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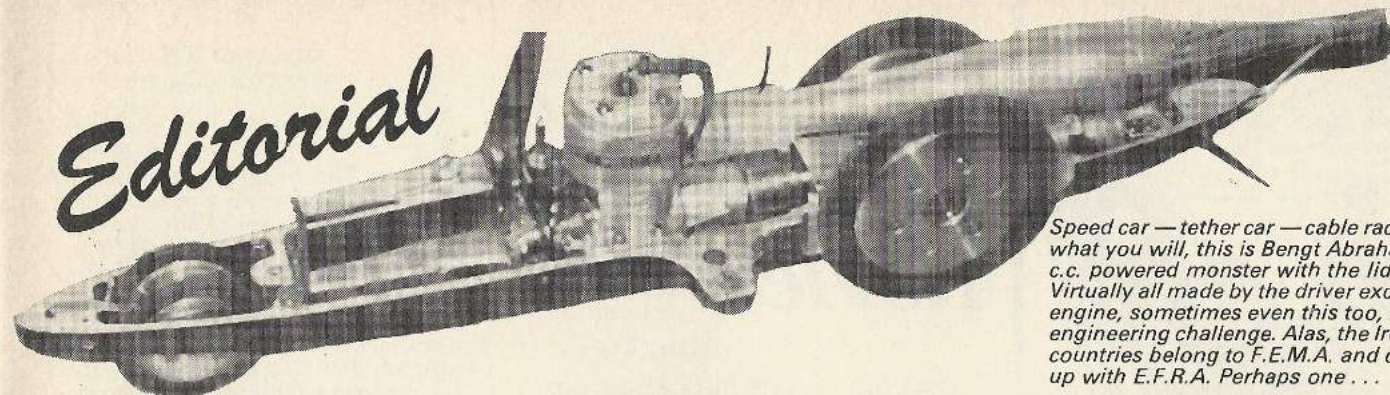
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Editorial



Speed car — tether car — cable racer — call it what you will, this is Bengt Abrahamson's 5 c.c. powered monster with the lid off. Virtually all made by the driver except for the engine, sometimes even this too, it offers an engineering challenge. Alas, the Iron Curtain countries belong to F.E.M.A. and cannot join up with E.F.R.A. Perhaps one...

More and More and Still More . . .

ONE OF THE NICEST aspects of any magazine is when its readers start to write the articles, allowing the Editor to sit back and relax or even have time to take part actively in the activities he is encouraging. First we have to attract the support of the elite cadre of the hobby/sport so that readers can see for themselves that these mighty men/women are quite human and can get oil on their T-shirts like everyone else. After that it is but a small wheel turn to get them to have a go themselves.

A popular column in most constructional hobby magazines is a 'readers' Hints' feature. Very nearly every one of us has some pet gimmick or gadget or money/labour saving device to offer an interested public. This month I include a few that have turned up unsolicited and have to thank our North of the Border correspondent Peter Walker for reminding me of this valuable additional column.

The Stockcar Scene

In my round-up of suitable 'tigers' to contribute to our columns I wrote to Stewart Busby of Stockcars Leicester inviting his help and suggested that stox were about to burst into popularity. He replied that they already had and instanced that the RSCA Calendar featured some 240 meetings scheduled for the current season, plus of course another 50 or 60 from the 'other' group Stockcar England, whose World Championship is reported in this issue. They are affiliated with the rather less cost restrictive Stockcar Europe with membership from Holland, Belgium, Italy and other countries in Europe.

Stu has promised to do us a regular feature — such as he already does so very successfully for his club newsletter — and would welcome any queries, operational, tactics, problems that he can seize upon to broaden his article. He is specially knowledgeable on Vecos, with a growing acquaintance with Super Tigres and of course a Mardave specialist... write in care of the mag and get the gen in his column.

The American Association

As a newly paid-up member of the American controlling body ROAR (Radio Operated Automobile Racing) I have received their very elegant Newsletter and Rule Book. It is looseleaf in form, so that changes can be slipped into place without having to reprint the whole book as editor points out. Basically, the rules are very much the same as our own, except that their indoor electric racing is generally confined to 4-cell cars. One rule that I enjoyed particularly appears in the 1/12th rules "No. 22. 12 If not specifically allowed, it is not legal." That should put a stop to any clever rule-twisting — as if anyone would attempt such a thing!

Czech Nationals

Thanks to our friendly contemporary auto-modell technik of West Germany I have news of the Czech Nats. which took place on the car park of the bathing beach at Ostrava. As a warming up item they had an electric car Slalom event, where some 23 'gates' were arranged in a 45ft. square and drivers had to go through without touching to score a 'clean' of 110 points. Three rounds were run with the two best to count, there were also time penalties.

Then followed the two main 1/8th events. Winner of the Formula was 16-year old Martin Plch (Plch — yes, just like that! — means slug in Czech, but he was by no means sluggish!) with Futaba r/c and HB21 engine. Sports/GT went to a veteran driver Ladislav Rehak again with Futaba and in this case a Webra engine. Other engines included Super Tigre and OS Max plus the local MVVS as the most popular.

No indication of kit models indeed report stated "each driver must make the whole of the model himself." This did not include r/c and engine, though one finalist was using his o.d. radio equipment.

Speedsport . . .

I also belong to FEMA (Federation Europeenne du Modelisme Automobile) which operates Speedsport, or racing a tethered car round a pylon. To this body the Eastern bloc modellers belong, and, since their

government bodies will only subsidise a single organisation in any sport, this bars them from joining EFRA. A great pity this since they are obviously keen, and I hear from modellers in most countries, Poland, East Germany, what you will.

It is interesting that FEMA banned nitro in fuel several years ago now, just as EFRA are trying to do now but their speed records have not suffered at all. For instance their 2.5 c.c. record stands at around 150 mph. Against this, the nitro lobby point out that this is all out speed and that it would not be possible to obtain comparable speeds in r/c racing with constant adjustments of speed for corners and so on. Nevertheless it makes one think...

Their cars look very unreal to us, being speed machines, but I show chairman Bengt Abrahamson's 5 c.c. car, photographed when I last met him in London, which gives some idea of the beautiful workmanship that goes into it.

A Double for the PB Alpha

First International meeting of the season was at Carnoux in France (the Spanish G.P. was cancelled since the circuit owner disappeared, believed kidnapped!) on April 5th. Driving the production model PB Alpha suspension car with Picco engine Keith Pledsted won both the Formula and Sports/GT events. Keith also had FTD on Sports/GT day, Sabattini took it on Formula day, with two other PB Team drivers runners-up. With ten-car finals the British contingent occupied no less than 10 of the 20 final places!

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

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Hemel Hempstead,
Herts, HP1 1NL.

Club & Track Review

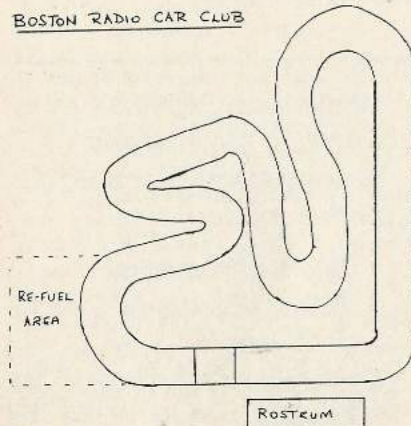
Boston Radio Car Club

Ron Wylie has sent in a nice sketch of the club's purpose built track at Great Steeping, near Spilsby, which is on the A16 between Louth and Boston. You turn off the A16 into Spilsby, go right through and out the other side and turn left after about three quarters of a mile at a signpost usually marked LCC Depot — on race days club signs are posted. This no doubt contributed to the success of the first of 10 rounds in the East Midlands P.B. Championship.

Thirty five drivers from the five participating clubs Boston, Lilford, Newbridge, Scunthorpe and West Burton came to the start line, all but two achieving scored runs. Everybody gets five heats, best three to count towards points for the P.B. Team Trophy plus ranking for A and B finals in both Formula and Sports/GT. Four out of the five heats were run in the dry with Mick Lammiman (Boston) taking FTD with 16 laps in 5.404 min. Then rain set in, so that finals were run in the wet. This leg by the way was for Formula cars, return will be Sports/GT.

Lammiman went on to take the A Final from Martin Williams (West Burton) with Derek Brader (Boston) in third place after an early lead. B Final went to Neil McLeod (Boston), Paul Boulton in No. 2 (Scunthorpe) and Ron Wylie third. Finalists ran 7PBs, 2 Serpents, 1 Serpent/Omega, 1 SG, 2 Rapiers, 2 Scratch with 6 OPS, 6 OS, 1 Picco.

BOSTON RADIO CAR CLUB



Mendip Model Motor Racing Club

Mendip report that their canvass for British Grand Prix support has been producing other useful side effects such as the invitation to take part in a series of races being organised by the French controlling body (FFMARC) during 1981 — which could add a racing flavour to drivers holidaying in France if they choose their spot with this in mind. The club also notes that the BRCA Handbook now contains a list of saloon bodies legal for that class — and raises the dire thought that some members might not be BRCA members. Perish the thought! Through even non-members can acquire a copy through the Secretary for the modest sum of 80p plus large SAE.

Yorkshire RCMCR

As ever our Bradford friends on the ball — or should I say body — with an offer of personalised (I like that word!) name stickers to go on their cars. Printed on clear vinyl and self-adhesive they cost £3 for 100 printed in several colours. With 20 interested parties then 100 club stickers to go on the car aerofoils would be made free of charge.

Bradford are also hosting at Littlemoor Park a formula 8-20 later in April — all over by now of course — which is Bill Burkinshaw's pet scheme of RCM & E. I am told the Lilford meeting attracted some 16 entries and Bill made third in the final. Blue tyres from Raydio Tyres Int.

Vauxhall Model and Engineering (R/C Car Section)

Secretary: Sid Bewley
44 Mountview Avenue
Dunstable
Beds
(Tel: 606952)

This club races 1/12th Electric and sec. advises that they will be holding an Open Meeting, their first attempt, on June 14th. Entry enquiries very welcome. Alas no other details provided, but I can vouch for the quality of any 'in house' venue and other facilities since I have, in days gone by, visited there to run i.c. stock cars on a former netball ground.

