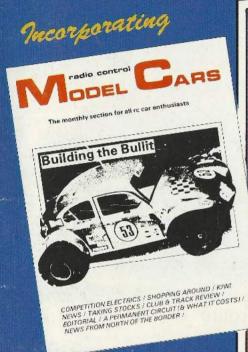
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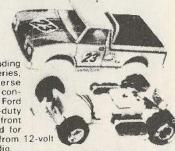
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# Editorial

## **Problems of Success**

The number of entries that a Race Director can handle in a day is strictly controlled by time. With a 9.0.a.m. start and no hold-ups from interference, weather change etc, 120 can be processed before dark during most of the open air racing season. Some R.D.s limit total to a mere 96. Meetings are now being regularly oversubscribed to the extent of 20 or 30 returned forms and consequent disappointment of would-be drivers. In the 1/12th scale Calendar this is compounded to as many as 50% of entry over subscribed

— so that means over 100 disappointed drivers

What can be done?

Taking a leaf from fullsize RAC regulations, I believe that, before a driver enteres National events he must have proved his skill at a lower club or area level, progressing stage by stage as his showing improves. Is this a feasible scheme? So many club events entered, then regionally, and at last to Open Meetings. In 1/8th scale the Handicap system and seeding of heats ensures that fairly equal heat racing ensues. In 1/12th events a fair degree of skill plus a really good car, plus a good slice of a lucky break at the start often produces an unknown in the last eight where the really top notch drivers show him the way home.

A number of 1/12th Open meetings are run on the understanding that one-third of the places are reserved for home club entries which reduces the 'open' aspect to a mere 80 places. There is also the curious side effect that most of these 40 home drivers only run at their home Open but appear as a further host of handicap drivers, but never again until next year's Open. This has played havoc with 1/12th scale handicapping and Jeff Lindstrom the Handicapper is tearing his beard.

If home drivers were barred from their own Opens and acted as genial hosts and organisers this would improve, if not cure, the situation. But, with all open meetings counting for points in an on-going National Championship, entries are bound to be high

Other aspects that invite concern are the natural desire of Race Directors to attract the top people so that entries are seeded and some people never, but never, get an entry accepted. Then team entries tend to get preference, with sponsored and trade teams getting even more preference. . . are we reaching a kind of 'Animal Farm' situation? Views and, even better, solutions welcomed.

## The EFRA Scene

The Italian Grand Prix took place on May 2nd and 3rd with Veronesi winning both Formula and Sports/GT events driving the SG Monaco car — still rigid suspension! The British SG team comprising the two Williams Brothers and the Wheldon Brothers plus Mick Newman were there and the solitary Paul Pagdin for PB. Mick Newman came

Dave Preston and Phil Booth at the 1979
World Championships in Geneva. Phil won.

9th on the Sunday with Paul 10th. Not bad going in essentially SG country. Paul also took an Alpha car over for Guilio Ghersi who will be driving for PB. Franco Sabattini not exactly delighted... Keith is. On test (not at the Grand Prix!) after spending 1½ hours setting up his new car Guilio broke the then track lap record of 16.8 secs with a new 15.3 secs!

In Holland the Dutch G.P. on 9/10th May fell to Pieter Bervoets for the Formula and Ronnie Ton for Sports/GT—Serpents of course. Pieter was running their new suspension car but Ronnie had the solid Serpent Mk 111 Super Pro. British presence: two Associated Team (GB) drivers in final and two PB team. Gary Culver for AMPS going like a bomb until his engine cut.

Team Associated made a very good impression with all four members making one semi final, Dave getting 3rd FTD in Formula and finishing 2nd behind Peter Bervoets in the Formula event. There is already a strong following for Associated in Europe and great interest was expressed for the new car.

Which all goes to show there is still a lot of competition in the top ranks and no one should go out and buy a sure fire winner — there just isn't one yet.



## **Elite Models**

Customers will be noting a change of title where Elite Models takes the place of Jim Davis Models, 145 Newgate Lane Mansfield. It is indeed a change and we would welcome to the model shop scene no less a figure than World Champion Phil Booth who is a partner in this new model company. With him is Dave Preston, who must certainly have inspired the shop name of Elite Models from his earlier association with a

somewhat larger racing car of that name. Finally to complete the partnership there is Walt Bailey who has been shop manager at this address and will continue so to function.

In general, shop aspects will continue as before with special emphasis on Dave and Phil's own special accessories and all things connected with Associated, the American company run by Gene Husting, who as previously reported is manufacturing the Preston/Booth/Associated suspension car, to be hopefully on the market before the year is out. Whilst Dave, Phil and Walt plus Debbie will be racing as Team Associated in the U.K. and Europe running the new suspension cars, it should be noted that they have formed another new company Team Associated Ltd. to distribute Associated 1/8th and 1/12th kits and accessories.

Nor is that all. Yet another company OPS Distributors Ltd of 512 Berridge Road West, Hyson Green, Nottingham (Tel: 785387) will be handling the complete range of OPS engines as U.K. distributors. These include not only the very successful r/c car 3½cc engine but the whole lot of sizes for model aircraft and boats ranging down from Speed 65 and watercooled Ursus 60 to the 3½cc car plus the OPS glowplug range and some useful engine tools.

All Editorial Enquiries, Publicity Material and Review samples should be addressed to:

Dickie Dickson, Editor, RC Model Cars P.O. Box 30, Hemel Hempstead, Herts, HP1 1NL.

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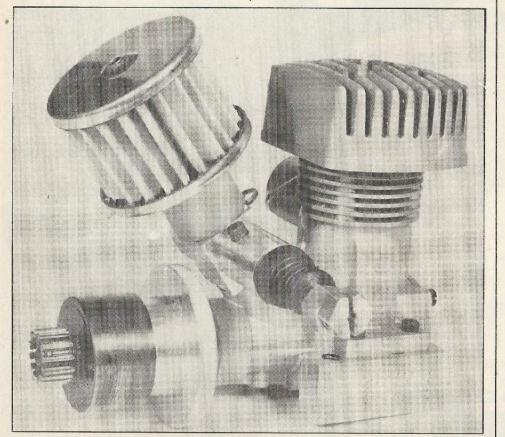
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Lexan 1/12 Bodies. Latest MRP Prophet. Busch Hogan, Frisbee, Penske F.1. Lotus Esprit, Renault Le Mans, Toj BMW Dome, £5.90 clear, £7.90 painted.

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# Club & Track Review

#### Start of the Porsche Series

FIRST LEG OF THE FOUR-PART PORSCHE SERIES of meetings took place at Lilford in May in not very exciting weather conditions, though brighter for the actual Porsche Sports/GT event.

The local distributors had provided a fine display of their fullsize offerings and a pleasant office with flags adorning it.

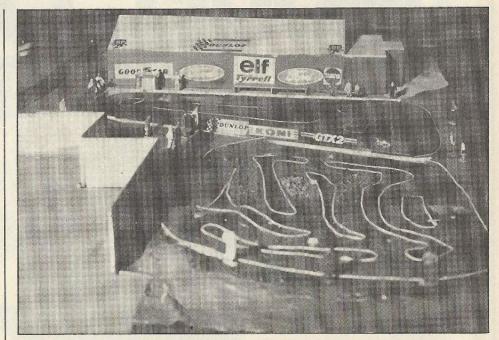
Dave Martin took the Saloon event on the Saturday driving his Rapier for the AMPS team. Debbie Preston of Team Associated with the Associated suspension car won Sunday's Formula event.

