the outskirts of Birmingham at a place called Stonall. My car had gone pretty well all evening and towards the end of the meeting, my attention was drawn to a very interested bystander. We eventually got talking about these four wheeled 'beasts'.

It turned out that Neal was no stranger to radio control equipment, being a former National Champion of multi-boat racing (can't keep a good one down you know!). After watching the evening's racing, he decided that he would like to try his hand at car racing. He asked my advice on how best to get started, or more precisely, what car kit to buy to get going. As I was at this time running a Mardave (quite successfully), I advised him to start with that.

Knowing Neal now, I can see why there were quite a number of things that did not suit him. Needless to say, a scratch built car soon followed the purchase of a Mardave. The new car came with the now famous split axle diff, although it was not the same model as the one in the car now. The diff itself, turned out to be quite a project, requiring all sorts of strange adaptations to get it to work correctly in the first place.

The notable feature was an idler gear which unfortunately sapped so much power and required very strange gear ratios to keep it going - it certainly got everyone scratching their heads.

The lad persevered and got it just right. That twelve/sixty five he made famous (and still uses), had everyone thinking.



The hand made diff that's won so many meetings.

Well, the car was quite different in more ways than one, despite the highly individually engineered back end! The final version is quite an engineering piece! As anyone, who has closely examined Neal's car will agree, the wheels are also quite something. Slip on rear and front wheels (yes, front too now!). The tyres are all carefully trued and siliconed - trued in a lathe he built himself (there's no end to his talents!). The front of the car utilises the well tried Associated blocks, but the servo-saver is unique in so much as it is attached to the servo output disc (see photo) mounted transversely across the chassis.



Clear view of most of the car. Servo saver attached to front of servo.

On viewing the car one might be forgiven for thinking it looks rather like a rats nest. All the wiring for the Associated resistor controller and reversing micro switch is mounted on a central pillar cum radio plate. It is remarkable how the car has managed to win so much. However, when one considers the hours spent on the small details and improvements, you or I might miss, then things

really begin to add up. The three weeks careful preparation before the Nationals, perfecting every last thing, from standardizing tyre sizes and silicone patterns, to shaping a gear protector, were well worth it. Large amounts of time were also spent on installing bearings in the front stub axle blocks, to give live axles.

Neal also machined extra material off the front blocks to increase the castor angle. To finish the front end off, there is a very neatly turned set of alloy wheels to accept the push-on-caps. To add to the versatility of the car, the batteries can be charged in a flash - the quick release straps and lucar connections take care of that.

All of this text tells you one thing of this dedicated racer - he is not going to lose any races - you've got to beat him. There certainly will be quite a few people trying to get the National title off him at the end of November. (Bill Maisey, for one, won't be far away, and his story is about as strange as Neal's, for instance, the day we met at the Fire Station..... ... Well that's another story, perhaps for the next issue).

I think it is safe to say that Neal was very instrumental in lifting the standard of electric car racing to its present height by what could only be described as unorthodox methods - the diff, push-on-wheels, gear ratios etc., - but this all helped to make him National Champion, didn't it? In his own words 'championships are won or lost at home in the workshop', and I am sure most racers will go along with him in agreeing with that!



neil with Hobbyspot
team mates Bill and Les.



Neal does do things other than car racing - and he won at this as well!

Of all the people I have met during my involvement in car racing, Neal is the one guy who will not accept defeat, no matter what the odds. If something isn't quite right, his theory is that there has to be an answer for it, and he's the one person who will find it no matter how long it takes.

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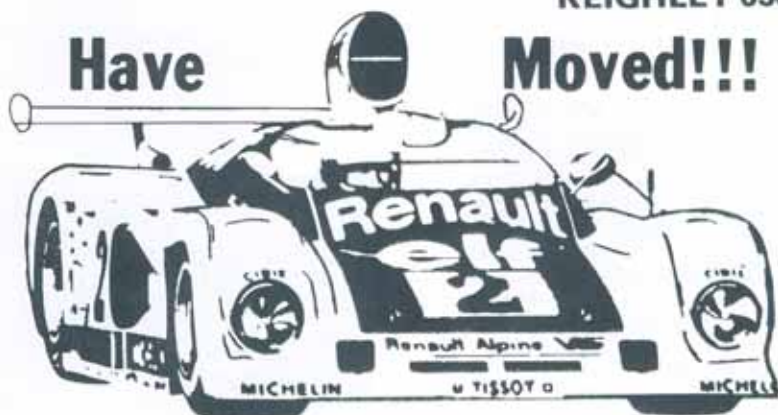
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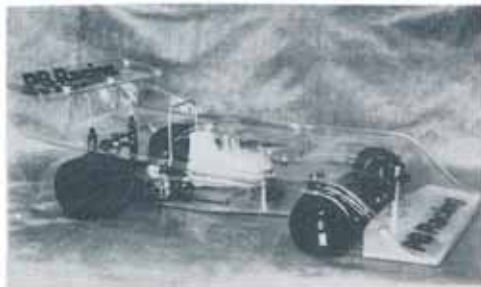


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Next month we are hoping to review these two kits from very well known manufacturers. This issue is just a sneak preview as the kits both arrived much too late to really go to town on them. Needless to say, they are both very interesting in their own respective ways



P.B. Super

On the one hand, the sturdy, reliable, progressive development of the P.B., evolving right up to this excellently turned out P.B. Super, with all the companies goodies to date on board (not suspension yet). The suspension car is not in production yet, but work in that direction is progressing smoothly. (Expect more on that in future editions.)



The S.G. Racing Car.

The S.G. car, on the other hand, is of the new breed of suspension cars, (at least as far as the front end is concerned). It's quite interesting to see this rocking front end set-up, because we tried it in 1/12th scale a while ago, and discarded it.

Obviously, our track are much too smooth to really put this type of set-up to the test.

It really proves the old adage 'horses for courses'.

Anyway all will be revealed in the next issue.

Rotherham Scaledown 80.

By Les Pipe

A full weekend of racing was offered by the Rotherham Electric Car Club recently.

There was an open invitation to join a friendly club meeting on the Friday night which provided a useful opportunity for practise. Saturday was devoted to an open class meeting, and Sunday saw standard class racing. This is not a new formula, but quite a good compromise (as J.D.M. found out at their meeting at Bingley Hall earlier in the year). A good point about these two day meetings is the opportunity they present for a Saturday night "Binge"!

I think, overall, there seemed to be as many surprises at Rotherham as there turned out to be at Bingley. On analysing car performances with so called 'hot' motors against standard motors, there were some interesting facts. The biggest surprise for me was getting my old 'hack' to keep up with these young upstarts, with their "rocket powered bullets"!

Seriously though, there were more than a few drivers cementing their allegiance to the special racing Astro 05 against what could be termed the more thoroughbred high priced (as well as high revving) Cams and AYK's. This is not to say that these two beautifully put together motors are not worth every penny. Anyone who has taken the time to examine them closely will know just what good value for money they really are, with bearings, easily replaceable brushes, small fans, and the like. However, in view of all these obviously advantageous additions there were a lot of drivers installing their special racing 05's AND competing on level terms. This sort of situation quickly begins to provoke speculation as to how standard were these 05's, and will no doubt add fuel to the flames of the "you can't tell me that's a standard motor" brigade that Dennis Trowbridge so aptly summed up in the recent BRCA newsletter. It's about time that everyone closely evaluated the potential of a good 05 motor, allied to a good chassis and a slightly better - than-average driver on the sticks. That's not to say there weren't any 'breathed-upon' 05's about, but even these were only marginally quicker and that extra speed cost quite a few quid! The specifications of the special racing 05 motor (for those of you who aren't familiar with this motor), is 33 winds of 23 gauge wire. From that gem of information, the rule studiers

amongst you will know that it is illegal for our standard class racing . . . as the rules stand at the moment. What the proceedings of this weekend's open class racing must surely point out, is that here is a motor of considerable potential (not costing an arm and a leg to buy) that can compete with "the very best of them" - better in some cases, especially in the braking area (See Dennis's article concerning back E.M.F. on super-winds). This motor can give us good performance and consistency throughout different batches. All this points to the fact that maybe we ought to be convincing the 'powers-that-be" to include this motor in next years rules for standard class racing, thereby providing us all with a very quick moderately priced motor that can compete with whatever anyone can dig up, and thereby end all this motor speculation which arises at most of our national meetings.