Basildon Hot Rod R/C Car Club

Secretary: J. W. Brown
10 Delmar Gardens
Wickford
Essex SS11 7NA
(Tel: Wickford 61531)

Basildon has been running now for over a year and has just moved over the the South Green Memorial Hall in nearby Billericay. Meetings take place on the first two Thursdays and last two Fridays of the month starting at 7.00 p.m. and 7.30 p.m. respectively and carrying on to 11.00 p.m. Annual sub is £1 plus weekly racing fee of £1 for adults and 75p for juniors. Tea and biscuits are also provided. Racing at present is for 1/10th and 1/12th scale their main object being 'racing for fun.'

Oxclose R/C Car Club

Secretary: M. R. Bonney
9 Lyndhurst Avenue
Chester-le-Street
Co. Durham DH3 4AR
(Tel: 883911)

The club meets in the Oxclose Comprehensive School every Thursday from 7-9.00 p.m. and on Saturdays from 12.30 to 4.30. All electric interests with a purpose built outdoor track and good indoor facilities. Racing to BRCA rules 1/12th scale standard is run indoors and 1/12th Modified outdoors. They would be interested to hear from anyone interested in either 1/12th scale Sports or Buggy racing. Spectators and new members welcome and special attention to newcomers just starting racing.

Dorothy Stringer Auto Club

Secretary: B. Askey
20 Surrenden Road
Brighton
Sussex BN1 6PP
(Tel: 500999)

Modestly describing themselves as a small club which has just started 'proper' racing, co-secretary goes on to say they race 1/12th with fire hose and car tyres outlining the track, plus homemade coloured starting lights. This I would like to hear more about. They race every Monday in the school's main hall, school being the Dorothy Stringer High School, which accounts for the club name.

Hexham R/C Car Club

Secretary: Alexis Hammer
Hill Crest
Hill Street
Corbridge
Northumberland NE45 5AA

This recently formed club meets weekly in the Moot Hall (Lockhurst Room) Hexham and also has a weekly turnout on the council car park on Sunday mornings from 10-12.30. A current membership amounts to 24, most members with their own cars. It is hoped to build a circuit with the money received from local businessmen as sponsorship. Congratulations Hexham on having the right approach and to the town for the right sort of commercial interests! Good luck.

Northallerton M.C.C.

Secretary: John Robinson
15 Viking Court,
Brompton, Northallerton
North Yorks
(Tel: 71255)

For some reason report of this club appears to have been overlooked, since I note date on a letter is last October! Profound apologies! Electric car racing in 1/10th and 1/12th scale takes place on Sunday afternoons at Bedale School, near Northallerton. Membership is at 25, but there is still room for new

members. Junior members are very welcome and there is a class for 380 motors. Facilities at the school are very good and it is hoped to be running an additional Wednesday evening meeting. They are interested in inter-club competition but as yet have not their mark in this direction (but as they add they are very ambitious). Any local clubs interested in friendly inter-club meetings are invited to get in touch.

New Clubs

Wallington R/C Electric Car Club

Secretary: Norman Barratt
10 Cheyham Gardens
Hays Walk
Cheam Surrey.
(Tel: 01 642 7267)

Club Start Sought

R. A. Ludlow
c/o 4 Frankland House
Balham Hill SW2

Members invited to contact above for a club in South London area.

M. Flack

51 Derham Gardens
Upminster, Essex RM16 3HB
(Tel: Up. 51277)

Some 20 members required for Upminster to race 1/12 standard electric (not stox).



BADGE OF THE MONTH

In a few weeks now the world's most expert r/c model car drivers will be assembling at Indianapolis for the 3rd World Championships Meeting. Hosts will be the United States organising body ROAR who are running the meeting under the able direction of ROAR's Vice Chairman Joe Werner. So what could be more appropriate than their badge — a design of very long standing, it must be ten years or more — which will doubtless emblazon many a homing T-shirt.

"NORTH OF THE BORDER"

1/12th Scale

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

The second 'Scottish Grand Prix' was held by the Devon Valley Club in the Albert Hall in Stirling on 1st March, 1981. About 80 cars raced, the format being that all drivers, after two practice sessions, were allowed two 'qualifying' runs, the best 24 finals, and lastly the best six eventually into the senior final. The Juniors were also catered for, with semi-finals and finals.

Racing was controlled through a computer, with five-minute duration being the order of the day. All cars had to be BRCA 'standard', and Martin Wallbank, who scrutineered, had to reject a few 'suspect' motors. However, all had an enjoyable day, although one felt sorry for the Juniors, who had to re-run their final after the senior final, and it was obvious that the delay was affecting their nerves!!

Tomothy Price's bright yellow and black car won the Concours D' elegance, and he then proceeded to make it a day to remember by winning the Junior title. In the Senior event, some of the 'old faithful' names appeared again, with Tom Wilson being victorious (an overdue success, because he has been 'there or thereabouts' in many competitions for some time), with Dave Clark (Northern Champ) and John

Robertson (Nationals Champ) filling the 2nd and 3rd places.

Two points of interest were that I understand Tom was racing a Jo-mac 2000 Lightning, which I believe makes it a first major success for this relatively new car; and (although myself personally interested), Kerr Walker, who was unbeaten last year in all Junior Championships, and now racing Senior (16 years old), has successfully made the 'transition', having been 6th in the Senior Final at the Northern Championships and achieved 5th spot in the Senior Final at this Scottish Grand Prix.

The day was rounded off with a short team race, in which Kirkcaldy (virtually Scottish Team Champs) again won, with Bo'ness (Forth Valley) taking 2nd spot in a very closely fought race. Cupar and Edinburgh clubs were 3rd and 4th respectively.

One noticeable point regarding the track was that Devon Valley also boasted a 'fly-over', which Edinburgh had initiated, and certainly this part of the track does give exciting spectator viewing — one car in particular, obviously well rear-weighted, did quite an impressive 'fresh air' jump as it was coming off the bridge! Devon Valley have again obviously spent a lot of time organizing and running the event, and they are due a word of thanks for the effort.

On a more domestic note, Forth Valley are again staging the Scottish Nationals in October, 1981 — further details to follow. This brings me to the

point that serious attempts are now being made to form a Scottish Federation, in order to organize things properly. Most of these present at the Scottish Grand Prix know about this, and it is intended to hold an inaugural meeting as soon as possible — so if any Clubs want to be advised, please let me know.

Finally, I have been notified of two further Clubs with full details, all as follows:—

Dunbar Racing Club, racing at the Portland Cement Club in Dunbar every Monday from about 7.00 p.m. to 10.30 p.m. Anyone interested should go along, or they can contact Doug Forrest at Greenhead Farm, Restin (sorry, no 'phone, but he welcomes anyone 'popping in' to see him).
Strathclyde Model Automobile Club (SMAC for short) have been in existence for some time, but full details are that they race at Renfrew High School every Thursday from 7.30 p.m. to 10.00 p.m. and also every Sunday afternoon from 2.30 p.m. to 5.30 p.m. Again, anyone interested can contact John McGuire, 24 Tarfside Gardens, Glasgow (Phone 041 882 6410)

Remember — any other Clubs please let me know, so that we can not only publicize the fact, but also ensure you don't get left out in the cold in future developments; I am happy to hear from anyone (Phone Broxburn 0506 853703). As the advert says, 'Someone, somewhere, is waiting to hear from you'.



This twin engined monster is powered by twin VecomMcCoy's, looks mean but suffer rather from understeer! Not run in competitions but put on as a spectator feature at meetings — the croud loves it. Rob Morphett is the perpetuator, also from Adelaide district.

HAVE BEEN TRYING TO SLIP THIS ITEM from Australia in for a long time, but the time seems ripe right now. David Hyde of Model Radio Car Club of Adelaide (MRCCA) writes that the club has been in operation now nearly five years with over 20 members plus juniors and associates. Racing takes place on a carpark hired from the city council, but long term plans include a permanent purpose built circuit. With the nearest club some 400 miles away racing naturally runs at club level. The boys from Melbourne do come now and again, and on their first large meeting they attracted entries from Perth and Sydney. Some drivers travelled over 2800 miles in the round trip for the weekend!

Cars raced are mainly PB Internationals, and Associated, with PB leading the field. Engines are mainly Veco McCoy, K and B with a few OPS and Super Tigres with differentials the 'in' thing. They are currently going through the noise problem and have difficulty getting it down even as low as 85 Db. As a little diversion they cannot understand how we can race in the wet (nor can our American friends it seems!) but ask if we have any experience of racing in 42° Centigrade (about 105° Fahrenheit).

Keith Plested stopped off in Australia last autumn on the way to Japan and took part in the Australian Grand Prix. He made FTD but blew up in the final, giving the local drivers all the novelty of competing against a known European expert and the pleasure of keeping the trophies in safe Australian hands. Keith thoroughly enjoyed the meeting and speaks highly of their organisation and the quality of the G.P. Circuit.

For those interested in what it is like to race on the other side of the world, we have also received news from New Zealand. Our thanks to NZ racers for the following article:

Kiwi News Electrics

Thirteen thousand miles away from Britain, racing is developing along quite different lines from that in UK.

A small nucleus of 1/8 radio controlled car racers has existed for many years here and some of these have played with electrics in scale 1/12. It was only in 1979 when a club was formed in Gisborne that electrics started to get a hold in this country. Apparently the same thing was happening in Australia at this time.

We now have a situation where clubs have sprung up in the major centres of Christchurch, Gisborne, Auckland, Wellington, Hamilton, Palmerstone North, New Plymouth and Hastings most with about six members and the largest two being Gisborne and Wellington with 24 and 12 members respectively.

Although the Gisborne club also founded a national body called NZ AREC (New Zealand Administration for Radio controlled Electric Cars) and it is still the only properly constituted body in NZ, membership remains fragmented as each club gets established and is trying to decide whether to affiliate or stay independent. Funny in a country so small and with a total population of less than 3 million! The important thing is that the sport is on the move and through AREC has attracted good government support for new clubs.

Racing here tends to lean close to the Japanese way with a little US and UK mixed in for good measure!

Basically rules are ROAR type with a few minor alterations based on local experience, particularly as far as motors go. Being so close to Japan and the factories of Igarashi and Mabuchi we find the present hassles in UK quite

NEWS FROM THE ANTIPODES

(Pics from David Hyde,
Model Racing Car Club of Adelaide)

understandable yet amusing.