On May Day Monday the big event took place with an all-suspension final. Result:

- 1. Bob Errington PB Alpha 2. Steve White PB Alpha
- 3. Phil Greeno PB Alpha
- 4. Dave Martin AMPS Rapier
- 5. Phil Booth Associated Booth/Preston
- 6. John Milne AMPS Rapier
- 7. Debbie Preston Associated Booth/Preston

8. Keith Plested PB Alpha

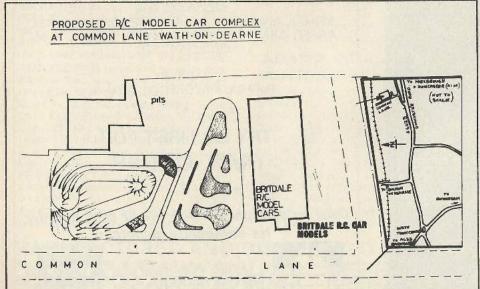
The Concours which was confined to Porsche bodied cars and is on-going for the series was judged by Porsche representatives who rightly know most about these things with markings (out of 10) thus: 9 marks to Peter Gatehouse (Type 917) to the entire Team Associated of Phil Booth, Dave Preston, Debbie Preston and Walt Bailey (also 917s) 8 marks to Mick Shaw (917) and Bob Williams (Type 936).



Design model of circuit/track and Britdale R/C Car factory in rear.

## South Yorkshire Outdoor Racing Club

Race Secretary: Phil Maxfield 40 The Brow, Brecks, Rotherham S. Yorks S65 3HP Club Secretary: Trevor Kersey 40 Packman Road West Melton, Wath-on-Dearne Rotherham S. Yorks



New 1/12th purpose built circuit and off road track — joint club and trade effort in South Yorkshire.

Phil Maxfield introduces us to the Wath R/C Car Complex, the first of its kind in Britain, as follows: "When Harold Carter of Britdale R/C Car Models approached Rotherham Electric Car Club in February 1981 with his proposals for building a purpose made r/c car complex it was a 'dream come true'. The club had already received permission in principle to build an off-road circuit on land owned by Rotherham Borough Council but Harold's plans were better still. A new club was formed called South Yorkshire Outdoor Racing Club and this club will administer the running of the complex. An area of about 1750 sq. yds is available and comprises two independent circuits - an off-road layout and an outdoor racing track. They were both designed (with a little help from Tamiya) to be variable in length and to have a common pit area, with separate drivers' rostrums and race control units. Racing takes place at weekends on both tracks"

Track details: Outdoor and Off-road each up to 300ft long. Racing circuit surfaced with hot rolled fine asphalt, 10ft wide outer perimeter, 8ft inner. Twenty variations possible in layout. Off-road surface varies: sand, gravel, shale, earth, water splash. Width at widest 10ft, narrowest 6ft. Adverse camber bend, raised section, tarmac section. Both circuits intended for 1/10th and 1/12th scale cars. As such this must be the first British complex catering and purpose built for the

smaller scale. The off-road circuit will also be available for i.c. vehicles when there is demand for a national meeting.

This whole scheme is a wonderful example of what can be done when an enterprising firm gets together with an enterprising club. Harold Carter and his company Britdale R/C Car Models are to be heartily congratulated. Final comment the club membership fees are £4.00 p.a. seniors, £2.00 p.a. juniors and Family membership (max of four) £8.00. Want to know more? Then 'phone Harold Carter (0709 873449)

#### Southampton Model Car Club

Another purpose-built track project is coming to fruition! This is the prestigious Southampton M.C.C. Circuit occupying an area of some 90 yards by 40 yards at Weston, right on the front looking across to the Ocean Terminal and Docks. All the necessary paper work has been done, all the appropriate building licenses obtained, and enough money in the kitty to make a start plus sums promised. By the time this appears loads of gravel, concrete, sand, spades and wheelbarrows will have arrived on the site, and maybe the majority of the ground work already completed.

I understand the club does not intend to rush in with early meetings but will proceed slowly, ensuring that all the ancilliary items are there and in working order before the Grand Opening. Club secretary Dave Farndale is very actively concerned with progress and can be contacted at Eastleigh 617849 during the day or 38229 evenings.

Like nearly all such brave enterprises be sure there is a benefactor or fairy godmother somewhere in the background. As my article in this issue on the subject indicates it needs a formidable sum of money to produce a circuit!

## **Sponsored Drivers**

Bob Errington has sent me a list of 'Works' or 'Works Assisted' drivers who will therefore be classified as 'Sponsored'. This is an 1/8 scale i.c. list; no doubt a similar list will be forthcoming for 1!12th drivrers should this be appropriate. Here they are, with no surprises: Walt Bailey Phil Booth Gary Culver John Darrington Robin Ellis **Bob Errington** Phil Greeno Paul Leach Ted Longshaw Dave Martin Fred Martin John Milne Mick Newman Paul Pagdin Marley Parrant Keith Plested Mark Plested Dave Preston Debbie Preston John Robinson Andy Stafford Len Wheldon Les Wheldon Crhis White Steve White John Williams

## Frome & District R/C Car Club

Secretary: A. J. Court Pepys Cottage Little London Oakhill Nr BATH Somerset (Tel: 0749 840584)

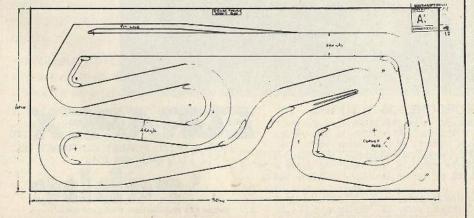
Martin Williams

The secretary writes to advise of his appointment and gives some information on this thriving 1/12th electric club. Membership is 30 plus expanding steadily. Task at the moment is to find a suitable size hall to make their regular venue. During the summer months the club has run an outdoor championship on the local sports centre's tennis courts which always produces close racing as traction is so good that the tyres are less important. At the moment members are looking forward keenly to the Southern League inter-club championship.

## Yorkshire R/C M.C.R.C.

As ever the faithful Jeff Lindstrom

Plan of the new Southampton MCC circuit located so splendidly on the front at Weston, Sothampton.



et Cur

Deven Cornel Hade



## Badge of the month

With the Porsche Series of events taking place through the season, I thought no more suitable badge could be chosen than the one which lucky Porsche owners sport on their bonnets. This is also featured I note on the Porsche flags which fly above their demonstration display as seen for the first time at the opening meeting at Lilford Park.

has sent along the club Newsletter, giving a brief note of the Mintex 81 meeting, the club's first three day event of the outdoor season. The event went through without a hitch, the BRCA Meeting Referee Eric White established a new precedent in driving standards which should greatly improve the quality and presentation of race meetings both for competitions and the viewing public alike. Track record was smashed twice and now stands at 24 laps in 305.2 seconds!

Dennis Louth as Race Director excelled himself in the co-operation he obtained from the local council to the extent of a super new pit and camping area. The club are running Buggy events every other Saturday at the Littlemoor Park Circuit and there is a prospect of a club championship for Buggies.

## Brstol Off-Road Model Car Club (B.O.M.C)

Secretary: Robin Perkins 32 St Edyths Road Sea Mills Bristol Avon BS9 2ES (Tel: 0272 683414)

Here's a new sort of club! Welcome to the first exclusively off-road racing club! This is for all electric off-road cars, primarily Tamiya buggies and jeeps. It has been in the process of formation since Christmas and now has a 15 strong membership steadily increasing.