The debate on the motor syndrome proved in no way a detraction from the excellent racing, shared by everyone on Saturday. The challenge of getting the car to go faster on a "no holes barred" basis was met admirably by all concerned. Very few grumbles were voiced all day. The main thing that came out of Saturdays racing was that a tailor-made platform was presented to assess all the current motor offerings on display at the same time, pitted against one another on a surface we are all used to, with silicone tyres being the order of the day. When all the shouting was over, these stock production motors namely 05, featured in the final. Admittedly, the result may have been different had this been an outdoor oval, but somehow, I doubt it. Driving skills still count for an awful lot and to drive a car quickly and successfully you have got to have brakes (back to the super-winds and back E.M.F.).

All the finals on Saturday were hotly contested. I won't bore you with a blow by blow account - details are as listed at the end of the text.

Before we go on to an appraisal of Sunday's racing, I must just say a few words about our Saturday night excursion into Rotherham. I feel this will be of great value to anyone contemplating going to any more meetings Phil Maxwell organises - which I hope he will!



Start of 20 + handicap final.

On venturing into town on the Saturday night looking for a restaurant (we were starving after a hard days racing), we stumbled across a rather aptly named restaurant "Ferrari's". I can strongly recommend a visit to the pizza parlour. The decor consisted of pictures of every Ferrari made, the music was loud, and the pizza filled the plates. Excellent value for money and the evening really carried on the theme of the whole weekend. The lads from Derby can testify this, as on our way out, we bumped into them and pointed them in the right direction. They haven't stopped thanking us yet. Remember for next year!!

Sunday's racing started off, as always, with scrutineering and the usual "I wonder what we can get past the scrutineer today" routine. Well, with the aid of the BRCA 1/12 chairman, Richard Gammon, the rules were clearly defined and racing commenced. The early pace setters were Neal Francis with a 30 lapper, hotly pursued by Bill Maisey and myself on 29 laps. No-one was able to better these scores, so the three of us, together with Adrian Beal went straight through to the final. The four remaining places were contested for in 2 semi-finals. The final line-up and results are at the end of the text.

Phil Maxfield must be thanked for undertaking the mammoth task of organising the weekend's racing. I sincerely hope he was not put off by the indifference people had about what constitutes a standard motor (does anyone REALLY know without opening the can - If you do, we would like to hear from you).

The only criticism I detected floating around, was about the size of the hall Well, worry not, Phil assures me that a hall twice the size has been procured for next year's Scaledown.

So, that only leaves us to look forward to Scaledown '81! Thanks Phil.



**Phil Maxfield -
the worried looking organizer!**



**Graupners new charger -
seen in pits.**



**The winning team
1st 2nd and 3rd**

Standard class final

| DRIVERS NAME | H/ CAP | YRS. DRV. | KIT or SCRATCH | CHASSIS MAT. | NICADS | DIFF TYPE | MOTOR | FRONT TYRES | REAR TYRES | SPEED CONTROL | BODY SHELL | RADIO GEAR |
|----------------|--------|-----------|------------------------|-----------------------|-----------|-------------------------|------------------------|-----------------------|-------------|--------------------------|---------------------|-----------------|
| 1 LES PIPE | 50 | 3 | Associated lightweight | Fibre | Soft 120% | Associated limited slip | Assoc. 05 | Raydio rubber | Arma-flex | Parma resistor 1&1/4 ohm | McClaren M 20 Lexan | Futaba T/stick |
| 2 NEAL FRANCIS | 50 | 1½ | Scratch | Lexan | Soft 120% | Own split axle geared | Mabuchi | Armaflex | Arma-flex | Parma resistor 1&1/4 ohm | McClaren M 20 Lexan | Futaba T/stick |
| 3 BILL MAISEY | 50 | 2 | Associated lightweight | Fibre | Soft 120% | Associated limited slip | Parma renault | Arma-flex | Arma-flex | Parma resistor 1&1/4 ohm | McClaren M 20 Lexan | Futaba T/stick |
| 4 PHIL STONE | 40 | 2 | Associated lightweight | Fibre | Soft 120% | Associated limited slip | Parma renault | Mardave medium soft | Raydio neo. | Parma resistor 1&1/4 ohm | TOJ BMW Lexan | Futaba T/stick |
| 5 PETE CLARKE | 35 | 4 | Standard Associated | Lt/wght. Fibre Assoc. | Soft 120% | Associated limited slip | J.D.M. Hi-torque motor | Medium soft Raydio | Raydio neo. | Parma resistor 1&1/4 ohm | TOJ Assoc. Lexan | Futaba T/stick |
| 6 ADRIAN BEAL | 40 | 2½ | Associated lightweight | Fibre | Soft 120% | Associated limited slip | M.R.P. 35 Turns | Raydio medium | Raydio neo. | Parma resistor 1&1/4 ohm | TOJ BMW Lexan | Futaba T/stick |
| 7 STEVEN DAVIS | 0 | 1 | Associated lightweight | Fibre | Soft 120% | Associated limited slip | Parma renault | Mardave medium rubber | Arma-flex | Parma resistor 1&1/4 ohm | TOJ BMW Lexan | Futaba L series |
| 8 RUSS GILES | 42 | 3 | Associated lightweight | Fibre | Soft 120% | Associated limited slip | Assoc. 05 | Raydio medium rubber | Raydio neo. | Parma resistor 1&1/4 ohm | Porsche 917 Can Am | Futaba T/stick |

Open Final Results

| DRIVERS NAME | H/ CAP | YRS. DRV. | KIT or SCRATCH | CHASSIS MAT. | NICÀDS | D.IFF TYPE | MOTOR | FRONT TYRES | REAR TYRES | SPEED CONTROL | BODY SHELL | RADIO GEAR |
|---------------------|--------|-----------|-------------------------|--------------|-----------|-------------------------|---------------------------|-----------------------|-------------------|--------------------------|---------------------|------------------|
| 1 NEAL FRANCIS | 50 | 2 | Scratch | Lexan | Soft 120% | Own geared | RS 54 Mabuchi | Armaflex or Med.rub. | Arma-flex | Parma resistor 1&1/4 ohm | McClaren M 20 Lexan | Futaba T/stick |
| 2 LES PIPE | 50 | 3 | Associated light-weight | Fibre | Soft 120% | Associated limited slip | Special racing 05 | Raydio med. rubber | Arma-flex | Parma resistor 1&1/4 ohm | McClaren M 20 Lexan | Futaba T/stick |
| 3 BILL MAISEY | 50 | 2 | Associated light-weight | Fibre | Soft 120% | Associated limited slip | Special racing 05 | Mardave med. rubber | Arma-flex | Parma resistor 1&1/4 ohm | McClaren M 20 Lexan | Futaba T/stick |
| 4 FRED HATFIELD | 50 | 2 | Associated front & rear | Own fibre | Soft 120% | Schumacher limited slip | Cam | Mardave medium rubber | Arma-flex | Parma resistor 1&1/4 ohm | Lola | Futaba T/stick |
| 5 WAYNE DAVIS | 45 | 2 | Associated light-weight | Carbon fibre | Soft 120% | Associated limited slip | Associated Goldspot Reedy | Medium Raydio | Soft neo. Mardave | Parma resistor 1&1/4 ohm | Dome Lexan | Futaba T/stick |
| 6 PHIL STONE | 40 | 2½ | Associated light-weight | Fibre | Soft 120% | Associated limited slip | AYK GZ 1200 | Mardave medium rubber | Raydio neo. soft | Parma resistor 1&1/4 ohm | TOJ BMW Lexan | Futaba T/stick |
| 7 JOHN BAKER | 35 | | | | | | | | | | | |
| 8 DENNIS TROWBRIDGE | 50 | 2 | Associated light-weight | Fibre | Soft 120% | Associated limited slip | Ken Rigby modified | Cambria medium rubber | Arma-flex | Parma resistor 1&1/4 ohm | TOJ BMW Lexan | Futaba Medallion |