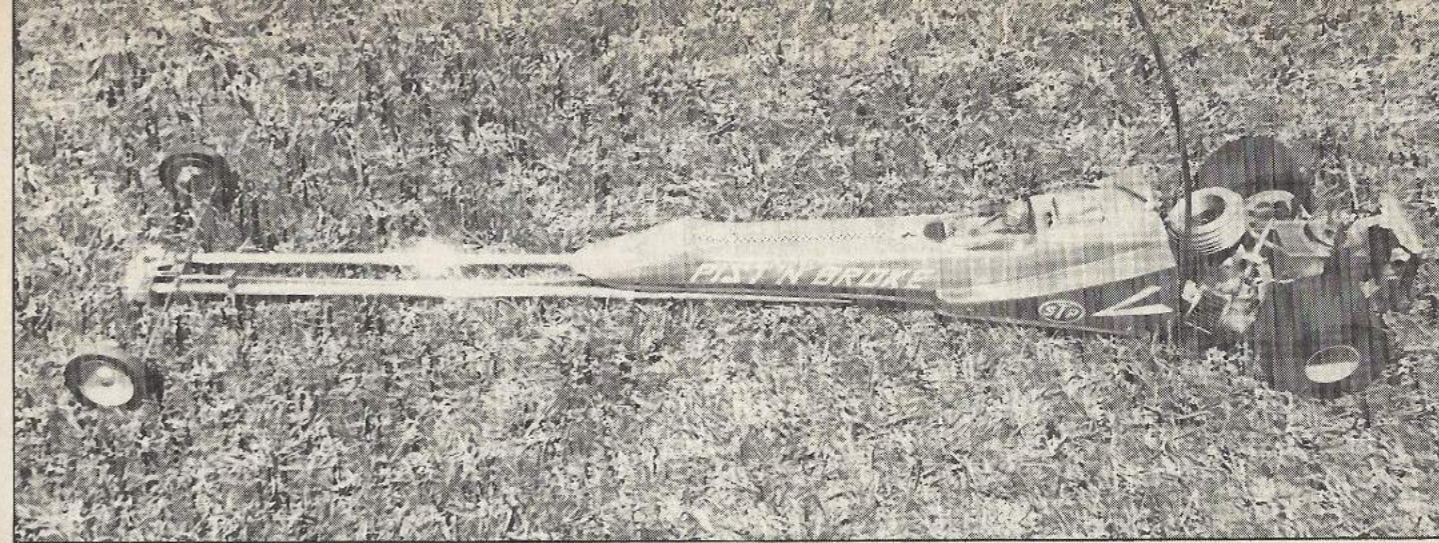
Scale cars are allowed here if the wheelbase and tracks are within 10% plus or minus of the real car when scaled. So modern F1 cars can be constructed. With wide 'boots' and the slightly longer wheelbase and lighter abbreviated bodies, these cars are fast and now reach 65 kph on straights using 7.2V. With the RS550RS motors on 12V they can top 75 km/hr.

Electronic speed controllers are popular in Christchurch but elsewhere coil resistors with wiper arms are used. Associated/Parma type in most places with JRM flat or drum type here in Gisborne. Various Ohms are used from 0.5 to 5.0 and in the future we will discuss perhaps the effect of these resistors on vehicle performance. Most electronic speed controllers have been too slow here in Gisborne.

Most racing is outdoor on car parks with tracks marked out with ropes. Most centres using wide tracks of abstract shape while Gisborne uses condensed replicas of real circuits, a new circuit each week. Tyres were used as corner markers but now on hot mix sharp nails retain the ropes and accidental damage is a lot less. Amongst top drivers six car races have very few spills and racing is fast but slower drivers tend to hit each other a lot.

Classes raced here vary around the country but seem to be the three AREC ones of Production. (Out of the box unmodified at all), Limited (Standard) with modified chassis etc permitted but standard stock untouched RS540/380/05/540S motors being used, and lastly Unlimited (Modified — anything goes within the regulation sizes etc).

Limited is the most popular by far. Minimum weight is 28oz but most cars weigh in at some 1200gms. Our latest formula one to see the tracks of 900gms and the lightest car here in NZ we think.



A dragster from Australia. It is 1/12 scale powered by an OPS40 and even has a parachute that works. Only problem is finding a long enough straight for it to run. Is the property of "Nobby" O'Brien of Adelaide.

We run medium soft tyres in Gisborne but the others use what you call soft outdoor and we call hard! We run your indoor tyres here only softer — OUTDOORS. One has to remain competitive and a tyre set will last you only three-four weeks. (Say 15-18 races) before they have to be replaced. You chaps fret about your engines whilst here a tyre can give more reduction in lap time than any motor could!

We have also hollow sponge softs which I developed but agree not to run. If you had a car set up and put in a Parma Ferrari motor it would not go as fast as if you left the motor standard and ran our soft rubber! How long before the tyre war gets to UK?

We also race outdoors on wet tracks and in drizzle. (Not heavy rain). Something unique to us and Japan apparently! Only Gisborne practices that but seeing a little 1/12 trailing a plume of spray from special wet weather tyres is really something. On wet weather rubber they maintain their handability (?) and one has the problem of team management if the weather is neither wet nor dry and track is half wet half dry. Silicone rubber protects radio gear etc.

We race 5 minutes and allow the lead

car to complete the lap he is on at 5 mins. Then everyone else finishes the lap he is on and the times all stop watched. The average lap times are then worked out and these decide the final placings. No arguing over who didn't stop when the flag fell!

We would like to race against a UK club in postal form on similar tracks just to compare times for interest and fun. Anyone interested? We did it with the Aussies and it worked well.

More news from NZ soon. Good racing everyone.

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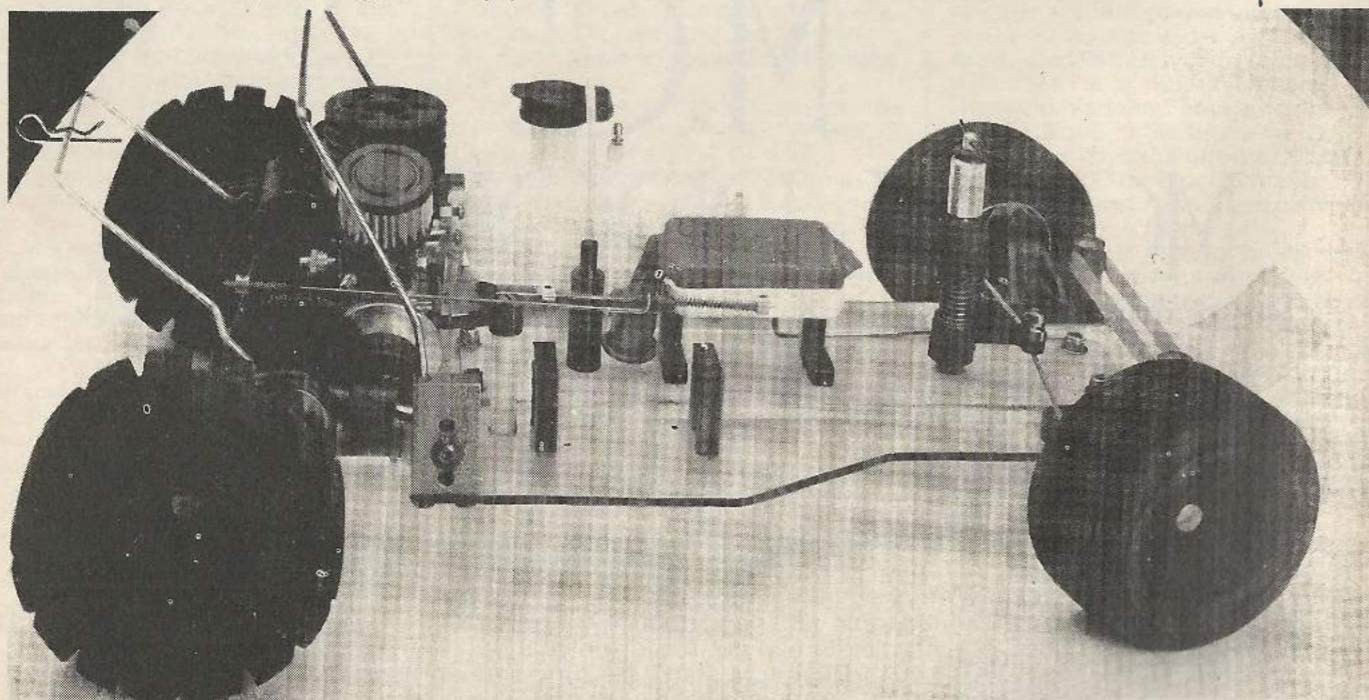
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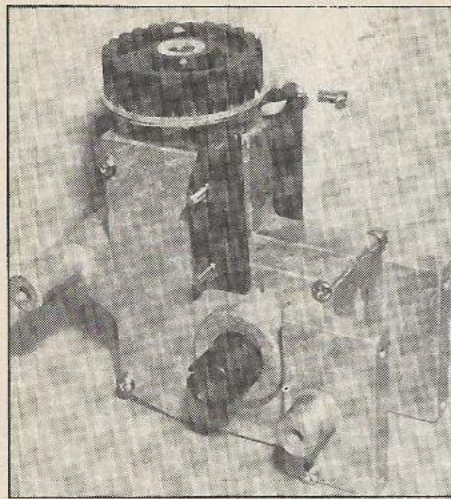
*Porsche bodyshell
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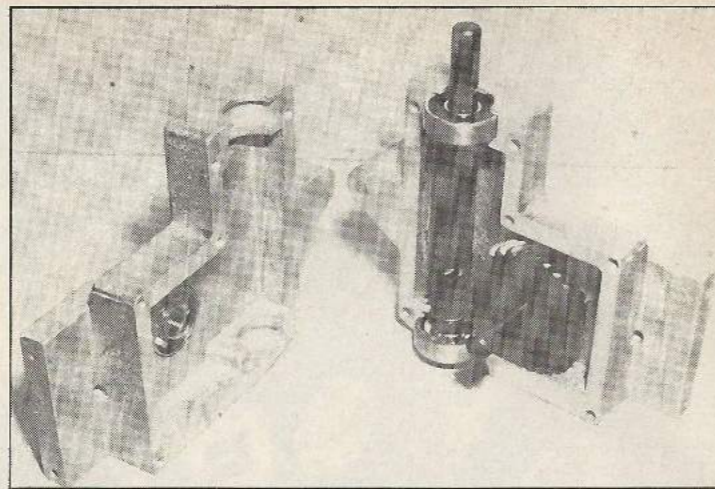
AFTER ALL THE RICH ASSORTMENT of i.c. powered buggies on display at the Toy Fair it is really no surprise to find myself tempted into an unpremeditated purchase of Hobby Products Rally Buggy in 1/8th scale for .19 - .21 engines. I settled for this size since there is a better range of silencers and heat sink heads for the larger engines. They are also often less fussy to start and more controllable through their speed range than some of the smaller sizes now installed in the second generation rally/buggy entry. The HP car, distributed by Ripmax in the UK, comes in two versions, either a Texas Wild Baja body or the more elegant Porsche 930 Turbo shell. I took the latter, perhaps because the Watford model shop where I got my car already had one built up in the window with unpainted body in place and it proved irresistible!