At present a perfect racing site is still being sought, but events take place fortnightly at St. George's Park, Bristol. There is a meeting shield held by the race winner on each occasion and passed on at the next meeting, plus a wooden spoon for the outstanding, spectacular incident (somersaults etc). No club badge as yet for our regular picture, but one coming along — only a sight of the club membership card.

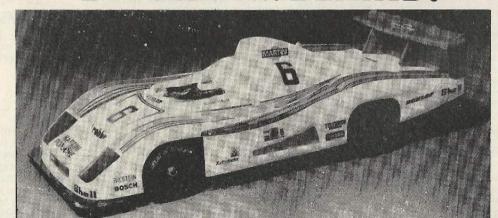
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A four wheel drive conversion set is available (order No. 3447) complete with twin differentials. Prices for the robbe Sonic Sports Porsche 936-78 start from £44.25





## NORTH OF THE BORDER

1/12th SCALE ELECTRIC

From Scottish Correspondent Peter Walker 84 Forrest Walk, Uphall, West Lothian. **EH52 5PW** Telephone — Broxburn (0506) 853703

FIRSTLY, I HAVE AN APOLOGY TO MAKE!! I forgot to mention that, at the Scottish Grand Prix, we had a lady competitor who successfully cleared all hurdles into the Final, Janice Robertson (wife of John, current National champion) is the lady in question, and to the best of my recollection it is the first time one of the 'fairer sex' has managed to get through to a final of a

major Scottish competition for 1/12th scale racing. Well done, Janice, and I hope we are now friends again!!

A date to put down in your diaries is Sunday, 4th October, 1981, when the Forth Valley club are again staging the Scottish National Championships at Bo'ness Recreation Centre.

Racing will be under B.R.C.A. rules, and, although known Clubs in Scotland will receive entry forms in due course, anyone individually wanting an entry form should write to the Club Secretary. Dave Small, 75 Barons Hill Avenue, Linlithgow, West Lothian, enclosing a fairly large S.A.E.

Although final details have yet to be

ironed out, the likelihood is that it will be 7 minute racing, with separate competitions for Senior and Junior, together with a Team Competition. There may well have to be a limit on the number of entries; and we (I say "we" because myself, along with Martin Wallbank, Dave Small, Gordon Price and Bill Watson are the organizers of the event) hope that it will be as successful as last year's inaugural Nationals.

Nice to see Martin Wallbank coming back to actual racing. He 'gave up' at one time, and became the 'circuit' scrutineer at major competitions, but the smell of over-charged ni-cads has drawn him back into competition itself!!

At the Forth Valley Club, the current series of the Can-Am Trophy was won by Gordon Price, fending off John Robertson and Bill Watson into minor

placings; whilst the monthly Price Bowl, awarded to the most consistent driver of the month, has been won now for two months running by Bill Watson.

Seems that the 'front wheel' drive phenonemon is rather drying-up. The Graupner front-wheel drive car became. at one time, very successful indeed and was used quite a lot, but one doesn't see so much of it now-a-days. Virtually everybody is now racing either the Gemini or the Associated, with the Jomac 2000 Lightning becoming more in evidence — although a large number are racing 'variants' of these where a lot of individual 'home-brew' alterations to the box-standard can be seen. Also, some are experimenting with various forms of 'four wheel drive', effectively using the rear wheels as the main driving force, but with some form of relaying some power to the front as well. However, this is obviously still very much in the experimental stage, but could have some possibilities in the

Otherwise, things seem to be fairly quiet from the competition side at the moment, no doubt due to the forthcoming summer (I use the word loosely!). All I can add is that I would much appreciate help from other Clubs, in the way of reports of general interest, in order that this feature can truly report on the Scottish scene over all, and not become rather orientated towards what I know myself - so please send me details or reports on your Club for inclusion in future articles.

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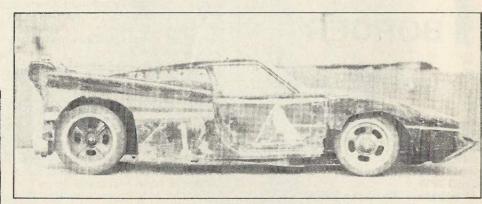
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# Dave KIWI Williams NEWS...

## **National Organisation**

There is much discussion here as to whether or not some of the clubs want to affiliate with the New Zealand National Body. The matter is problematical since so many of the total New Zealand racing population for electrics is located in Gisborne, whilst the bulk of the 1/8th i.c. racers are in other parts of the country. It seems incredible that with a three million population and a small number of r/c racers that such regional differences

The current national championship here follows the pattern of each club running its own championship series to determine champions for the club. Champions from each club then meet at a common venue to decide the champion of champions. The series selects an outright champion, a Handicap Champion and a Junior Champion. A junior is anyone still at school and not racing works sponsored cars. Lack of money is the main factor holding back juniors winning championships they have plenty of driving ability. Handicap system is the same as BRCA. Points are awarded 9,6,4,3,2,1 as in fullsize GP racing. In Gisborne we run two half season rounds with best four scores in each half to count, again as in full size racing.



NZ Champion car - side view

#### Race Times — Procedure

In Gisborne we have always raced heats of 5 mins long and now and then an 8 min. heat race, with four races per driver every Sunday. Other clubs meet monthly in most places, so we have more racing than other parts of the country. Maximum stop between races is 10 minutes to charge and prepare so pit work is of some importance. We are shortly trying a new idea with two 50 min. races with charging stops and pit work being of vital importance. It effectively combines four 5 min, races with three 10 min. breaks, but avoids any bickering over a driver wanting more time to fix this or that. The only pre-conditions are that, if you are fast charging, you can only have a single cell-PACK: and only a maximum of four if you are using ready charged

cell-packs. The RS-380S motor gets 20 mins, per 6v. cell pack while the faster RS540s get 5-10 minutes so it will be interesting to see if this method means the smaller motors with fewer pit stops can beat the faster guys.

Lyle Alfa Romeo Type 179

Ferraris!

ozs).

Car Details

received and passed to Nick Adams for evaluation Ed.) By the way, anyone

find they have a Mabuchi with 27 turns!

racing a Tamiya RS540 standard will

Some are faster than the Parma

One or two pictures may be of

as sharp as might be wished Ed.)

front steering. New nylon wheels

accelerative pitch torque and true

an Associated. Lock is excellent for

narrow 3 - 4ft wide tracks (A bit

interest (alas from colour negs and not

Picture (1) is of 1980 NZ Champion car.

Speed controller from Combat car (JRM

Japanese kit that is really competitive. It has sprung motor mount to take up

Ackerman geometry. It has lowest roll

rates of any kit car and corners very well

though top speed is not as good as, say,

narrower than UK narrow tracks?) Note

clustering of sprung mass at cg for low

polar moment of inertia. Powered by a

through 5mm silver steel axle and spur

Parma Lotus 47D Europa. Gross vehicle

weight is a heavy 1500 gms (nearly 53

Picture (2) shows same car in profile.

factory tuned Igarashi 05-37 driving

gear type diff. cluster. Tyre width to standard JMRCA sizes. Ball bearing

rear, brass bushes front. Body of a

Note body condition. Cars race 5-6

bumpers too high off ground and

miles each week, through whole year

outdoors, even in rain. Bumper angled

which is allowed to stop drivers placing

type like Tamiya). This car is the only

It is an Otaki kit car with ball jointed

replace the more fragile Otaki ones.