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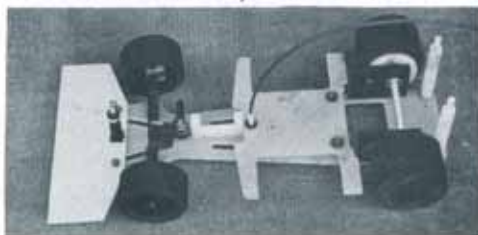
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|-----------------------|-------------------|---------------|
| 1. Alpha Track Parts | 3. Airdale Models | 5. Hobby Spot |
| 2. C.S.J. Electronics | 4. Sarik-Vacform | 6. Videk |

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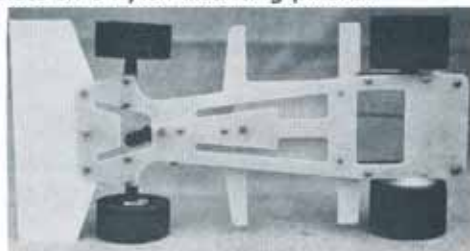
ALPHA TRACK PARTS

The first offerings in our Market Place column this month are from Alpha Track Parts. The excellently turned-out rolling chassis arrived ready-assembled.



Alpha Track Parts - Rolling Chassis.

Its neatly-cut fibreglass chassis of unusual design hangs securely below the shaker plate on 3 nylon mounting pillars.



Unusual design of the fibreglass Alpha chassis.

At the front of the chassis, the individual axle blocks support the aluminium stub axle units, which contain the twin raced live stub axles (1 feature, I think, unique to this production competition chassis).



Close-up of Alpha twin ball-raced stub axle.

At the rear of the car are the, now, well established Alpha black nylon 1/4 I.D. ball raced axle blocks.

Another feature of this car which is likely to find its way onto many a scratch-built car, is the whip aerial (nothing fantastic-but very necessary)

The Alpha Track Parts attractive split axle diff. also arrived with this chassis package as an optional extra. This is a very well engineered unit and sure to increase the cars' considerable potential.



The very neat miniature Alpha diff.
(This needs to be seen)
(to be appreciated.)

The diff. weighs very little, being turned in alloy. This unit also comes complete with its own bearings (as they are slightly different to the standard ones), to fit into the Alpha axle-blocks.

A new 55 tooth gear completes the package.

All parts of this car are available separately, so will no doubt find their way into many scratch-built projects.

**** **

C.S.J. ELECTRONICS

C.S.J Electronics of Leicester will be a new name to most of you. His range of electronic gadgetry is quite extensive, and I have had the pleasure of trying an assortment of them.

The first, and what for me turned out to be the most useful, is a little device he! calls a 'motor conditioner'! This little unit was constructed especially for me, to 'run-in' electric race-car motors. It will give a variable current supply from the 'out'end

Hobby Spot Meter

(see photo) when connected to a constant 12 volt source (i.e. car battery or charger) on the 'in' end. By turning the white knob (see photo) the voltage can be proportionally increased from 0 - 12 volts.

The current required for successful running-in, seems to be between 2 - 6 volts, so this unit proved to be adequate. It is continuously rated, so 30 - 40 hour cycles are no problem. The dimensions of this unit are 4½" long x 2½" wide x 1½" deep - so it's portable!

Motor conditioning unit.
Unusual - but useful.

The next 'magic box' I had the pleasure of testing was a nicad cyclor (6 cells 1-2A/H packs).

This was designed to cycle my car battery packs, and I am assured that it keeps them in good shape and stops the memory syndrome. The instruction sheet reads - "discharges nicad pack at a controlled rate to a recommended level, then automatically switches over to the charge cycle". The unit then continuously charges the pack until it reaches a pre-set level of 9.6 volts, then switches off, leaving the nicads in a charged state. The dimensions of this unit are 4½" long x 3½" wide x 2" deep. This unit takes the chore out of cycling a new pack (or even an old one). Once connected up it's only a question of pressing buttons.

The third unit in this trio (and one that is likely to be as much use to all aspects of modelling) is the Servo Tester.

This unit runs off any standard RX nicad pack or 6 volt dry battery, and is suitable for use with any modern digital servo (positive pulse, 1.3-1.8 m/s. e.g. Futaba, Sanwa etc.). It simulates the output of RX to allow linkages to be "set up", without using the TX. It can also be used as a useful fault-finding device at race meetings, without the need to switch on your TX. Dimensions are 2½" long x 2" wide and 1" deep - so no problem with size - 'corner of the kit box' job!



Servo Tester - white dots on front indicate various positions.

**** * * * * * * * * * * * * * * * * * *

Liquid crystal digital volt meters are finding their way in ever-increasing numbers into the electric racing scene.

From an electronic experts point of view, their value as battery charging aids is of questionable merit but that doesn't deter us all from buying them.

The latest offering on the market, is the very neat, compact EnElec unit, marketed by Hobby Spot, Birmingham.

The business end of the meter is contained in a smart orange and grey plastic case measuring 2½" width, 4½" long and 1" deep. This meter is aimed primarily at the car market for monitoring charge rate. It has a limited range of up to 20 volts.



Hobby Spot Meter

It should not be confused with the more comprehensive L.C.D. multi-test meters available on the market from Tandy, the commercial chain stores. This unit will appeal to the guy who does not want, or cannot use all the facilities of a multi-meter. The probe ended lead of the more familiar, previously mentioned units, have been replaced by equally useful croc-clips. A large, easily accessible on - off switch completes the front panel of the meter. The power for the EnElec is supplied by a 9 volt dry cell battery (which should have a life of approx. 12 months obviously depends on usage how many times have you forgotten to switch it off overnight!).

To install (or replace) the battery, which incidentally is not supplied, you have to remove the front panel by unscrewing the four self-tappers (see photo). Once inside the case, the battery clip makes itself plainly obvious. The component board is very neatly laid out. It is completely dominated by the massive digital read-out chip. The board gives one the impression of solidarity by virtue of its simplicity. This unit will undoubtedly give its purchasers sterling service.

**** * * * * * * * * * * * * * * * * * *

Whilst down at Brean Sands to have a look at Pontin's modelling fortnight, I ran into Derek Proops of Videk Ltd.

Videk market small tools, nicads and lots of very useful bits and pieces so necessary to us modellers.

After a chat (and a little arm bending), Derek came up with two very useful items for review in this column.

The first is a 17 piece socket wrench set, comprising of 11 sockets, ratchet handle, 2 extension bars, flex handle, cross bar, and sliding bar.

The quality of this ex-Japanese tool set is



good, with a chrome finish and nice feel to them. They come nicely presented in a metal case. Mine have so far proved to be very useful in the workshop.

Finally I found the most surprising thing about this set was the price. It retails in the shops at what I consider to be remarkably good value at only £5.95.

The second set of tools I acquired from Derek was something I had been looking for for some time - a tap and die set that didn't cost an arm and a leg!

The 'Kinzo' 20 piece tap and die set, again Japanese and B A sizes appears to fit the bill.

This useful little set comprises of 9 taps and dies 0 - 8 B A, and is complete with holders. Again presentation is good, with a nice plastic cast that makes work shop storage easy. The quality of the cast tap and die holders leaves a little to be desired in their finish, but should be quite adequate for the job.