But to work! For the experienced model car builder who might be becoming a little blasé this is a really new experience. The greater part of the kit contents is in metal — Mazek such as is used for carburettor bodies and the like on fullsize cars, or a similar alloy of medium weight that moulds very cleanly. It also has the fashionable feature of being fully sprung all round at two thirds the going rate of i.c. racing cars in the scale. Of course construction is not quite so sophisticated verging on the rugged side.

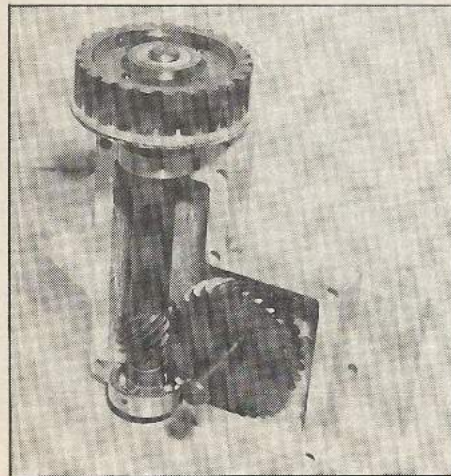
Tyres are all moulded, ribbed for the



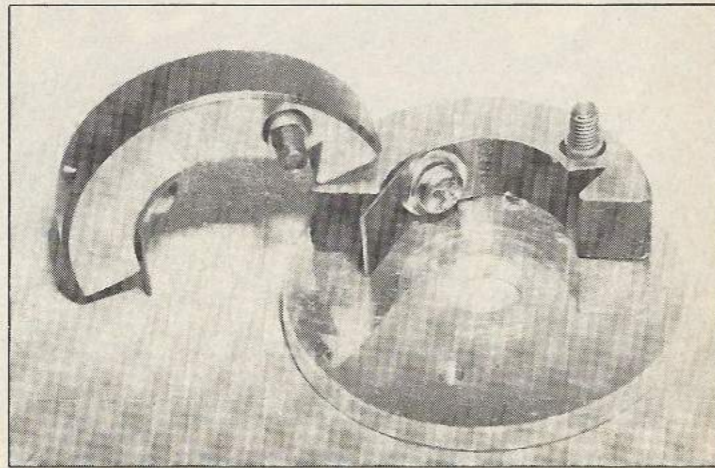
► Gear box castings with bevel gears in place



◀ Bevels with toothed spur gear attached

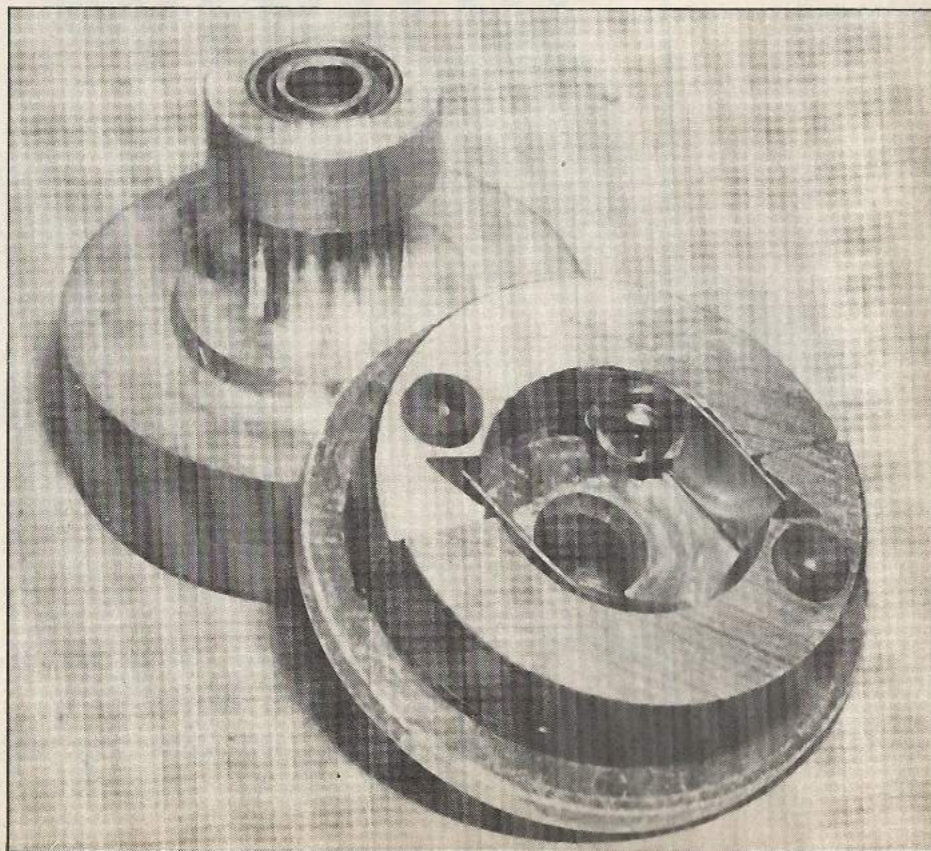


◀ Gearbox silicone sealed and bolted up. Note the rod type brake scheme which swings up on to lining attached to spur gear base.



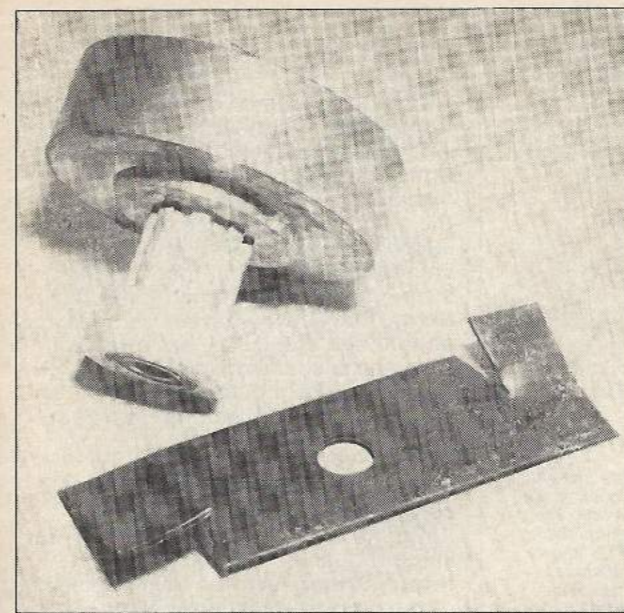
► Clutch shoes and flywheel

▼ Shoes in place and ballraced bellhousing

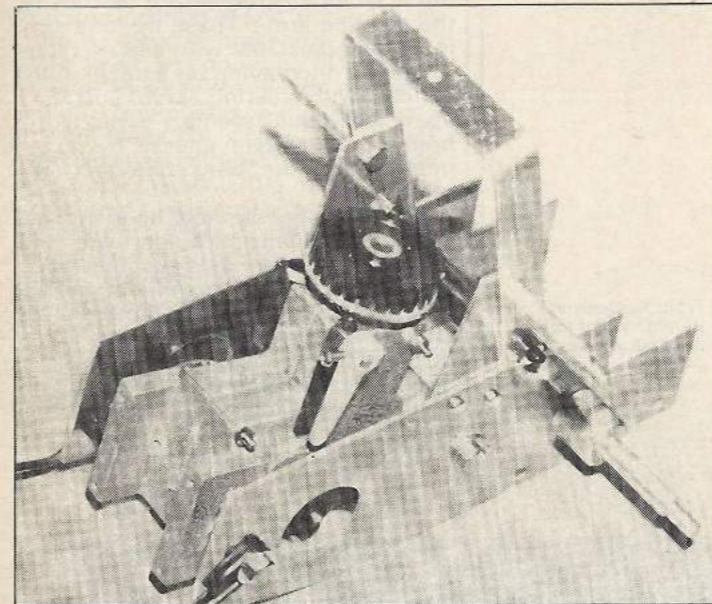


front and knobblies for the rear. They are not solid but more like tubeless fullsize tyres in design. Lack of pumped in air seems no disadvantage as the walls are quite robust. Hubs are metal and tyres, or rather tyre edges, are attached with cyanoacrilate superglue, Zap or similar, with the care associated with superglues. Engine lies flat at the rear with the crankshaft pointing upwards and driving by a belt through a simple enclosed gearbox. Construction should follow the rather sparse instructions provided in the order given as assembled sections fit up as you go along. Illustrations are good, though parts numbers not helpful as no "bit list" is enclosed.

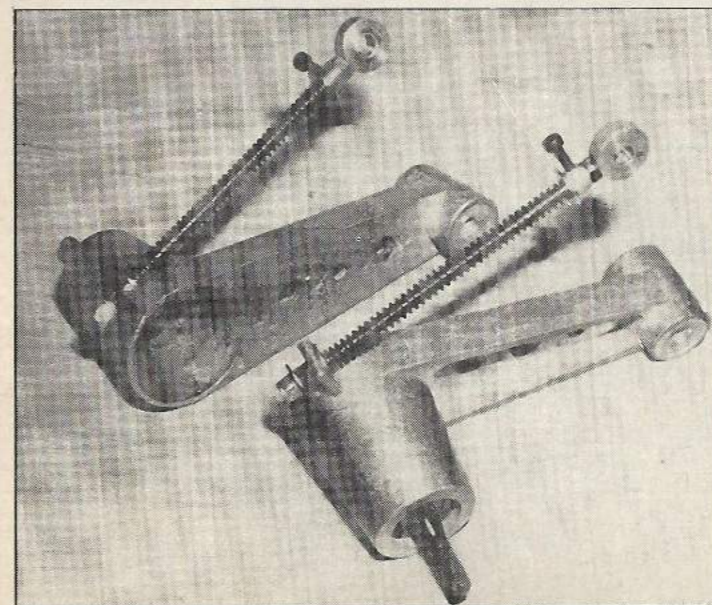
Stages 1-4 deal with assembly of gearbox and brake parts. Gears and gear shafts are beautifully machined; attachment is very sound. A push fit pin goes through gear boss and shaft and is then retained in place with a C-clip which goes neatly into the groove provided. It is therefore a simple job to take down again to change ratios, or for any other service job. Gear box is in two halves. Gear shafts and gears go into their machined places, together with the ballraced driving dogs. A tube of grease is included in the kit and should be used on the gears before sealing up the box. Gear case edges must be coated with silicone (not included in kit)



◀ Bellhousing and the cooling fan — which frightens me!