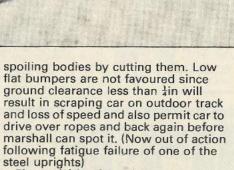
Future programme includes a sponsored race by Datsun(Nissan) for sports cars and another sponsored by Reidrubber (a local tyre maker) for an Indy race. The sports car event will be for maximum laps in one hour on an outdoor road course. The Indy race will be on an outdoor rectangular oval and first to do 100 laps. Indy is unlimited (modified) and should produce some fast machines. Poor transport inside this small country is likely to stop many teams coming, but interest will grow for the future. Crowd of 150-200 expected as at last special meeting here.

#### The Cars in General

The Combat cars are now using as standard some new bearings which are

The Works Combat cars are proving more drivable than the Associated/Lightning type of cars (specials using parts from these cars) though acceleration of the lighter US designs is markedly better than the local cars. The extra stability and cornering power of the Otaki and Combat cars in Gisborne gives them the edge, but the Associateds are still the most popular all round the land. Hollow tyres are not banned but are still deemed unfair at present. (Hollow sponge not the Tamiya hards).

lighter and freer in lower rolling resistance than those on others cars we use. They are available for various diameter in both metric and imperial sizes. They add some 11% in output at the wheels. Trade supples are available and we can quote prices. (Samples



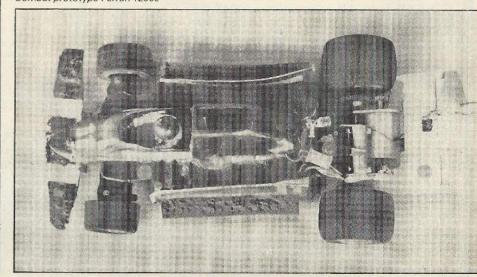
Picture (3) is of Combat prototype Ferrari 126. Very bashed and badly deformed after much running and repairs. Rubber pads added to side protect against impact as experiment, since dropped and replaced by thin

of latest 126C prototype coming shortly so do not take this as a production car!

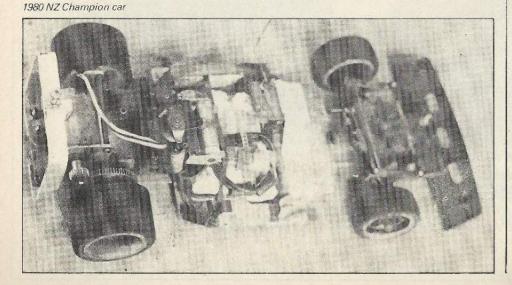
Picture (4) Conventional 1/12th F/1 car from the design stable of Lyle, a NZ car designer. Model is of Alfa Romeo 179. Has chassis designed as sports car and hence wider than scale body, though not as wide as types such as Parma Ligier and so on. Points worth noting are wide 45mm width wheels at rear and 30mm at front (allowed here) Design is conventional single leaf spring and shaker plate with two 3-cell packs one each side of car centre. Schumacher

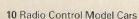
carbon fibre skirt plates. Proper photos

Combat prototype Ferrari 126cc



















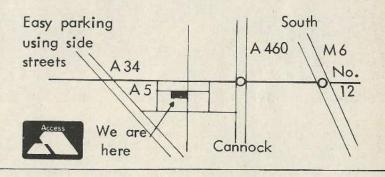
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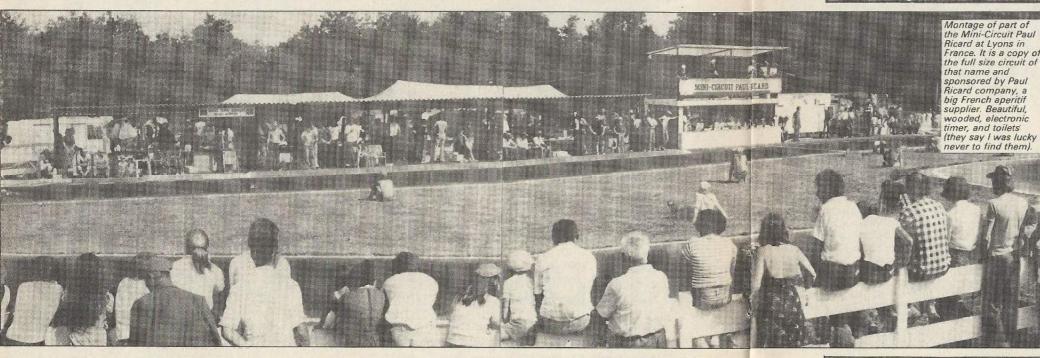
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# A PERMANENT CIRCUIT (& WHAT IT COSTS)



OW MANY PEOPLE THINK of what it all cost to produce when they settle down to a game of tennis, squash, badminton, even football? They quite probably grumble a bit at the fees, complain about the lighting or the court marking or the tepid showers . . . It's just the same with r/c circuits, very few drivers stop to think of the who, how much, and where from of the capital needed to provide a permanent purpose built circuit. This therefore is a short effort to spell out the background costs required to turn a piece of waste ground into an EFRA acceptable racing track. Figures given are not guesses but money actually spent, over the years, in getting, in this case the Mendip Model Racing Circuit up to standard.

Of course you may be lucky, as I said in an earlier article, in finding a noble Duke or other nice benefactor willing to provide a site free, or practically free. Or even find a stretch of tarmac already laid level and enclosed that can be yours for pin money. None of this naturally applies to 1/12th electrics where halls abound, but only to 1/8th scale racers needing the wide open

Stage one is to find the ground. It is likely to be away from houses where noise problems could arise but will lack such services as electricity water and main drainage. A friendly farmer may agree to rent you a suitable strip of land that is of little use to him for various reasons. Perhaps it is liable to flood or too rocky to support crops, or grass that even sheep will eat.

Next stage is to draw up plans and seek outline planning permission from the local authority. Normally such an application will cover a fairly wide

range of uses including of course permission for camping and caravans is space is large enough, since you expect to attract weekend visitors to your meetings. This may well go through — but, wait a moment — you have now increased the value of your rented land with a planning permit. If you wish to secure firm occupation it may be thought wise to try and buy the land but beware a calculating landowner who may gazumph the price if you leave it until you have actually completed the work.

But to return to the early days of Mendip. Here an overgrown rubbish dump was available but required nine month's work to get the ground ready for laying the surface. Some thousand tons of scalpings (top soil etc) and nearly 500 kerb stones had to be laid, mainly by hand. At this stage the partners in the project had put up some £6,000. Another £2,000 was required to carry the work to a stage one state of completion. Meanwhile offers of assistance in tarmacing the circuit had failed to materialise, which meant another financial load. Then one partner dropped out because of his business demands and another had to be found — which happily proved not too difficult to arrange.

The circuit got under way with a civic opening and the barest essentials for operation. There were no laid on facilities such as power and drains. The former had to be provided by generator and the latter by the usual camp elsans and trenches. A simple protective fence had been erected round the circuit and granite chippings laid on the car park area. A drivers' rostrum also permitted a timers' box to be located beneath it but this was in the simplest mode.

Then came the opportunity to stage the British Grand Prix which had not been held the previous season and a demand that circuit standards be brought up as nearly as possible to the exacting standards demanded by EFRA, the European governing body which gives sanctions to such events where numerous continental "aces" may be expected to travel considerable distances and expect a minimum standard of facilities. Further planning permission had to be sought to install a system of septic tank toilet facilities. considerable additions to the protective fencing in view of a larger spectator attendance, and a more extensive and robust drivers' rostrum/timekeepers' box. Permission granted, a further £5/6000 required to be spent in achieving these ends. Meanwhile it had become necessary to protect the investment by purchasing the site and another four figure sum changed

So what have we now for an expenditure of between £5/6,000 required to be spent in borrowed and demanding high interest payments. Hopefully, one of the best circuits in Europe, with a strong supporting club to promote meetings both local and at a national level. How is it all to be financed? This is a question that any club thinking of a similar project must ask. First of all board advertising round the track produces a certain amount of money from trade firms interested in the hobby, or local firms being helpful - just like on football grounds but at lower charges, alas. Then fees from the club drivers at so much a race, a share of entry fees from major events, programme sales, and hopefully sponsorships.