To date I haven't been able to test this set extensively, but consider it to represent excellent value at only £7.75 retail and will, I am sure compliment many a work shop.

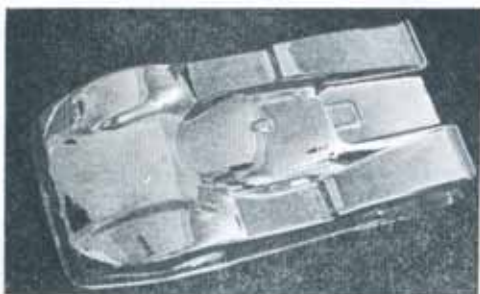
Both sets can be obtained from good model shops (and I believe in other sizes as well as B A) or from Videk Ltd., 166 Stanmore Hill, Stanmore, Middlesex, HA7 3DD.

Tel: - 01-954-2996.

A fairly new anme to the market, they have been trading for approximately 12 months (I'll no doubt hear if I'm wrong).

Their complete range of bodysells is listed in their advert.

The two bodysells sent to me for inspection were a Ferrari 512 (clear lexan)

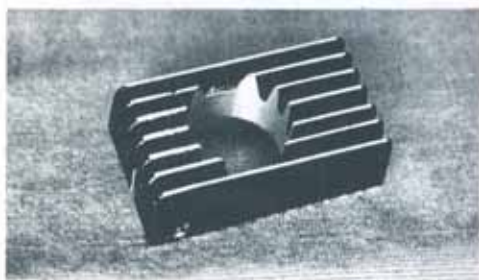


AIRDALE MODELS

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A nicely turned out die-cast anodised aluminium heat sink.

**** * * * * * * * * * * * * * * * * * *

That about sums up Market Place' this month. A note to all manufacturers and would be manufacturers (i.e. "garden - shed experts"!!), anything you feel would make interesting material for the Market Place column, please post to me at :-

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for review. Help us to help you!!!

**** * * * * * * * * * * * * * * * * * *

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| Cambria (Front Wheel Drive) - Saab or Lamb Countach £36.95 (Ni-Cads £16.00) | |
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| Tamiya - Sand Scorcher | £69.95 |
| Lectricar - Stock Car | £59.95 |
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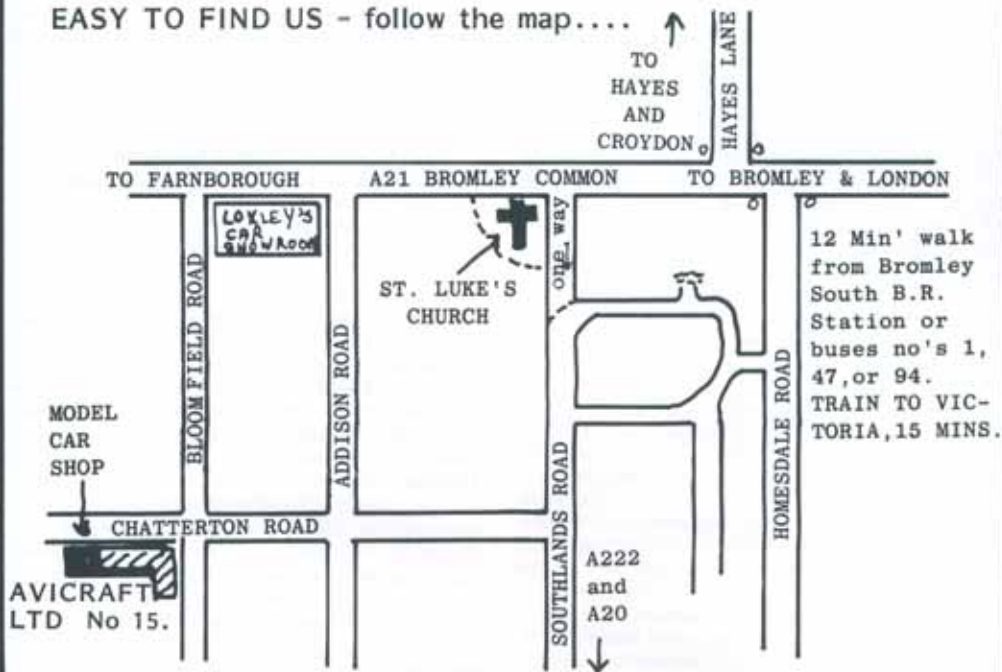
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AYK Kit Review

by Ron Martin.



The complete Kit.

First impressions; presentation is very good, the car looks almost ready for use, both front and rear ends are assembled to the chassis

The bright, contrasting colours of shiny black fibre glass chassis, the gold coloured aluminium battery, radio, servo plate, the red front and rear bumpers, and the white plastic wheels are eye-catching.

Close examination revealed a central differential gear, and that all four wheels had ball and thrust races. The battery and servo position being established on the carrier plate.

By the way, the kit does not include the radio gear, servos or batteries, but a GZ 1200 motor was supplied.

A comprehensive package of goo-glies are included, which should give delight to the advanced driver sorting out the right gear ratios to use.

After reading the instruction on the front axle steering adjustments one wonders 'how the hell will we find the right or best position'. Still, thank heavens it's already put together. All we have to do is to fit the servo to the servo saver.

Some two and a half years ago, I became interested in electric powered radio controlled racing cars, in the pursuit of a hobby for my youngest son Karl age - twelve years.

Since then I have spent many hours in the garage come workshop, working on electric racing cars, for the benefit of Karls' driving ambitions.

You may be wondering what this has to do with a Car Kit Review, well, writing a few lines about oneself seems to be the best way of getting me to put pen to paper. For I am still wondering how on earth did Les Pipe talk me into writing about A.Y.K. Chevron B36 Special Racing chassis 1/12 electric racing car.



Top view of chassis showing the variable castor angle front axle beam.

The servo saver is a spring load vee design, simple and very effective, its spring loading being adjustable.

The ceramic speed control looks robust, which must be a very good point, and with the right setting - up, should work very satisfactorily. One snag, due to the method of construction, live current runs into the main chassis mounting plate, which could prove dangerous. 'Why this is not isolated, I do not know.



Rear view of A.Y.K. showing profile of miniature diff.

Wheels and tyres look good, but the tyres need to be glued to the wheels and require dressing to true. The same problem for all car owners occurs, the wheel axle diameter is different to other manufacturers and prevents interchanging. As all race drivers know, one set of wheels and tyres is useless. Why, Oh-Why, don't manufacturers get together and standardize on front and rear axle sizes. We all know that road holding comes from the right wheel and tyre combination and without these races cannot be won.

Now that's off my chest back to the A.Y.K. Chevron B36. The Lexan body-shell is one of the popular racing shapes and should look attractive when painted.

The Chevron B36 looks good, and should be a good buy for the beginner and the driver wanting extra refinements of gear ratios, central diff and steering adjustments.

Next article should tell how we raced the Chevron B36.

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Exit 6

1980 European Championships 1/8 Stock Cars.

REPORT BY

PAUL DUDLEY

Sec. Stockcar Racing England

This was the first major meeting to be held on this circuit and the tarmac surface was only 3 weeks old. This gave all the drivers a lot of tyre problems.

All the English drivers arrived around Saturday lunchtime, and started trying their cars straight away.

On first inspection of the surface, we all thought it would be extremely slippery but on trying the cars, it was found to be the complete opposite. The surface grip was exceptional and to start with, most of the cars simply rolled over. Most drivers solved this problem by fitting much harder tyres than normal. Practice went on until about 5.30 p.m., with some drivers still having not yet found the correct tyre combination.

Sunday morning found those drivers making good use of the early 1 hour practice before the qualifying heats. These started at 10.30 a.m. Each driver was to drive 2, 4 minute heats, with his highest score to count towards qualifying.

The top 27 went through to the finals. The first three to the main finals, the next three to the 1/2 final, and the next three to the 1/4 final. The remaining 18 drivers formed 3 heats with the top two from each heat to form an 1/8 final.