◀ Gearbox installed in rear chassis, with body fixing bar and suspension attachments



◀ Suspension arms assembly

and the whole job bolted up with nuts and bolts, which should be made fast with your favourite strength of Loctite. Note again the neat pin and C-clip fittings, particularly that the clip comes in several sizes to fit the diameters they encircle.

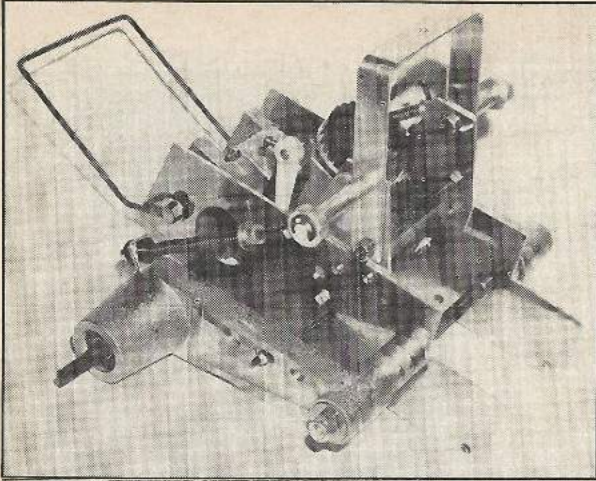
Now comes the assembly of clutch, bellhousing and the other etceteras. I chose my Fuji engine to power the Buggy since it comes with a pleasant silencer, which, though not good enough to be quiet down to 80dB, should serve in the wilds where off-road might be run. Those thinking of running where sound requirements are enforced (as yet there are no agreed rules for i.c. buggies) could very well attach a pipe silencer to the sub chassis (which we come to later).

Bellhousing is provided with a lining strip which fits exactly and is glued in with Evostik or epoxy glue. Clutch shoes are a little unusual (old-fashioned?) as a spring must be screwed to each and the end of it goes into a V-cut at the rear of the other shoe. Good solid stuff to last a lifetime. Gear on bellhousing is toothed to take a belt. On top of the usual adaptor (there were two in my kit I imagine to cover both customary threads but were identical) goes a starting cone. This means that when using your electric starter you will need the rubber ring as for pressing on an aircraft spinner in place of the hard rubber wheel.

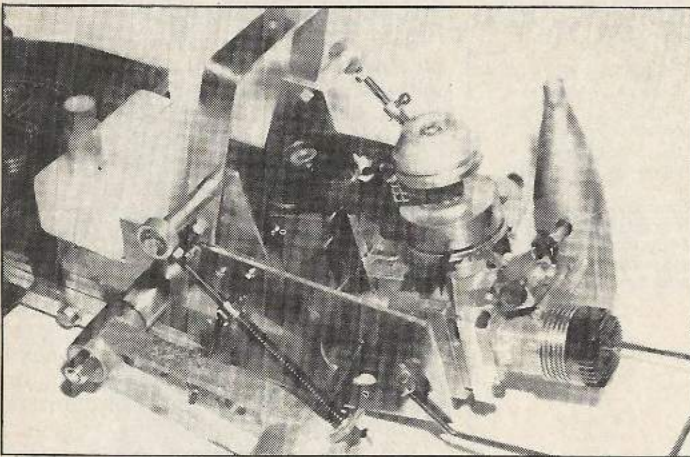
But wait a moment! There is also a fiendish looking cooling fan that should go on below the flywheel. It looks like a miniature of the blade that cuts my grass on the family mower and is described as a cooling fan. Very fairly it says in the instructions "cooling fan is very dangerous when running so please paint the tips of the blades with remarkable red." Remarkable indeed! It also says use fan at high temperatures, which, perhaps, is the letout for these cool parts! I have initially installed mine just to see how it all fits in but do not propose to run with it. Instead I am fitting the usual type of heatsink head. I will in any event have to cut away at least part of the rear window of the Porsche body to get at things which will help, then if engine seems to be running hot I will cut out front windscreen glazing to ensure a good current of air.

I would not recommend anyone to run with this fan in place. You may be careful but what about a casual marshal — it is finger cutting and would probably be banned by any sensible race director anyway.

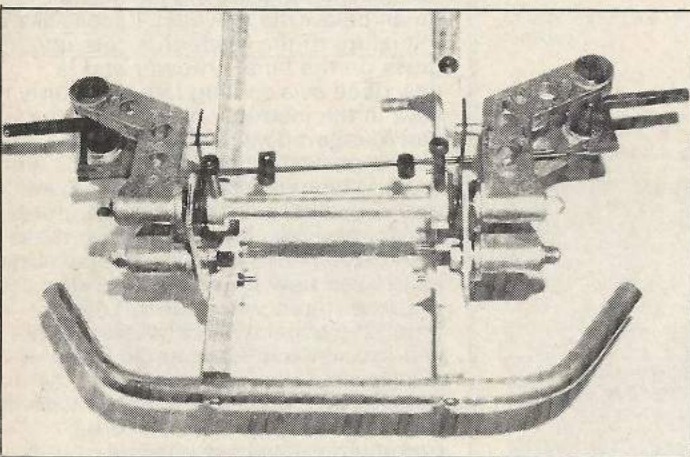
Engine is attached to the gearbox assembly with two metal pads which hold the engine attachment flanges in place, but do not use the fixing holes. As my Fuji adjusts to be just level with the large spur gear so that drive belt will go smoothly in place there are a couple of holes drilled in the holding pads which would enable rear fixing holes of the engine to be used to lock it in place. However, I do not think this is essential since there should be no special reason for movement. If you are super cautious



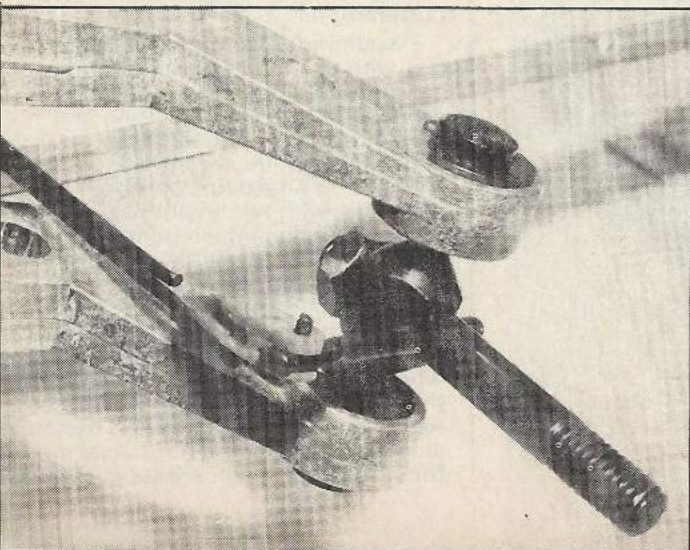
◀ Suspension arms fitted, with rear stub axles attached to gearbox, and rear bumper in place.



◀ Fuji engine installed with the cooling fan and drive belt. Fuel tank must be swung round 90° to allow servo lead/brake connections to be unobstructed.



◀ Front suspension assembly and front bumper in place



◀ Detail of the ingenious kingpin and stub axle assembly

then additional holes can be drilled in the pads and the engine fixed in usual way.

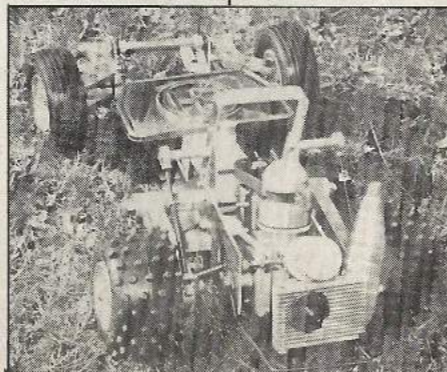
With the assembly of the rear chassis frames the layout begins to take shape. A little care is needed to see that the right bracing shafts go in the right places. Grease where shown and fit up the springs that balance the robust rear suspension arms. Remember the Loctite! This part is rather like the suspension of the French MicroRacing buggy that I built what seems ages ago, and indeed similar to, but more robust than, the suspension of stock cars. Rear bumper goes in place at this time as well as the bodymounting frame above.

A quiet moment follows with the sorting out of the steering parts. Kingpins are ballended and press into kingpin bushes. Stub axles slide through kingpins to be held in place by nuts and prevented from sliding through by the pressure of the steering arms. Quick keepers attach tie-rods to the steering arms. These tie rods are infinitely adjustable with allen screwed retainers, one having an extension to connect with steering servo. Loctite again when this assembly in place. But before this the main chassis frame is unstuck from the foam contents tray underside.

Rear chassis assembly bolts in place and front suspension holders are screwed in place. Front suspension arms which are tied together in their left and right hand pairs are fitted in place and the steering assembly goes in between them. The kingpin bushes click into the suspension arms and are duly secured with circlips. This all fits together very happily.

Once again note greasing

Threequarter rear view. Cooling fan removed and substantial heatsink added to engine. Hopefully the silencer supplied will be silent enough. Otherwise a pipe type can be fitted along rear chassis side



instructions. If front wheels are slipped on amount of toe-in can be judged and the tie-rod length adjusted and Loctited. Note the little springs which go on the centre shaft. These must be bent up when front suspension is in place to act against the lugs on the upper suspension arms. The stout front bumper screws into the ends of the main chassis. Note that the bodyshell will come over this and be hooked on and then secured with a single nut on the upper body frame holder. Rear wheels screwed in place and the buggy is now looking quite formidable.