That really is the crux of the matter.
An income of some £4,000 a year is needed just to service the investment and get a little of the capital back.
Frightening you say? Of course it's frightening. But a modicum of trade sponsorship (which can be charged as a legitimate expense against tax! and so not really cost anything if sponsors are working to a profit) could set all financial worries aside. As it is John Keay and his new partner Roger Penny are shouldering the whole burden.

Wombwell club is

lucky to be part of the Wombwell Sports

Association and was

able to build on to ar

time as well as enjoy

financial help from

the Association.

existing Go-Kart

Similar situations exist all over Europe. In some cases generous and very rich firms or individuals have footed bills for ambitious circuits. I think of the Paul Ricard circuit near Lyons where the French liquor firm have been generous sponsors, of Spain where generous patrons have made splendid circuits for local enthusiasts, or in Austria where the EuroChamps will be held on the circuit pictured in a recent issue which had been largely the work and inspiration as well as the financial coverage of a single benefactor. So come on sponsors large or small - at least come along to the Grand Prix and see what r/c model car racing has to offer as a spectator sport as well as a participant hobby.

A regular sponsor is a good thing! Here a Team Event is taking place on the old Mendip rostrum/timekeepers' box under the patronage, as may be seen of Strongbow!... a good local brew.

Advertisement boards provide good revenue. Either like these on the boundary fences, or as strip boards on the track edges. There is no need for them to be related to model car racing.





# Nick COMPETITION ELECTRICS

## **The National** Championship

O THE CORE OF THE 1/12th competition racers, there is only one goal and that is to compete and win at National Championship events. These events are regularly attended by the same people and yet remain obscure to the main body of club racers. Certainly, to the general public, they remain virtually unheard of.

However, it is these events and the people involved in them which are pushing the development of the 1/12th electric car ever onward in the search of just that bit more performance and just that small edge over the competitor.

The result has been a rapid turnover of kits and latest bits and pieces, almost too fast to make producing a kit worthwhile.

Naturally, the Japanese take no notice and produce their own idea of competitive cars and luckily the majority of new club racers are unaware of the latest 'in thing'. The club racer will usually buy kits and add on bits that are probably years out of date.

However, returning to the National Competitions, these are sanctioned by a governing body called the British Radio Car Association (BRCA), who co-ordinate the calendar of events and make sure that all meetings are run to specified standards to ensure the highest standard of competition.

The BRCA also administers the construction rules governing the cars and makes sure that scrutineering at meetings enforces all of the rules. A BRCA steward is always present at meetings to deal with any problems and ensure all standards are met.

Although the Calendar of events is published in model magazines throughout the year, the only way to find out exact details and to obtain entry forms is to actually join the organisation.

The yearly fee is £5, which brings you a Handbook and regular newsletters detailing latest developments and meetings. There is also a conference and AGM which are worthwhile attending if you are interested in the rules and regulations.

I must add that the BRCA also deals equally with the 1/8th scale internal combustion models and you obtain the same details on meetings etc., as for 1/12th electrics.

The National Competition Calendar this year is the busiest we have seen so far and offers racing almost every weekend, especially if you do the off-road buggy racing as well. The meetings for 1/12th competition cars are divided into two types, these being for points scoring and for non-points scoring competitions.

This year, for the first time, a system is being tried whereby competitors score points at certain designated meetings, and, by the end of the year, the competitor with the highest score will be the National Champion.

This system replaces the more usual single National Championship event which was thought to be too much prone to elements of luck, Many mishaps can occur in the short 8-minute race, especially radio interference, and it is known that some venues suite some designs of cars thus giving them an edge, rather than allowing the drivers to compete on an equal footing. Therefore, it is thought that, by holding the Championship over several rounds these variations should equal out.

In fact, this year there are 13 points-scoring meetings and, to ease the burden on the competitors and allow as many as possible to compete, a maximum of only seven results need be counted.

There have been three rounds held at the time of writing, and the results are shown below. I must add that points are also scored by teams, these being the three drivers who drive cars with identical body shells, although the chassis etc., may be different, and their aggregate best times determine the team finishing positions.

The emphasis is on consistent driving and reliable cars and enables drivers who are not quite at the top to score good positions in the team results.

Returning to the National Championships, there are a number of meetings which are non-point scoring, including all modified class events.

There is still a strong anti-modified class feeling in this country, although it is the premiere class in every other country in the world. The reason is partly due to the cost of buying modified motors, but also due to the way the rules have evolved which only distinguish between the classes by motors, rather than including modified chassis' as they do in the USA

However, I can see a gradual acceptance of modified class racing, and a feeling that the standard class should also be for accepted available chassis and parts, thereby moving all modified and scratchbuilt parts into the modified class.

Until this year, the National meetings were run to rather more relaxed rules and scrutineering, which put the emphasis on having the quickest motor. espcially as race durations were only five or six minutes thus leaving spare capacity in the nicads to enable rather special standard motors to last the distance. The result was that not much effort was put into weight reduction. chassis development or special parts.

However, this year has seen a revolution of a kind with a great acceleration in innovation and a lot of hard development work to extract the very utmost performance from the limiting factor of the nicads. The reason for this is that all races are now of eight minutes duration and strict motor scrutineering is exercised at all meetings, including the mandatory strip-down of the top three competitors motors.

With the introduction also of a new lower weight limit of 1lb. 15ozs, to keep in line with the USA, many new cars have had to be completely purchased or scratch-built for this year's competitions.

Unfortunately, very few British kits are available which are suitable for National Competitions, although most kits are excellent for club racing and, in fact, the heavier cars can actually help beginners by providing a more stable and predictable handling.

The most successful British kit is the Phil Greeno Gemini, now available in a

'Super-Light' version. Others are also available, such as Alan Blahemans 'Alpha' car which has the potential but lacks a good run of wins for some unknown reason.

Many kits are available from the States and the newest Jomac Lightning 2000 has arrived at the right time, with the sophistication some racers were looking for. The Associated RC12E remains virtually unchanged from last year, but possesses all the qualities to remain competitive.

However, all these kit cars are based on conventional chassis and shaker plate designs without showing any real innovation. The result is that their

consolidated designs all perform to an apparent equal limit.

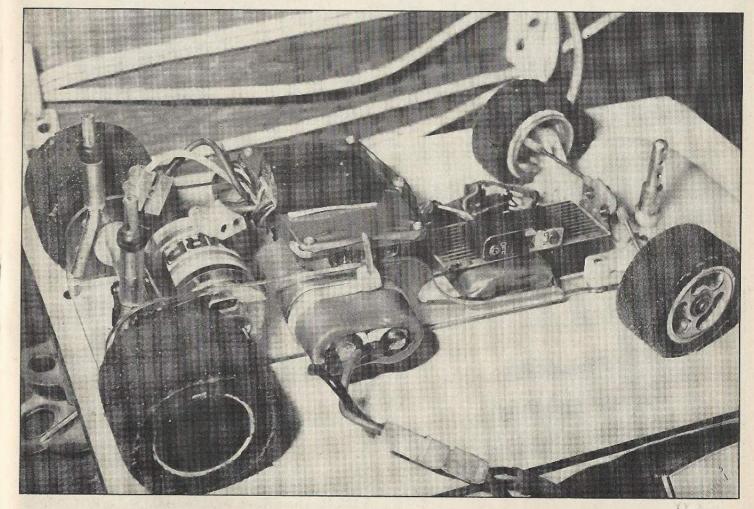
The real step forward has come from the scratch-builders who have recognised that there is a lot yet to come from the chassis. We can therefore thank, as far as I can determine, the team of Neal Francis, Bil Maisey and Tom Morgan, who have introduced the innovative Lexan monocogue car with the so-called torque tube motor mount.