The heats saw some superb driving with the pace being set at around 35 - 36 laps to qualify for the finals. The first guy to break this barrier was Johan V.D. Bogaart with a blistering 40 laps, shortly after another Dutch guy, Jarig V.D. Meulen matched this with 40 laps also. No other driver could match this, and only English driver, Brian Williams managed the closest with 39 laps.

After all the qualifying heats there was a break for lunch, while the positions for the finals were worked out. This was also a time when the drivers who had qualified worked meticulously on their cars, checking everything was O.K., and changing damaged tyres ready for the final.

All the finals were run over 35 laps instead of 4 minutes. Competition was very close in all the finals, with not one driver giving an inch to the next.

Each time, the first three of each final went on to the next, until around 5 o'clock saw the line up for the main final,



Paul Dudley
ENGLAND

Johan van der Bogaart
HOLLAND

Brian Williams
ENGLAND

The final was very fast indeed, with every driver pushing his car to the limit. The atmosphere at this time, was worthy of a full size race meeting, with the spectators and pit crews checking on their respective drivers.

When the first driver passed the finish line the results were as follows :-

| | | |
|-----------|--------------------|---------|
| 1st place | Johan V.D. Bogaart | 35 laps |
| 2nd " | Paul Dudley | 34 laps |
| 3rd " | Brian Williams | 34 laps |
| 4th " | Jarig V.D. Meulen | 33 laps |
| 5th " | Ben Vethuis | 32 laps |
| 6th " | Henk Schellings | 31 laps |

CAR DETAILS

| Driver | Radio | Engine | Car |
|-------------------|--------|---------|--------------------|
| J. V.D. Bogaart | Robbe | Veco 19 | Mardave modified |
| P. Dudley | Futaba | S.T.X21 | Puma MkII modified |
| B. Williams | Futaba | S.T.X21 | Puma Internat. |
| Jarig V.D. Meulen | Robbe | Veco 19 | Scratch build |
| B. Velthuis | Robbe | Veco 19 | Mardave modified |
| H. Schelling | Robbe | Veco 19 | " |

All the Veco 19s had American Piston/liner assemblies.



from left to right:-

Henk Schellings, Johan V.D. Bogaart,
Ben Velthuis, Brian Williams,
Paul Dudley, Jarig V.D. Meulen.



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| Fuel Pump | £ 5.31 | Warning Lights | £ .88p each |
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| Starter switch | £ 1.30 | | |

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JIM DAVIS 24Hour Endurance Team Race

REPORT BY A NON-RACER WHO 'STAYED THE COURSE' FOR 24 HOURS!

Saturday

2 p.m..... and the air is full of comments, plans, strategies for the fast approaching record-breaking 24 hour Endurance Race. Everything looks exceptionally well organized. Signs Pete and Taff are in charge again! Apparently the organizers have been here since six a.m. - getting everything ready. It certainly looks as if they have worked very hard. People are frantically racing up and down the stairs from the car park to the track with boxes, chairs, cookers etc. In fact, it took us longer to pack the car for the weekend than when we go for a weeks holiday. Still, we need to come prepared for the following 24 hours in a cold, dark underpass in the centre of Birmingham. (Rumour had it originally, that we were running in a nice warm hall at the National Exhibition Centre, but unfortunately this was not to be.)



3 p.m..... Everyone seems to be getting very tense - waiting for the start. A certain team have got a 'star' member missing. Two messengers are sent to get him out of church (he's attending a wedding) - to no avail - for once something comes before racing!! Shrieks from the pits as two pit tables collapse. Phil is stuck underneath trying to hold it all up! Excitement mounts as the seconds tick by for the start of the record making meeting.

4 p.m..... Each team is putting in 101% effort - will it last for the 24 hours. There's the mad panic which is usual at the beginning of team races! In the first hour things are beginning to settle down and the shouting and shrieking diminishes as the teams begin to get organized.

5 p.m..... Calor gas stoves are being lit, and now begins the never-ending stream of tea and coffee.

6 p.m..... Panic over lights - it's beginning to get dark. Some clever people thought about this and came prepared. Some of the appliances need to be seen to be believed. Other people are making a futile dash around Birmingham to see if there are any electrical shops still open. Local people are charging home to bring back lamps etc. Rumour has it that Dave



Taylor's wife is now sitting in the dark in her Chelmsley Wood home 'cos Dave's pinched the light filament! Pit tables are being moved nearer to the thoughtful people who came prepared. - One way of making new friends.

7 p.m..... The pub nearby is getting a lot more custom tonight - whether its for the ale or the loo - use your imagination!

8 p.m..... Whiffs of hot dogs, beef-burgers etc. are floating through the air. It's marvellous how you can rough it when you're pushed!

9 p.m..... 5 hours gone - 19 to go! What a prospect. The racing is getting a bit monotonous now with the top four positions unchanged. Everyone is hoping something drastic will happen to another team. We tried gassing someone, but the wind was in the wrong direction.

10 p.m..... People are beginning to look considerably fatter. Is it the extra clothes they are putting on - or the hot dogs they're eating? Joe is trying to stay cheerful with his rendering of "I'm H.A.P.P.Y.!" He's now been given a public warning! (not for singing, I hasten to add!)

11 p.m..... One or two glazed expressions now! People are disappearing under sleeping baps. Quick return to the pub to put on extra undies and last visit to loo before it closes. Reckon it's the first time the bar maid has been asked for three gallons of cold water. These Norfolk lassies have 'the gift of the gab'.

Sunday.

12 a.m..... the magical hour. Trust J.D.M. to choose the weekend the clocks are put back. What a way to spend the extra hour! One or two dubious characters are walking round the pits now the pubs have closed - still, there are plenty of strong, butch men to protect the females if needs be. There seems a lot more shouting and panicking now. Drivers and cars are beginning to suffer fatigue.

1 a.m..... bottles of whisky etc. are appearing now - either to keep people warm or to drown their sorrows.



One poor soul has had a 22nd. birthday and has been given given the bumps - did resist throwing him in the fountain though.

2 a.m..... fatigue creeping on. Getting colder as people are getting tired. People are not recommending having a nap they say they feel worse afterwards.

3 a.m..... One team have lost a member due to him falling down a hole on the way to the loo - unfortunately he has cracked a bone in his foot. The loos are a long way away and across very dark, rough ground. The men are finding alternative arrangements - the ladies are going in groups! Pot Noodles galore - must have been invented with something like this in mind.

4 a.m..... Half way through. Big Jim says the second half always goes quickly - we'll have to wait and see if he's right. New fashion to keep warm.....towels round the head! Marshalling is getting slack with some teams. Some just pop their heads round the corner when marshals are asked for and then disappear again - no-one enjoys marshalling all night.

5 a.m..... Did I say it was getting cold at 2 a.m.? - It's even colder now - or maybe it's because we're getting tired. Must be hard going - Neal (usually teetotal) has turned to the bottle. Swears his car is going faster - but not sure in which direction!

6 a.m..... Everyone is saying it's getting colder. The two top teams are on the same lap now and have completed (so statistics say) 175 miles. Vitaplus tablets are being passed around - hope they don't take too long to work!

7 a.m..... pouring with rain and the roof leaks. Not only are we cold, but mighty wet. Having to wade through puddles to get to the track. People are beginning to arrive who have been home for a good nights sleep - looking refreshed.

8 a.m..... The rain and cold are really getting through to us now. Lovely smells coming from the pits of bacon, sausages, etc. Well, we've got to do something to keep our strengtn up. There's a procession of wives, girlfriends etc. coming up the stairs from the caravans below with full English breakfasts on real plates for their menfolk. It's a good job the ladies are here to keep the men going.

9 a.m..... Marshals (some few familiar faces) are beginning to get rather annoyed with irate shouts from the drivers to rescue their cars. We're getting tired too, you know.