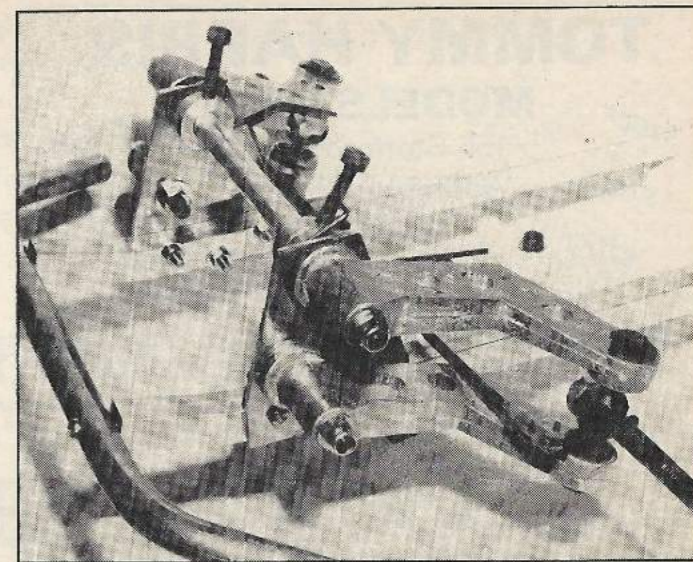
A radio box is provided and fits snugly across the main chassis with two screws securing it. There is plenty of room for the two servos, receiver and battery. With a fairly rough life before it I think these parts should be firmly fixed on a board that goes in the box, with as much foam padding as may be needed. Box lid can be secured with rubber bands, and a little lead out wire attached to the Rx on-off switch.

No fuel tank is supplied, but the suggested location of one blocks access of throttle servo to brake arm and throttle lever, so should be placed at one side. This spoils the neat elastic band attachment shown in a diagram, and a couple of holes should be drilled in the rear chassis frame to enable band hooks to be installed. If a metal tank is used (I fitted a plastic one) then a couple of attachment plates could be bent up and screwed in place for a rigid job.

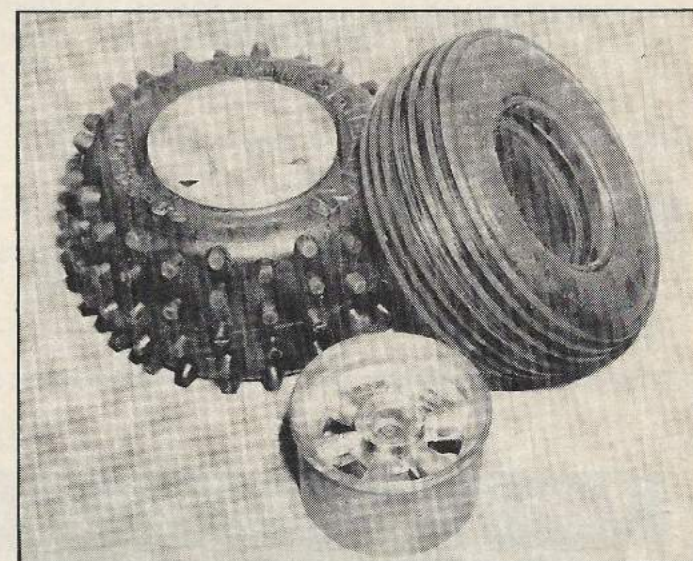
The usual fuel filter and air filter must more than ever be installed on an Off-road car.

The bodyshell presents no special problems. Good bright colours and away to the hills for tests.

▶ A general view of the front suspension



▶ Front and rear tyres and wheel hubs



▶ Another chassis shot. Fuel tank now in unobstructing place. This and other chassis shot and heading taken on grass to give idea of scale.



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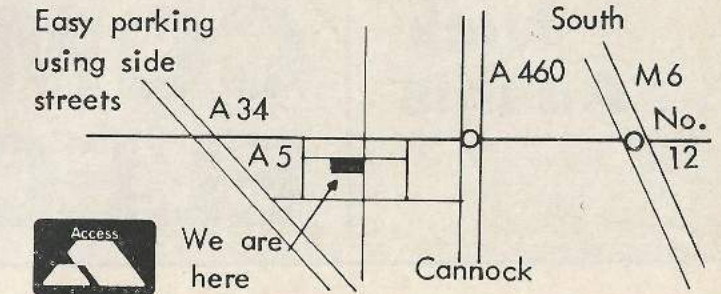
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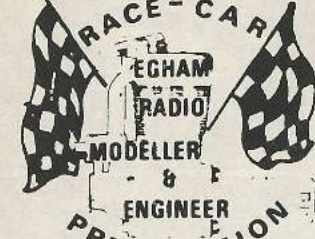


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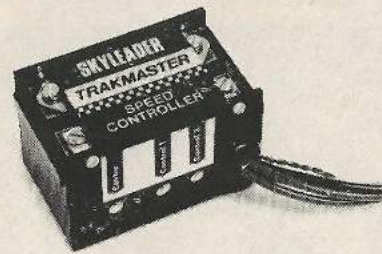
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COMPETITION ELECTRICS

THE NUMBER OF DIFFERENT MOTORS AVAILABLE for 1/12th electric cars is still growing, although many are very similar but produced under different trade names. The IGARASHI motor is available, especially from the USA, in apparently hundreds of different variations, and it is very difficult to find out exactly what state of tune the motors possess, although the price is always clearly marked.

I have selected the MRP series of motors to illustrate a typical rational range of motors; whereas other traders such as PARMA produce many more variations the differences are not so easy to explain. I could have selected others, such as BO-LINK, JEROBEE, ASSOCIATED and TRINITY, but none of these offer such an easily identifiable range as MRP. This especially applies to ASSOCIATED which never carry any information on their labels except REEDY MODIFIED, which refers to the fact that Mike Reedy of Associated has tuned the motor and that alone should be sufficient to induce you into giving up your money.

TRINITY motors were being used by several Europeans at the recent modified meeting in Switzerland, but their availability in this country is limited to specialist suppliers.

The 550

The photograph shows the entire range of MRP motors from the 550 to the later 554. As discussed in an earlier article, the 550 is the standard class legal motor and is completely unmodified direct from the Japanese factory. It has 35 turns of 23 gauge wire and will have production tolerance balancing which normally means no drillings of the armature. The commutator will also be trued and the armature windings varnished.

The 551

The 551 motor at present is almost identical to the 550 except it has a fine degree of balancing carried out on the armature, which means balance drilling will be present. I believe this motor is as supplied by the Japanese factory, although it is possible that blueprints could be made up and assembled in the States under the 551 number. It is also



Modified end bells showing dots which indicate double and single winds

possible that the 551 represents a selected and 'broken-in' motor from the 550 batch. However, of all the 551 motors I have seen, they have always been 35 turn 23 gauge and I believe they are acceptable in the USA for standard-class racing. However, in this country, their price of £9.50 exceeds the £7.50 maximum which means they cannot be used (although I have my suspicions that some competitors change the labels with a 550 and therefore cannot be detected even on a motor strip-down).

The Associated Reedy Selected motor, which is in the same category as the 551, is, I am informed, having its price reduced to £7.50 and so will become legal.

One final point about the 551 motor is that some people believe it to be either 32 turns or 35 turns of the thicker, 22 gauge wire, but I have never seen one of these variations and cannot discover any evidence of their existence.

The 552

Moving now to the 552 motor, the photograph shows the old label design

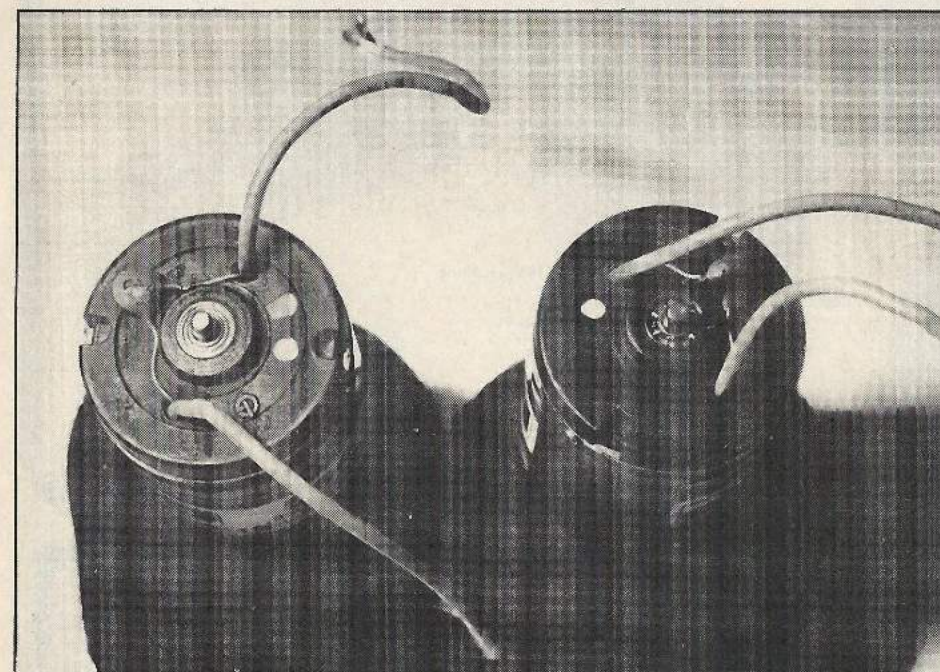
which has now been superseded by one of the new ones which proclaims, 'Factory Team Setup'. This motor is, in fact, a 32 turn of 23 gauge and once more is direct from the Japanese factory.

A useful performance gain over the 35 turn motor is available for a small extra cost, especially as this same motor is available as the PARMA PORSCHE for £9. However, although it is not legal for standard class racing, it offers an excellent choice for club racing, where the smaller venue restrains the expensive modified motors.

Again, this motor is offered as a 32 turn 22 gauge by some outlets, but all my examples have been 23 gauge, although I have had some of 33 turns. The ASTRO RACING SPECIAL red label motor is also a 33 turn 23 gauge, but is very well balanced and always seems to be a little better than the others in this range, but it is rather hard to find in this country.

The 553 and 554

We now come to the top-of-the-range



Timing marks show degree of advance.

motors, the 553 and 554, which are modified motors in many ways. As you can see, the 554 is a 4-cell version which is popular class in the USA, but almost entirely shunned in the rest of the world. However, this motor can be run on six cells with spectacular results, especially if race duration is not a problem.

The 553 motor is the motor for 6-cell cars and it is available with several different winds of the armature. Unfortunately, like a lot of the other motors, in this category, it is very hard to find out exactly what state of tune the motor is in, although the price rarely strays from the £27 - £30 region.