The results of these innovations have been staggering and it is quite apparent to anyone who drives or watches one of these cars that they certainly have produced extra grip and handling, and

especially, speed through tight corners. The photograph shows one of the many duplicates which have rapidly come into existence, this particular version belonging to John Robson from

Stafford. You can see the design has minimised the weight at the same time as introducing the Lexan monocoque shape. Weight has been saved in all areas by discarding the cases of the receiver and Demon electronic speed control, and by using a front-mounted Futuba 30M servo with the latest American integral servo-saver.

The nicads are a loose fit in the chassis so as to allow the all-important



John Robson's Lexan monocoque with Torque tube rear axle/motor mount.



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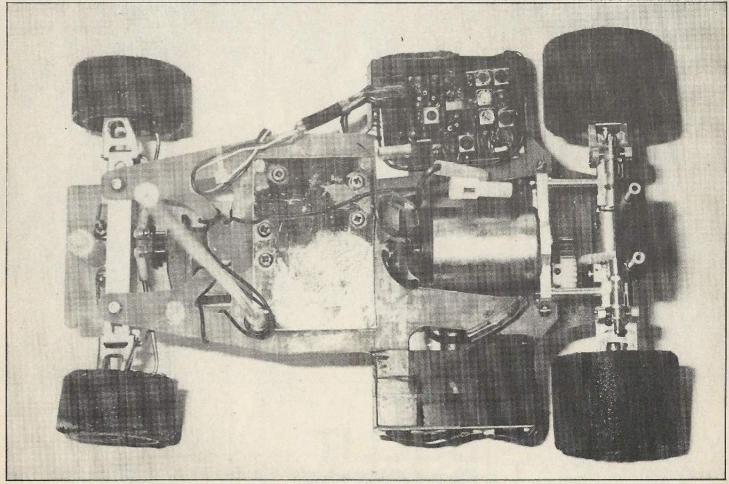
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# COMPETITION ELECTRICS (cont'd)



The all-independent car of Simon Clark.

differential longditudinal flex which is the secret of the chassis' success. The MRP 550 motor is suspended on the motor mount which is integral with the torque tube through which the rear axle runs. Although not visible, a small link to the chassis prevents the tube rotating and transmits the torque to the chassis. Sleeved tyres are used front and rear, allowing special light-weight wheels to be fitted and special hollow tyres to be fitted to the sleeves.

The other photograph shows a car design which could be one of the next generation. Constructed by Simon Clark, it is a fully independent design with adjustable geometry. Due to space limitation, an inline motor has been adopted, driving through bevel gears and centre differential. The rear end incorporates integral spring and shock absorbers, whilst the front has adjustable piano wire springing. The car weighs a surprising 2lbs 3ozs complete to run, and there is room for weight saving in the upper chassis and detail areas. The car has not been raced at National level, but the design exercise has shown that a fully independent car can be built within the

## NATIONAL CHAMPIONSHIP TABLE 1981

	(The position after the	ne completion of	three rounds)
Individual		No. of	
Position	Name	Points	Car
1	Neal Francis	18	Own Lexan Monocoque
2	Phil Greeno	13	Gemini SL Kit
3	Bill Maisey	11	Own Lexan Monocoque
4	Tony Wells	9	Associated RC12E
5	Fred Hatfield	7	Own Lexan Monocoque
6	Dave Tonge	4	Jomac Lightning 2000
7	John Glen	4	Own Lexan Monocoque
8	John Chamberlain		Gemini SL Kit
2 3 4 5 6 7 8	Les Pipe	3	Associated RC12E
10	Steve Davis	3 2	Associated RC12E
Team			
ream			
		No. of	
Position	Name	Points	Car
1	Team Amendment	27	Own Lexan Monocoque
2	Team Gemini	16	Gemini SL Kit
3	Radio Race Car	11	Associated RC12E
4	Ally Pally Demons	7	Jomac Lightning 2000
5	Petrha	5 4	Own Lexan Monocoque
2 3 4 5 6 7 8	Remnants Racing		Various Scratchbuilt
7	Ally Pally 'A'	3	Various Scratchbuilt
8	Howes Models	1	Jomac Lightning 2000
9	Beta	1	Associated RC12E

18 Radio Control Model Cars 19



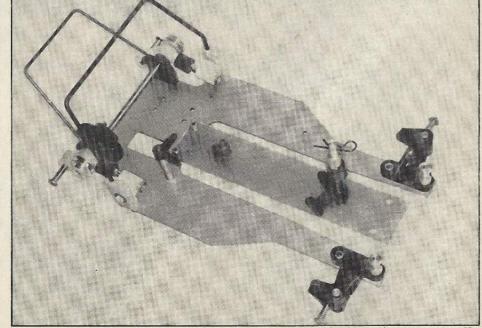
The buggy complete in typical surroundings.

'ES, IT REALLY IS SPELT LIKE THAT and comes from France but under the PB Racing Products banner as the PB14. French manufacturers have been offering buggy designs for several years - long enough, to coin a phrase, to get the bugs out of them. The Bullit is made by MRC (Model Racing Car) who are PB's distributors in France and features a number of PB parts in the kit, notably flip top fuel tank and flywheel and clutch/bellhousing parts.

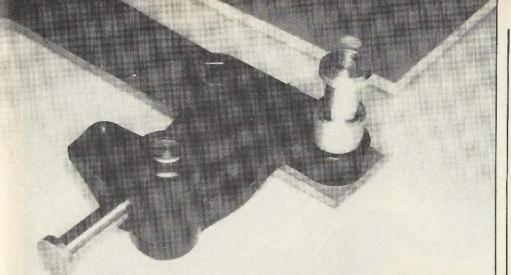
The kit comes with rear springing ready assembled on the alloy chassis. An unusual straight strip of GRP is anchored to the U-shaped chassis and carries the robust servosaver which, in turn, has the front body post on top, the two parts carried by a common screw. Separate front steering elements are fitted to the two ends of the chassis horseshoe.

Take special note of the excellent rear springing. It is fully enclosed, compact and does its job. You may be tempted to take it to pieces, but the springing is quite strong and there is really no need. It could be a nuisance putting it together again. At the same time, note that the plummer blocks to it as attached offer a choice of two other positions, raising or lowering the chassis accordingly. The blocks also carry the rollover bar which fits inside the body provided and acts as an additional support for the roof, as well

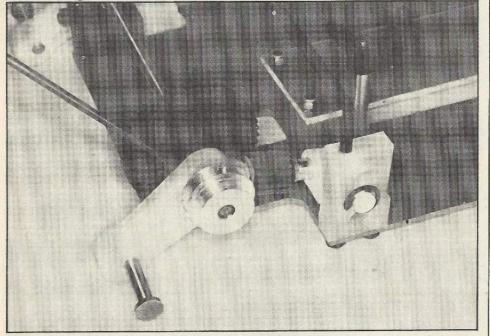
## BULLIT BUGGY ...