10 a.m..... Now daylight has re-appeared, some people seem to be livening up again. It's still cold and damp, and no-one is taking off their extra layers put on during the night. There are some exciting battles with teams, as the gaps between them alter. A lot of people thought beforehand that some teams would drop out during the night - but so far there are still 15 teams!

11 a.m..... Several grievances about counting system not working accurately. Taff and Pete have rigged up (with the help of Veeder-Root) a gate system whereby every team has their own gate to pass through to score a lap. It is a good idea because it would have been very difficult to get people to sit at a lap counter for 24 hours. Some grievances were sorted out and some weren't!

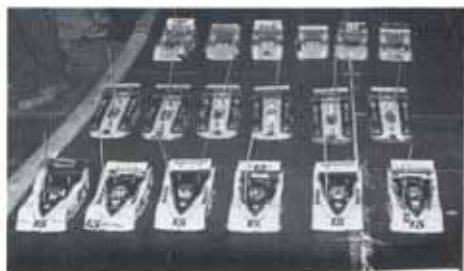


**THE HEART OF THE
TIMING EQUIPMENT**



DRIVERS ROSTRUM & GATE SYSTEM

12 p.m..... lots of warnings are being given out to teams not complying with the rules. Teams tend to think that they are being picked on, but when talking to others, they can see that other teams are having the same trouble. Everything seems to have gone very smoothly when considering the time factor. Consider the usual hassle at a day's meeting and compare this and add the fact that everyone is getting tired and irritable (racers, organizers and marshals alike).



3 WINNING TEAMS

1 p.m..... Into last two hours now and the excitement seems to be mounting. Each team seems determined to improve its position. The enthusiasm is incredible - after 22 hours. Lots of spectators now and the public announcer, Dave Bishop, seems to be involving them in the excitement. So many statistics on the racing have been made (e.g, how many road miles covered, how much charge has been used etc.) - think I'll work out how much tea and coffee we've got through over the weekend!

2 p.m..... Last hour! Now looking back on the race - it doesn't seem long since we started. As usual, you tend to forget the long, cold hours of the early morning. In fact, a lot of it seems like a dream - shows what a state we must have been in. The announcer is getting

the public to voice their support for the teams and this is adding to the general air of excitement. Apparently one team, Ashby, have been sponsored for charity on how many laps they have done. This seems a good idea. Makes their effort more worthwhile. The teams are all fighting to the end - even though the positions now cannot be altered.

3 p.m..... the end - and the clock on the town hall failed to strike - what an anti-climax. Feel as if we should have a loud fanfare of trumpets. Presentations now and then the unpleasant job of going up and down the stairs loading the car up. I think the main thought in most peoples minds is to get home, have a hot bath and go to bed! All I can say is "thank goodness it's half term next week"!

When we read the addition to the Guinness Book of Records, stating that 1/12th electric cars completed a 24 hour Team Endurance Race, will it all seem worthwhile??? To whoever takes up the challenge to improve this record, may I make two requests - if outdoors, choose a summer month, if winter, find a nice warm hall PLEASE!!!

Final Results and Statistics.

The winning team completed 279 miles over the 24 hours, and the total mileage for all 15 teams was 3,400 miles.

Positions:-

| | |
|----------------------|-----------|
| 1) Associated | 4724 laps |
| 2) Gemini | 4703 laps |
| 3) HobbySpot | 4603 laps |
| 4) Maidenhead | 4441 laps |
| 5) Schumacher | 4336 laps |
| 6) Alpha Track Parts | 4319 laps |
| 7) Jim Davis Models | 4290 laps |
| 8) Ripmax/Lectricar | 4183 laps |
| 9) P.A.T.S. | 4176 laps |
| 10) Mardave | 4117 laps |
| 11) Spectron | 4105 laps |
| 12) K & T Tyres | 3646 laps |
| 13) A.Y.K. | 3249 laps |
| 14) Ashby Model C.C. | 2690 laps |

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What's next for 1/8 by Fred Liversey

Around this time of the season most competitors must, I am sure, ponder for quite a few hours - what to do next?

The majority of competitors are what I term 'middle men' and we middle men attempt to find technical advantages which may give us a slight edge against the best drivers.

If we assume that the driver is of a reasonable standard, and keep reliability foremost in mind, the results obtained with competition cars are determined basically in three areas. i.e. -

1. Handling
2. Braking
3. Engine performance

The way I have listed the areas in order of merit may cause some controversy, but if we consider each area separately, and the possible future developments my importance list may hold some truth.

1. Handling - This simply means how well a car travels round a corner, and can be deviated from the intended path when avoiding an obstruction.

The handling should also be similar at all speeds and on various surfaces.

The opinion expressed by many is that our track surfaces have deteriorated over the years - and there is a great variation between circuits. It comes as no surprise then, to find that the exponents of suspension cars insist that the only way for the coming season (1981), is to use suspension.

My thoughts initially were rather mixed to say the least. Foremost in my mind was the thought that reliability would suffer, as without a doubt 'simple' is always best. The suspension cars available at present haven't gone without their problems, but these seem to have been ironed out. The advantages of suspension are apparent from this years 'Nats'. I have tried a simple suspension system and agree that it does initially seem easier to drive. This could well be due to the way the suspension absorbs bumps, or is more predictable on landing. The only reservations I have are that the steering angles (i.e. castor camber etc.), are completely adjustable, which may present difficulties in obtaining the ideal settings for a beginner.

In the past, one of the greatest influences on handling has been selection of

tyres, and if you consider that the car is in contact with the track surface by an area approximately $2\frac{1}{2} \times 1/4$ on the rear tyre and $1\frac{1}{2} \times 1/4$ on the front, then you can see why.

As far as I understand from the suspension guys at the moment, the tyres have far less of an influence on handling, so time saved on tyre selection may offset time taken to set up suspension. One suspension exponent insists that the effect of a suspension car, is to give an advantage similar to the effect when we fitted diffs.

2. Braking - This is area, I feel, where a great deal of development has yet to be carried out.

When the brakes are applied before the corner, the cars' weight is transferred to the front wheels, - the rear wheels go light and if the driver is not careful, or the brake now fitted isn't set correctly, the wheel locks and there is a danger of spinning out.

Some competitors, in the past, fitted twin discs on cars with differentials, but difficulties were found attempting to set the discs to brake evenly. This balance problem can be overcome, and the front wheels could be braked, but I'm afraid it can only be practically carried out using hydraulic cylinders.

Flexible hydraulic pipes can easily feed the front brake calipers. The travel of the master cylinder can be adjusted, and its operating rod is easily connected to the servo. The rear calipers can be fed from the same master cylinder, or an additional master cylinder, in order to achieve balance front to rear.

The advantages of hydraulics need to be considered if the front calipers are of a similar size, and the pad material and size is similar, then in theory, the braking effect is balanced for either side. A similar effect should be found at the rear. (Also pipes are easier to fit than complicated linkages). These thoughts are not new, this is a similar arrangement to full size cars. The disadvantages are - obviously - first the problems of making the parts - but this could have been said before we had diffs. Secondly, the problem of reliability rear its ugly head again.

The fact that keeps niggling at my mind is that if it gives an advantage, then it may be the next major development.

Makes you think - don't it?!

3. Engine performance - A good deal has been written in the past on engine development - most of the progress has been on reliability and longer life. The present breed of Schnurle Ported ABC engines can lead to a feeling of over confidence. Some reports of metal fatigue have been found towards the end of this season, and a fault that has shown up is that if an engine breaks a rod, and the crankshaft is used in a further engine rebuild - the crankshaft invariably breaks.

Connecting rod bushes still seem to break up. I'm not sure if the bushes break first or they break loose in the rod, then break up. On rods I make myself, I always press in the bushes using Loctite 648 retaining compound as well - and only had to replace them when they got worn.

Some competitors, I believe, have been using Titanium con-rods, but I have not heard any conclusions on their use.