Originally, the 553 was available with only two winds identified by colour dots on the end bell. A single orange dot meant a single wind of what looks like 29 turns of 22½ gauge, whereas a blue dot and a green dot meant a double wind, probably 29 turns of 25/26 gauge. Different colours are now turning up, but two dots means a double wind, and I am keeping a lookout for three dots or more!

Armatures are not available separately from MRP but others such as

PARMA and TRINITY have a large range available. Luckily the armatures come with labels proclaiming their wind characteristics, so if you want to do comparison tests you will need to buy the armatures and mark them before they get muddled up. The most popular single winds are 28 to 30 turns of 22, 22½ or 23 gauge and for double winds again 28 to 30 turns of 24/26, 25/25 or 25/26.

The photograph of the two end bells shows the one and two dots previously mentioned, but also shows the two different ball races fitted in the motors. One is of open construction which more readily allows cleaning since even the shielded type seems to get the fine dust into it which can result in loss of performance. In the photograph, the silicone, flexible wire and small capacitor can also be seen, these both having been added by the tuner. The capacitor is normally a .05uf 10v. ceramic type and is supposed to help stop sparking and radio interference although I have never been able to notice any difference with or without them. The final point to notice is the lack of metal lugs in the two grooves,



Typical range of motors.

these being broken off to enable easy assembly and retiming.

The photograph to the side of the motor shows the timing marks and the screws necessary to hold the end bell in place.

Notice the close fit of the end bell, which is essential to prevent rocking and subsequent brush and bearing misalignment. The timing mark furthest from the screw is the original nominal position and the setting as shown represents quite a small advance, whereas some motors are advanced two or three times as far.

The view of the motor parts shows clearly the shunted brushes, as discussed in an earlier article. The Parma 'can' is in fact one sold specifically with zapped magnets.

Continuing the analysis of a modified motor, the ceramic magnets held within the steel can hold the key to motor performance, since without excellent strength magnets, the motor will never respond to the effort of tuning all the other parts.

The rules do not allow the magnets to be changed for better and more expensive types such as

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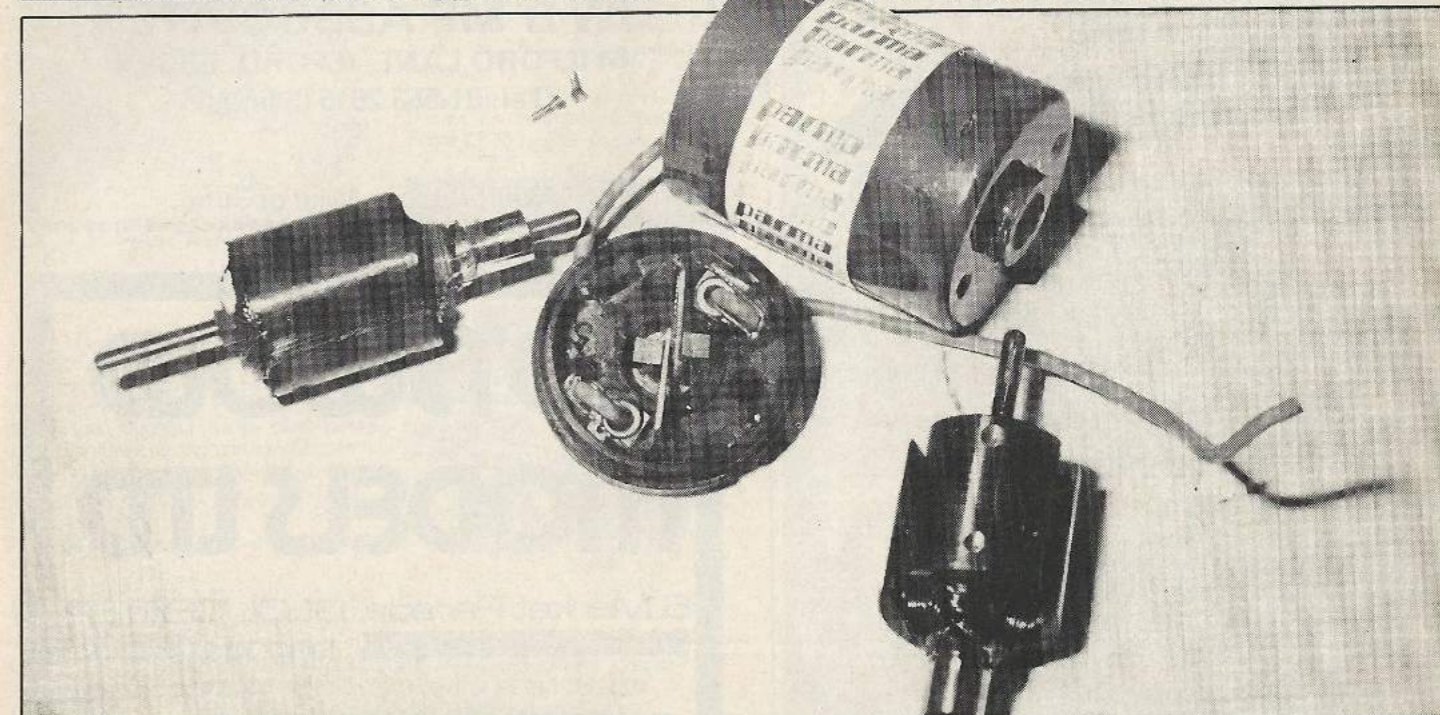
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COMPETITION ELECTRICS (cont'd)



Modified motor parts, illustrating shunted brushes, zapped can, shingle and double wound armatures

Cobalt-Samarium, but their strength can be increased by a process commonly known as 'zapping'. This can be done with or without the motor assembled, and results in an increase in magnetic strength. However, the magnets will tend to lose their magnetism with time and especially if heated and knocked around, such as during an arduous race. Cooling fins and attachments are being used a lot in the USA, but strangely, these are banned in this country for standard class. Zapping of magnets is also not allowed in standard class, although it is not possible to feel the commutation difference between an excellent standard motor and a re-zapped, poor example.

Tuners will improve the magnetic properties of the motor further by removing the internal metal securing clips and fixing the magnets in place. Holes drilled in the space between the magnets changes the flux density and the characteristics of the motor and these holes normally two of 1/16 in. diameter, also allow cooling by creating a fan effect with the armature. TRINITY motors have the holes, but a few others have been seen from PARMA. The SAGAMI motor has aluminium end bells at both ends and this results in a very unusual, no commutation feel.

In the photograph, the two modified armatures can be seen to be extremely neatly wound, which is essential for smooth operation. The tags holding the

wire to the commutator are normally soldered, with high-melting-point solder, for excellent contact, although some tuners weld these contacts. Binding of the wire behind the tags and then epoxy-coating all ensure that the windings and contacts never move.

One can only admire the careful work which goes into making a modified motor, but it still remains rather a mystery to a lot of racers why their £30 motor does not go any better than an off-the-shelf, cheap Mabuchi. The answer normally is the result of many

other things, such as gear ratio, nicads, weight of car etc. Nevertheless, it is true that sometimes motors just will not perform, and there is still a lot to learn about getting the maximum out of your motor.

At the time of writing, two important events have just taken place; these being the start of the modified outdoor meetings in Battersea Park, London, and the European Championship for Standard Class in Milan, Italy.

As far as I can determine, the results and motors were as follows:

RESULTS — MILAN — STANDARD CLASS. — DURATION — 8 mins.

Place	Name	Country	Laps	Time	Motor
1st	Neal Francis	GB	28	8.01.4	MRP 550
2	Bill Maisey	GB	28	8.11.9	PARMA RENAULT
3	Masnala	I	27	8.10.0	ASSOCIATED
4	Constantini	I	27	8.12.0	ASSOCIATED
5	George Land	GB	27	8.16.0	MRP 550
6	Daneu	I	26	8.05.5	ASSOCIATED
7	De Marchi	I	25	8.05.5	ASSOCIATED
8	Tony Wells	GB	-	-	MRP 550

RESULTS — BATTERSEA PARK — MODIFIED CLASS — DURATION — 6 mins.

1	Bill Maisey	23	5.58	IGARASHI, 33-turn
2	Steve Durrant	22	5.47	PARMA FERRARI
3	John Chamberlain	22	5.50	MRP 553 Orange
4	Neal Francis	22	5.53	Mabuchi Red end
5	Phil Greeno	21	5.54	MRP 554 red
6	Chris Sheldrake	21	5.59	PARMA FERRARI
7	Dave Tonge	21	6.00	PARMA VETTE 5
8	Geoff Peters	20	5.49	MRP 553 Orange.

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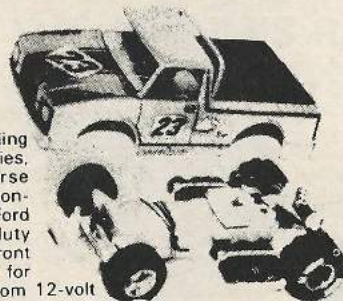
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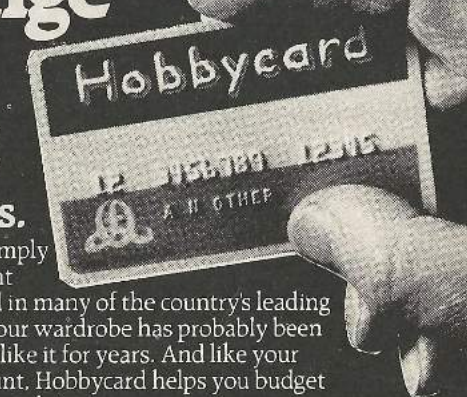
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Semi final start.

THE 1980 OPEN WORLD CHAMPIONSHIPS for 1/8 I.C. Stockcars

hosted by STOCKCAR RACING ENGLAND
18-19th October 1980
Report by Paul Dudley



Club badge.



Winners on the podium, sorry, chairs — but up in the world. Left to right: 2nd Ernst Aalders (NL) and mascot. Centre: Winner Bob Clayfield (GB) and right, Brian Sylvester 3rd (GB)

SATURDAY MORNING SAW AN EARLY START with the 4 drivers from Italy being first on the scene. Saturday had been allocated for practice so most of the 74 drivers who had entered the meeting were there sorting out tyres, engines and cars. The weather was dull but at least it was not raining. Drivers from all over England were arriving throughout the day, with the large Dutch entry from the four major clubs in Holland arriving at around 3.00 p.m. Practice ended at 5.30 p.m. with most drivers having set their cars up for the very grippy surface of the track.