Unusual anodised alloy horseshoe shaped chassis with GRP central strip. Springing at rear end is already assembled for the builder.

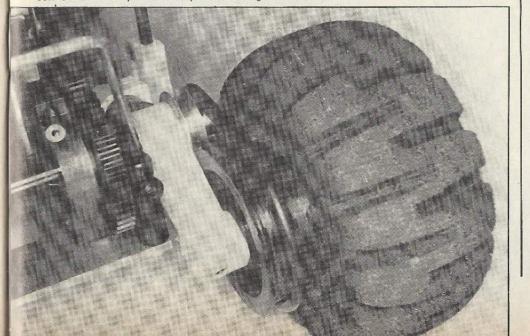


Kingpin, stub axle assembly. Post to right is intended for elastic bands between the two assemblies.



Rear end detail. Suspension unit has choice of three positions. Gear pulley provides two

Massive rear tyre which still leaves room on hub to take drive band provided. Brake is conventional compression strip balanced against throttle.





Clutch unit is pure PB. shoes must be cut and trimmed to take O-ring. Note also needle bearings.

as proving the location for the rear body attachment clip.

There are some other novelties about the chassis. The U-ends of the main part carry mini-posts across which rubber bands are stretched (the ones that postmen use are just the job for this use as many as you think desirable to stiffen this end). Finally, there is a little flat piece of plastic designed to form the front bumper. It is secured to the GRP strip with two nuts and bolts, but has to be curled up. I did this with the help of a candle flame to soften the material and initially bent it up too much - but when in place it was no trouble to unbend to suit, again with the handy candle.

Drive to the rear wheels is by belts, one on each wheel. The hubs are wider than the tyres and allow a suitable amount of room for the belts which a rim on the hubs holds in place. Two pulley diameters are offered to allow a speed variation. Four belts are included in the kit but only two at a time are required — the others are spares.

Rear tyres are really formidable solid deep treaded fellows, fronts are suitably ribbed. Pictures on the box lid are very attractive and I have followed their all-red colour scheme. Painting the hubs, which are black, to a bright red took time and patience: perhaps I would have done better to start with a coat of white!

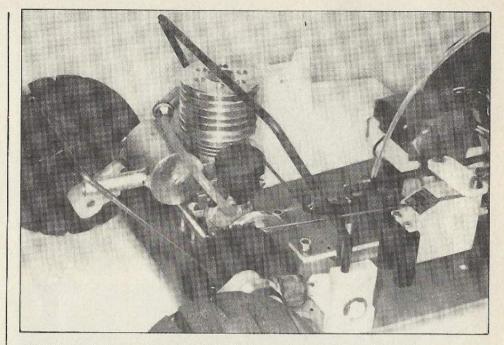
Just fit the engine and radio and away, as they say. It is not quite so carefree; there is enough work to be able to claim 'I made it myself!' Fuel tank screws in place with two plastic supports, grommets and self tapping screws. Steering tierods are provided ready bent to shape, but a better job will be made by bending one end up and one down, as, in fact, is shown in the picture on the box. A good supply of brass collets is included to fix these items with their usual allen screws. It is virtually essential with a buggy to use a little loctite on all such screws and all others where there is a possibility of them working loose.

My kit had the very minimal instructions (it is ARTR almost) in French, but this will be picked up in the general run of kits. Reduced size plan, not to an indicated scale, works out at about 5/7ths fullsize so multiply any

sizes by seven and divide by five. This is useful in deciding where to put the servos, since all linkages are to size and suitably bent and measurement helps in finding centre line of servo discs. Holes can then be drilled in chassis for the servo brackets to take whatever size of servo you intend to fit. Observant readers will note that I got it wrong first time and had to bore another couple of holes. The servo brackets are not ready drilled so it is time saving to decide on a common size for the attachment holes of all four of them and the resultant holes in the chassis. Servo fixing holes will be checked against servos to be used.

Steering servo goes flat and supports a little plastic open box to hold the receiver and battery. I fitted my servo so that its flat was just above level of brackets and fixed box with double sided servo tape. Purists may prefer to add a couple of mounting posts, there is just room each side of the servo and attach with screws. A nice little red ballon is provided to enclose Rx and battery which can be fixed in the box with a couple of rubber bands. An excellent aerial bracket is already fitted nearby and a plastic tube provided to carry up the aerial lead.

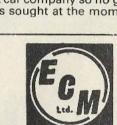
Designated engine is a Veco but I found my HB21 went in just as well, fitting the engine mounting holes and spacers exactly. Only a minimal amount needed to be ground off the crankshaft threads to enable everything clutchwise to fit snugly. A small Mardave air filter



HB engine with silencer, air and fuel filters in place. Flip top PB fuel tank completes the set up. Rx tray mounted on steering servo can be seen on right.

goes over the air intake and a fuel filter is inserted in the blue silicon (PB of course) fuel line. One of those 'all purpose' silencers that go straight over the exhaust exit and fix with a couple of wires, with the screw against the crankscase completed the job

I did not want to complicate the issue by adding a rear bumper plate and a dustbin silencer since I intend to use the car as a garden buggy to keep my Mardave stock car company so no great performance is sought at the moment.



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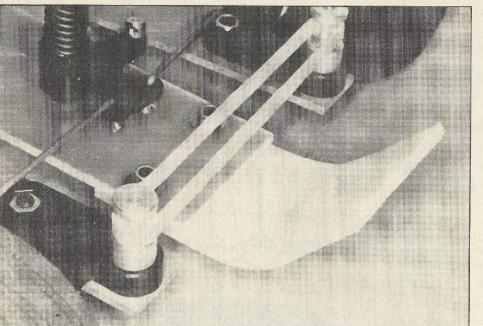
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Short bumper which must be bent up to shape. Bands controlled and steadying steering fixed between posts.

The bodyshell which is vaguely of Volkswagen Beetle design, fits very well and looks the part. Rear fixing is interesting since the clip goes through the body to grip a rear bumper/cum support wire inside the body. Whether

in use it will tend to tear out only time will tell. There is room for two more such clips along the wire and indentations on the shell suggest that these could be used where a hard life is expected for the machine.

other i.c. powered kits on the market; is easy to assemble with very little to go wrong. There is plent of room in the body for Rx etc. Rear springing is simple, ready installed and adequate. GRP strip provides a degree of front springing. Altogether it should be immensely popular for the buggy boys, and worth putting in the back of the car when going to more prestigious race meetings to have a bit of fun when

racing is over or weather precludes

decorate the body to choice. I settled for

distributing. It is semi-transparent and

needs a white or silver backing to bring

out its high quality. No decals are provided in the kit so recourse must be

Bullit costs only about two thirds of

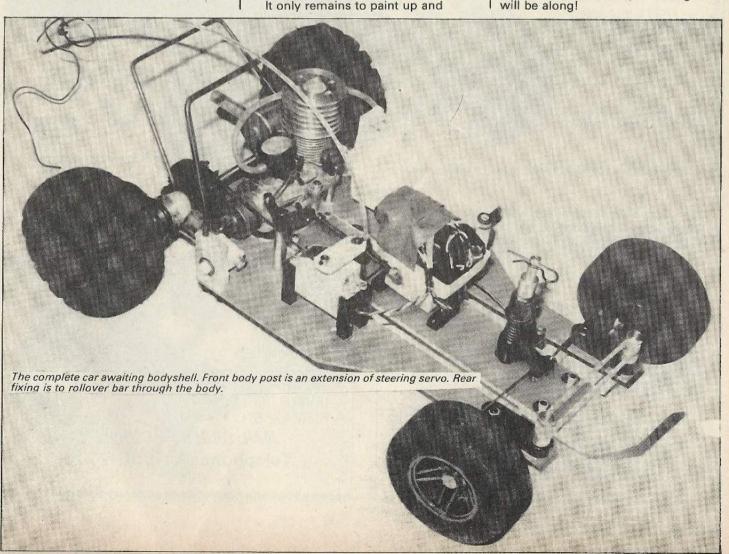
an all-red job as noted, using the

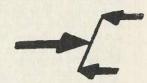
Hobbynox paint which PB are

had to the might-be-useful box.