Fitting high speed bearings is the norm, these days and I have had some trouble with the front bearing cages, - but this may be due to grit getting past the seals. Modification by the engine manufacturers have brought port timings to similar standards and the O.S., O.P.S., and K.B. all have their particular camp.

The only problem I see that could develop next season is the possible ban on nitro-methane - and a problem it will be.

The engines, especially piston/liner fit will have to be first class - the point could be reached where a piston/liner may be needed for each meeting.

The engine as a whole will have to be held to much better tolerances - the subsequent costs will soar!! Don't believe me? Just ask someone in competition model boating!

One condition which undoubtedly is covered by all the areas, is the weight of the car. Of late there has been a weight increase and it will have to be carefully considered on suspension cars. If we can reduce weight to nearer 5lb then there is less weight for the suspension to deal with, braking pressures need not be so high and the increase in performance, engine wise is obtained for free.

I hope my observations provoke some thought, and maybe assist towards the question of "What Next"?

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That's Never a standard motor!

by Dennis Trowbridge (Chairman - Cleveland R/C Model Car Club).

After competing in several open meetings this year, the most often heard comment, apart from "what time does the bar open?", must be "that's never a standard motor!".

Yet if you care to take a closer look at some of these supposed not so standard motors, in 99% of cases they are perfectly alright. Just how, then, can some people make their cars go so quick, when they use the same motors as you and I.



Motor line up - left to right - Renault, Cam, tuned Astro 05, standard Astro 05.

First of all, what do we mean by a B.R.C.A. standard motor. The official definition is:-

No rewind or modified motors allowed, including re-timed, balanced, epoxied or ball-bearinged.

Igorashi 05 - often labelled as Associated 05, Jerobee 05, Parma Renault etc. These have 35 turns of 23 gauge wire. Mabuchi RS 54- This must have at least 30 turns. The wire gauge on Mabuchi motors is normally 22 gauge.

A couple of things to point out with regard to the first sentence of the rules:

Firstly, virtually all 05 motors including those named above are balanced. The majority from my experience are also re-timed, most are also epoxied. So if we interpret the rules exactly as written, most 05 motors are illegal. However, if we consider the reasons the manufacturers carry out these small modifications, it makes sense to quickly amend the rules and delete the first paragraph. The only reason these things are done is to achieve a more CONSISTENT PERFORMANCE from one motor to another, using the standard wind of 35 turns of 23 gauge wire.

The Mabuchi motor, on the other hand, is not balanced, epoxied or re-timed and



Dennis Trowbridge

therefore in its 30 turn form is perhaps one of the very few totally "legal" motors around. However, as most people are aware, the variations from one motor to another are tremendous and to purchase one for competitive racing is a bit of a lottery. Yet in theory it is more powerful a motor than the 05's. In reality this is seldom the case.

So how do we choose a good standard motor for open meetings. Do we want one with high revs or good magnets or low current consumption. The answer is YES! However, the three very often do not all go together, let me explain why.

First of all, you need to understand some motor principles, such as the generator action. As you may already know when a motor is spinning, it acts as a dynamo and generates power. It does this regardless of whether power is being applied or not. By shorting out this power, known as reverse voltage or back E.M.F., we get braking action.

Let's consider what limits the revs a motor will do on a particular voltage. Suppose we apply 7.2v to a motor, it starts to spin, as it does so it also begins to generate reverse voltage which opposes the 7.2v battery power. As the motor spins faster and faster it generates more and more reverse voltage until it finally

almost equals the 7.2v battery voltage. At which time the motor will not rev any higher. If it did, it would, in fact, begin to charge the batteries, a nice situation, but in reality unobtainable.



Special Racing Astro 05.

To get a motor to rev higher, we can do two things, firstly, increase the voltage. As this is governed by the rules on batteries, we unfortunately cannot do it by sticking in extra cells! However, charging techniques can greatly alter the level of voltage your six nicads will deliver for the duration of the race, as this will be covered by another article published in this magazine shortly, we won't discuss it here, but there is another way.

The second way is to reduce the generator action of the motor, which is done by re-timing it. Timing on a motor controls when current is applied to each coil via the brushes on the commutator. By advancing the timing (i.e. apply current earlier) the efficiency of the motor as a generator is reduced and it will of course rev higher. Unfortunately it will also have less torque and less braking action together with more current draw. So if a motor is too far advanced it will not have the power to pull its maximum possible revs on the track, and the running time will be dramatically reduced.

As mentioned earlier, most 05's are slightly re-timed, just enough in fact to make certain that the motor runs faster in the correct (i.e. anti-clockwise) directions, which is about ideal with 35 turns of wire. The timing is controlled by the position of the brushes on the commutator, as this is at present in the factory, we cannot alter this. What we can do, however, is to make certain that we take full advantage of this small amount of timing advance, which, incidentally, does vary a little from one motor to another.

Let's think about that for a moment.

The power is transmitted to the motor via the brushes which sit under spring tension on the round commutator. When

a motor is new, the brushes are almost square! So they can only make contact over a very small area usually somewhere around their centre. Now the brushes are about 3/16" in length, and as they bed down and eventually make full contact with the commutator the position at which power is passed to the commutator alters. As I mentioned earlier this is exactly what we need to change the timing. If we very carefully run a motor in, until the brushes are bedded down on the commutator, we then achieve the correct timing as intended by the manufacturer. The only way to do this is to run the motor for at least two hours under no load. One thing we don't want to do is damage the commutator. If we load the motor with a prop for example, the current it draws when it starts up is extremely high (10 - 15 amps) and because, as already mentioned, the brush contact area when new is very small, asking the brushes to pass high current in this condition is almost certain to scorch the commutator.



Internal view of Astro 05.

Brushes can be clearly seen embedded around commutator. This motor has obviously been run a lot & brushes have bedded down nicely.

The other thing to watch out for when running in, is that the motor does not get too hot. Ideally, for the first hour, only run the motor in bursts of about 5 minutes with a cooling down period in between. A very small drop of machine oil on either bearing helps to reduce friction which in turn causes less heat build up.

The revs of a properly run in motor may not be considerably different from a brand new one, the main difference is the brushes will be properly bedded down to achieve the correct timing and allow the passage of very high currents which is exactly what we want for good acceleration.

The performance of any motor is also dramatically affected by the magnets.

The golden rule is - the stronger the magnets, the better (i.e. more efficient) the motor will be. However, a motor with strong magnets under load, will not rev anywhere near as high as one with weak magnets. DO NOT BE PUT OFF BY THIS.

The motor with the stronger magnets will have a lot more torque, it will, therefore, 'pull' more of its revs on the track when compared with a weaker magnetted version. All you do is alter the gear ratio to suit. Another bonus of strong magnets is better braking.

Talking of gear ratios, **EVERY MOTOR WILL HAVE AN IDEAL GEAR RATIO**, until you find it, you have no chance of using the motor's full potential.

So how do we achieve our objective of getting a good standard motor? To save you reading it again, let's summarise:-

1. GOOD MAGNETS

2. GOOD BRUSH CONTACT - this can be determined in your model shop simply by turning the motor over, because providing the bearings are fairly free, any resistance you feel, apart from the magnets, is caused by the pressure of the brushes on the commutator.

3. RUN IT IN to fully bed down the brushes. A good guide is to run it until the brushes stop squeaking when turned over by hand slowly. This can take anything from 2-5 hours, depending on the brush pressure.

4. EXPERIMENT WITH GEAR RATIOS

The average 05 will perform best on somewhere between 3.4 and 3.9 to one, using 2 & 1/8" diameter tyres.

Don't forget - every motor has its ideal gear ratio.

5. LOOK AFTER YOUR BATTERIES more on this another time.

Enjoy your racing

Dennis Trowbridge.

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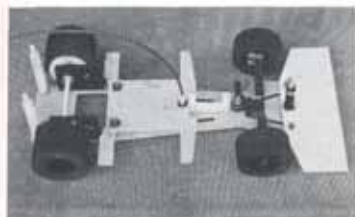
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Hey Bob! Could yer have a quick look at me car?



Bob Errington

By Bob Errington

into the tanks. The best positions are, therefore, directly on top of the silencer or, my preference, just below the baffle plate.

The front steering set-up is of vital importance to the stability of the car, and so great care should be taken here. A degree of 'bow' in the front beam is not important, but do check that the mounting bolts are not bent after the usual couple of pile-ups. The axle blocks must be free to rotate and, in my experience, a small amount of slop in the king pins/bushes is advantageous. The ball joints also do not want to be tight, and the practice of wrapping wire around them does more harm than good. The length of each track rod/ball joint configuration should be identical also. A slight amount of play in the servo to servo saver tie-bar is also nice, if only to prevent partial seizure at the extremes of travel, in fact the whole steering set-up on my car is "floppy" and this, together with the correct amount of toe in, enables the car to travel in a consistent "hands off" straight line once the trim on the transmitter has been set. Toe in is important but don't overdo it. For Sports, I find a bare minimal of toe in, just right, but don't forget to allow for the play in the steering, i.e. ensure that you have toe-in when the wheels are outward in their driven position. However, for Formula, or indeed saloon racing, it is better to add a turn to each track rod, thus increasing the toe in.

Fuel tanks can very much be a question of personal choice, but whatever type you have, do ensure that the top is sealed, even under light air pressure from within. Optimum mounting position is when the fuel level in a half full tank is at the same height as the jet in the carburettor, thus reducing the tendency to flood on a full tank and running lean before the tank is empty. The alternative is to use a 'Chicken Hopper' tank which gives a constant pressure on the fuel supplied independent of the amount within the tank.

BOB ERRINGTON.

Next issue, I will talk about clutches, gear ratios, engines, bodies and wings.

The cry I've heard several times this year and which has now prompted me to write a few words on how I set my car up.

The prime objective of the exercise is to ensure that the car runs smoothly, accurately and above all consistently. To many of you the following will sound like the proverbial 'old hat', but the number of cars that one sees zig zagging down the straight or that can't tick over on the line, seems to indicate that something is still missing.

Although based on the PB9, this equally applies to other manufacturers models.

The first thing to ensure, is that both the power pod and chassis are perfectly flat, any unevenness here can, and will, cause all sorts of handling problems.

Next, ensure that the rear axle bearings are a comfortable fit inside the plumber-blocks and that the complete axle assembly is totally free to spin, with minimum friction losses.

As regards the braking system, I personally, do not like a drag brake and so set the adjustment such that there has to be slight movement of the servo before pressure is even applied to the disc.

This is best checked with the radio switched on and in the neutral position, with the rear wheels off the ground. At the other extreme, don't have so much spring pressure that the wheels lock up under heavy braking as this will cause 'spin-outs'. This requirement, however, does vary from circuit to circuit, dependant upon the amount of 'traction' available, and so, therefore, is an adjustment that must be carried out trackside.

The position of the pressure nipple on the exhaust pipe, although not critical, can have an adverse effect if mounted on the manifold or inlet pipe, or indeed, if positioned on the silencer such that residue oil can find its way along the pipe

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I have no doubt that this event will be up to the very high standards achieved in the past two Winter Nationals at Exeter ably organized by the East Devon R/C club. More information about the 2 days and whats happening in the next (Jan) issue.

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There will be more information regarding this Porche championship series in later issues.

PLEASE! PLEASE! Let us have details and dates of events in good time so that we can publish them well in advance.

Next issue (Jan) we will include ALL the race dates available.

IN ISSUE NO 2



Next issue (Jan) we test the new

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Chesterfield Electric Stock Car Club

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Chesterfield Electric Stock Car Club

Venue :- Parish Church Hall,
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Derbyshire.

Meetings :- Every Tuesday Evening
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Track :- Approx. 30 yards
wooden floor.

Secretary :- Ron Hammock - Tel:-
Chesterfield 73190

The Chesterfield Electric Stock Car Club (C.H.E.S.T.) was formed as a break-away from a local car club earlier this year. It was obvious that conventional cars and stock cars, just do not mix in the social sense.

Started by a bunch of real stock car (B.R.I.S.C.A.) enthusiasts, the Club has already had to move to larger premises and is once again looking for a building that can provide even more space for a membership approaching 30 very keen members, with more expected.

Regular meetings on Tuesday evenings at Bolsover, Nr. Chesterfield have already resulted in visits from clubs in the Leicester/Coventry area with return complimentary visits and more planned.

A B.R.I.S.C.A. style grading system is operated, from Super Stars down to 'C' Grade white top novices, all competing for weekly finals, a monthly handicap cup, a quarterley Super Star Trophy and an annual Club Points Champion.

It has already been proved by the big boys that a tough competitive atmosphere is the secret answer to success. An originally implemented handicap system, designed to sort out the top drivers, and launch the grading scheme, has been so well accepted that it has been decided to keep it going. The old saying "it is tough at the top" becomes a reality, with 8 laps added to a white tops race results, 6 laps to a yellow top, 4 laps to a blue top, 2 laps to a red top, and none to a Super Star. The system is not always readily acceptable to visiting drivers, but has resulted in finals being won by all grades of drivers and not just one group, thereby keeping a collective interest in the Clubs competitions.



Affiliated to the National Radio Stock Car Association, C.H.E.S.T. is preparing itself for, hopefully, national open competitions next year and who knows, maybe a national grading scheme. However, it is expected that 'going national' will probably require meetings on a Sunday, which is proving a problem. There are not many buildings large enough or bookable on a Sunday and indoor venues are a must for electrics.

An outdoor meeting has been held this year for charity and proved to be a great success, but the English weather will surely be the winner in the long run.

Anyone in the Chesterfield area with facilities for stocks, please contact the Secretary and the same goes for new members who are always made welcome with ample opportunities for chats and advice from the 'older' members.

The Club is already in the process of producing a lap counter, with the design completed and the first modules produced, of a manually operated, electronic digital counter, bought and paid for out of club funds.

The track itself is a wooden floor, of approximately 30 yards, the outside of the track rimmed with wooden boarding to protect the walls as well as the cars. The inside has been a problem, with differing types of centre being tried with varying degrees of success. The current method is old fire hose filled with sand and supported by car tyres, but a new middle of wood is being produced, which should prove even more successful.

When the Club was first started, most of the drivers being ex. 1/12th scale car men, used silicone on their tyres and some of the drivers still use tyre preparations,

but the majority have realised, that on this surface it is not necessary and a lot cheaper without. Arguments will go on for ever regarding the use of silicone, but just think of the full size stock car drivers' reaction to being stopped from experimenting with tyres!

The Club has decided, therefore, that providing drivers stick to R.S.C.A. rules regarding tyre sizes, no further restrictions would be introduced.

A proposal has been accepted for a "Concours Trophy" to be competed for, on a monthly basis, and hopefully presented by a B.R.I.S.C.A. driver.

So any budding artists in the locality who fancy their chances, should make application to join the Club as soon as possible. There are vacancies at the moment, but it cannot be too far off before a waiting list will need to be introduced on the grounds of insufficient room for pit areas.



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SAMPLE SLOT RACING ITEMS

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| Parma RTN, Iser, Searge | ES 25 | Mura MG LP 20 | ES 20 | 10 Types of magnets in | ES 15 |
| Lyons, IBD motor, Lexus | ES 25 | Champion LP 20 | ES 20 | stock | |
| basic motor chassis | ES 25 | Johnson 150 | ES 15 | | |
| MRRC, M. Speed car | ES 25 | FAAS spurs all sizes | ES 20 | | |
| rollers 2", 3", 10, 15 | ES 20 | FAAS pins, all sizes | ES 15 | | |
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