## track running. STOP PRESS!

I have just read in my copy of the French model monthly Adepte that by adding a further GRP plate and a cross-stop it is possible to get the CG further back so that more powerful engines such as OPS, ST or OS can be utilised. At the moment Vecos or similar are recommended wear. I have no doubt that if this idea is sound the French group MRC (Model Racing Car) will be arranging a step-up kit and PB Racing Products will have it on offer . . . So don't worry — if it's good it will be along!





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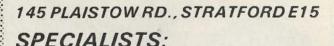
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24 Radio Control Model Cars 25

# BUSBY TAKING STOCKS

I.C. STOCK CARS ARE BECOMING MORE AND MORE POPULAR, due partly, I think, to the national governing body the Radio Stock Car Association (RSCA) maintaining a maximum cost limit on car and engine in its rules. Dickie Dickson has invited me to do a regular column on hints and tips and, hopefully, answer any queries that readers might have. I do not reckon to know all the answers but those I don't I will endeavour to find out from other sources. As there are only a certain amount of tips I myself know of I hope some of you will send in some of your tips which can be used in the column - I don't want all your secrets, just the odd one or two!

#### Joining Up!

The RSCA as governing body of our hobby in England has 15 clubs affiliated to it with a total membership of around 700 and this year is sanctioning some 250 race meetings up and down the country. Membership is very reasonable at £2 a year, which includes 3rd party insurance cover for drivers when racing or practising with their cars. This alone, I think, is worth becoming a member. You can join by writing to Peter Baldwin, 23 St James Road, West Croydon Surrey. Membership of your nearest club is also advisable, especially for beginners where ideas and help can be so readily obtained.

#### **Troublefree Throttle Blipping**

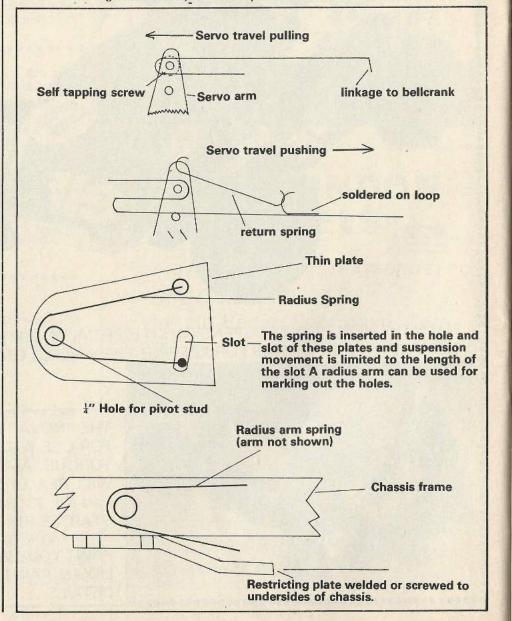
It is helpful on your model stock car
— or any model car for that matter — to
be able to start the engine and adjust
the carburettor without having to
operate the radio control gear to the

throttle. This saves the r/c battery life and enables adjustments to be made even though there is someone else operating on your frequency. To enable you to do this an over-ride system is needed.

There are a couple of ways of doing this but I find the simpler is by using U-bends in the linkage wire. Sixteen gauge welding wire is quite adequate for throttle linkages and is easy to bend.

However, it is NOT suitable for steering where piano wire at least is needed.

If the servo is being used to push open the throttle the return spring can be attached to the linkage wire on a soldered on loop on the servo output arm. In this way the servo is not taking the load of the spring when operating but is still spring loaded to return at other times.



## Keeping Tyres on & Getting them Off

From the evidence of some meetings so far this season it seems that a number of drivers are having trouble keeping tyres on wheels whilst racing. With stock cars being rather heavy (7½lbs max under RSCA rules) and the racing on a tight oval, the glueing of tyres has to be a very good job. The method I use and I've not had one come adrift yet (touch wood) is as follows:

Coat inside of tyres with a good impact adhesive (Evo-stik, Bostik etc). Whilst this is drying roughen up the outside of the wheel hubs with hacksaw blade, file or coarse emery cloth. Glue wheel and re-coat tyre. Stretch tyre over wheel with glue still wet. At this stage have the wheel on a mandrel in a vice. Turn the tyre on the wheel to ensure coverage of whole wheel and spin wheel on mandrel to ensure trueness then allow to dry.

One method I've heard of for easy replacement of worn or damaged tyres is to wrap insulating tape round the wheel hub before glueing on the tyre. When the tyre needs replacing a knife cut onto the tape (through what remains of the tyre) allows this and the old tape tyre to be peeled off leaving wheel nice and clean. I've not tried this method myself but would like to hear from anyone who has.

## Prettying up Your Wheels

Talking of wheels, if you would like to have your white nylon ones a nice permanent colour but don't fancy painting all those spokes etc, try Nulon nylon dye. It comes in various colours, costs about 50p and can be bought from most chemists. Wheels etc have to be boiled and immersed in the solution for about 15 minutes. It doesn't seem to have any detrimental effect on them. In fact, mouldings regain moisture they have lost during moulding making them more pliable and less liable to breakage. Any stresses are also taken out which again adds to their strength. Several other drivers also boil all the nylon parts on their cars before using them — apart from bodies that is!

One word of warning! Don't use your wife's or mother's best saucepan when dyeing wheels etc, it could stain. A large tin can is adequate. One other point, once the heat has been switched off allow wheels to cool gradually along with the water.

### Keep It Clean

The only thing I don't like too much about i.c. stock car racing is that cars get a bit messy with much of the oil coming from the silencer/engine joint. This can be avoided to a great extent by using liquid silicone, the type used for bathrooms, aquariums etc. Some model shops also stock it as it is used on electric car tyres.

Make sure engine and silencer are

clean and oil-free. Assemble and apply a thick fillet of silicone along the joint and allow to dry. It can also be used for locking threads, in particular for the small screws which hold the carb. onto a Veco as it also makes these air tight. It's fairly expensive at around £1.75 a tube, and not much is needed at a time and it keeps well and will not harden in the tube if the cap is replaced properly.

### Limiting the Rear Springing

If your car is fitted with the type of rear suspension that uses a U-shaped radius arm spring a useful modification is to limit the amount of travel of the radius arm, thus preventing the rear axle being bent and the car's handling upset in the event of a bad knock. This can be done in a couple of ways. Either make up thin steel or alloy plates that fit between the radius arm and radius spring or attach a short plate under the chassis frame to prevent the leg of the radius spring from moving past it.

#### Get Back Lost Power

Good news for Veco and Irvine owners. Bob Clayfield, current undisputed World Champion, is reconditioning Veco 19 and 21 and Irvine 21 pistons and liners. He grinds out worn liners, chrome plates them, precision grinds them back to the original size. The cost is £6.00. For 19s he requires the piston AND liner; for 21s the liner only. Bob's address is: 9 Hall Road, Burbage, Hinckley, Leics., LE10 2LU.



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