The Saturday evening Disco/social in the local village hall gave everybody a chance to chat to old friends and make new ones, although some may have suffered on the following morning.

Sunday morning saw fairly good weather with drivers arriving bright and early. After a 1½ hour practice session for drivers who had not been able to attend on Saturday and with all the drivers booked in with one or two late entries, the transmitters were impounded and a short drivers' briefing explained all heats and qualifying procedure, with all this out of the way, the first set of heats was under way at about 10.45 a.m.

The heats were progressing very well with an average lap score of around 28-29 laps in 4 minutes when disaster struck-RAIN! At first only a few spots but it quickly became a downpour. This happened around heat 6 and drivers were now frantically choosing wet tyres hoping they had made the right choice. It was only in heat 8 that one person mastered the problem and finished with 34 laps in 4 minutes. That was Andy Digby of the new Lilford Stockcar Club, a lap score that no other driver was able to beat, thereby guaranteeing him a place in the finals.

Despite this, the average scores were between 30-33 laps and, with the first round of heats complete the rain still pouring down, it was decided to break for lunch with the hope that the rain would ease off a little. At the end of the lunch break the second round of heats began with still no let up with the rain. The drivers were all pushing their cars to the limit, with some very good times put in by Cliff Emms in heat 9 with 33 laps, Bob Clayfield in heat 11 with 33 laps, and 3 times World Champion Ernst Aalders from Holland with 31 laps.

It was now apparent that a score of 30+ was needed to qualify in the 27 places for the finals, the second round of heats finished a little later than planned due to the rain, at around 3.00p.m. A short break followed in which Alan Sowton the race Director worked the placings out for the top 27 drivers. The rain by now was beginning to ease a little.

After about 20 mins Alan emerged from the Control Caravan with the results. The top 3 drivers qualified

directly for the final with position 4 - 6 in the semi-final, position 7 - 9 in the quarter final. The next 18 drivers (positions 10-27) went through to 3 qualifying heats with the best 2 from each heat progressing to the 1/8th final. Drivers qualifying for the 1/8th final were: Miles Taylor (G.B.); Wilco Kel (N.L.); Keith Taylor (G.B.); Ron Bright (G.B.); Tony Bicknell (G.B.); Leslie Calder (G.B.).

The drivers in the 1/8th final drove very fast and it was only the first three places that would go on to the 1/4 final. By now the rain had stopped but the surface was still very slippery.

Miles Taylor, Keith Taylor and Ron Bright qualified from the 1/8th final and joined Paul Dudley, Brian Williams and Brian Sylvester in the all-British 1/4 final.

The 1/4 final was again very fast with drivers Paul Dudley, Brian Williams and Brian Sylvester all qualifying on the same lap with other drivers all fighting for places. The track by now was drying out and a very fast semi final looked very likely.



Cars and drivers line-up. The be-medalled panda — or is it a bear? — seen in the middle of the cars is the Dutch mascot

The line up for the semi-final was Martin Robinson (G.B.); Paul Dudley (G.B.); Brian Williams (G.B.); Brian Sylvester (G.B.); Ernst Aalders (N.L.); Dave Wragg (G.B.B.).

With all the drivers raring to go the marshalls lined the cars up to the start, the flag was dropped and all six cars sped into the first bend. By now the driving had become very close indeed with no driver giving an inch. Brian Williams was out in front with Brian Sylvester hard on his heels, closely followed by Ernst Aalders in third place. These positions remained the same at the close of the semi-final with Dave Wragg in 4th place just missing a place in the final and Paul Dudley finishing 5th and Martin Robinson in 6th place.

This left the race which everybody had been waiting for, the FINAL. Would Ernst Aalders from Holland retain his title for the 4th year, or would it be Bob Clayfield from the Leicester Club who, a few weeks before, had won the RSCA Championship Final. Could it be Brian Williams, from Stockcar Racing England, who came 3rd two weeks before in the European Championships, or Andy Digby from Lilford Club, the only driver who had managed 34 laps through the whole meeting. Maybe Brian Sylvester would pull out all the stops and beat his team mate Bob Clayfield, or even Cliff Emms from the Coventry Club whose very tight and fast style might just get him that first place. With this line up of drivers it could be anybody's race.

With any crystal changes now sorted out the drivers gave last minute tweaks to their cars and brought them up to the start line. With the cars lined up and raring to go the flag was dropped and all cars roared from the start line. It was a very exciting race with very close racing from Bob Clayfield and Brian Williams who for lap after lap remained

side by side. About three quarters of the way through the race Brian spun out a couple of times and dropped to 4th place letting Ernst Aalders and Brian Sylvester through. Cliff Emms was putting in a superb drive but could not gain any ground on the leaders. Andy Digby, whose car went so well in the qualifying heats, could not get it together for the final. The horn went for the end of the race with all drivers waiting to know their placings as they were all a little unsure who had won.

As a prize winning was to be held in the adjacent youth club all the results were kept secret and read out in reverse order. Before the main trophies were presented, every driver who had entered the meeting was presented

with a small trophy and a certificate of entry. With all these presented the top 15 places received their trophies in the following order:

- 15 Wilco Kel (N.L.)
- 14 Tony Bicknell (G.B.)
- 13 Leslie Calder (G.B.)
- 12 Miles Taylor (G.B.)
- 11 Ron Bright (G.B.)
- 10 Keith Taylor (G.B.)
- 9 Martin Robinson (G.B.)
- 8 Paul Dudley (G.B.)
- 7 Dave Wragg (G.B.)
- 6 Andy Digby (G.B.)
- 5 Cliff Emms (G.B.)
- 4 Brian Williams (G.B.)
- 3 Brian Sylvester (G.B.)
- 2 Ernst Aalders (N.L.)
- 1 Bob Clayfield (G.B.)

Stockcar Racing England

Fixture List 1981 1/8 I/C Stockcars

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June 7th	Sre Open	
21st	Club Championship Round 5	2.00pm start
July *5th	British Grand Prix (Open)	
19th	SRE Open	
August *2nd	European Championships (EMSA Rules apply)	
	(Venue to be confirmed)	
16th	Club Championship round 6	
*30th	Worthing Fiesta	
September 13th	SRE Open	
27th	Club Championship round 7	
October *4th	World Final (EMSA rules apply)	
	(Hosted by Stockcar Racing Holland venue to be confirmed)	
11th	SRE Club championship final	
December 20th	SRE Open	1.00pm start
	All drivers are requested to book in at race control at least 1 hour before starting time.	

*Start times will be confirmed at a later date. Anyone requiring more information about any of the above meetings please contact the Secretary Paul Dudley on 0789 762519 daytime or 05643 2809 evening.

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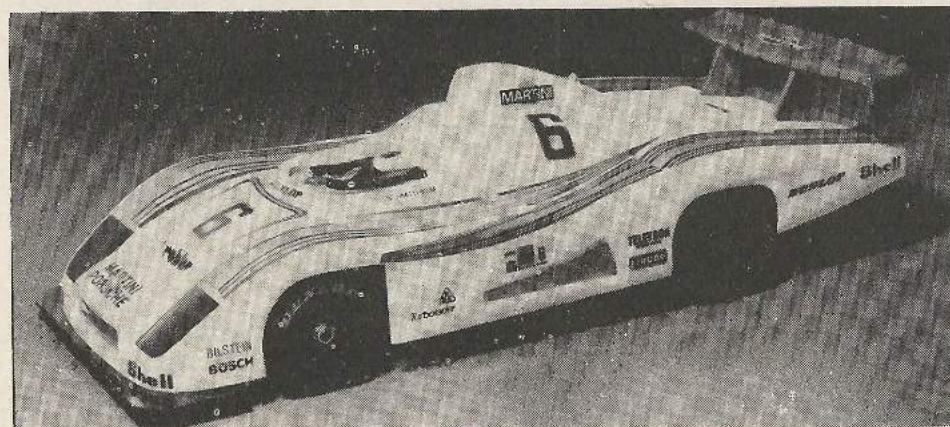
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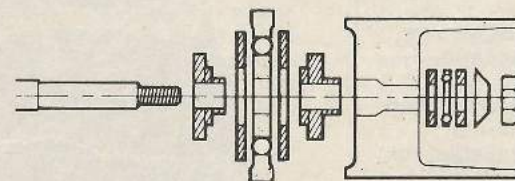
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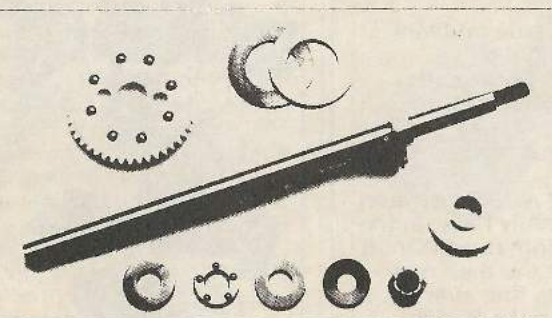


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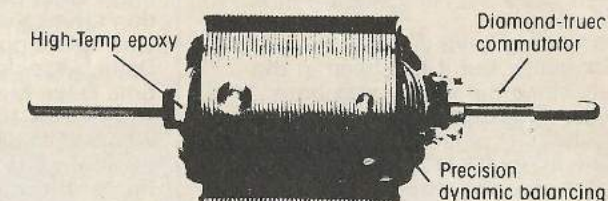
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Profile

PHIL GREENO

VERY FEW R/C MODEL CAR ENTHUSIASTS can never have heard of Phil Greeno. At some time or other in their activities they will have 'phoned the shop (bright Green decor as might be expected) for some hard-to-get item, or grabbed a few minutes helpful advice for free. If they are top drivers then they will certainly have conceded to him the winner's circle at the track, or beaten him to make a bull point at the next club social occasion. Which also goes for a great many 'aces' all over Europe, for Phil has consistently shown the flag with the Continental Circus of recent years... So I went along, after making a suitable 'slack time' appointment to find the Maestro, as requested, festooned in some of the nearly 300 cups and trophies he had won in his sporting career. Here is our chat:

Dickie: How long have you been modelling Phil?

Phil: I started making models when I was about 4½ years old with balsa chuck gliders. Then I bought my first ever kit in 1954 — it was a KeilKraft Hurricane 3/6 old money (17½p)

D: So that makes you what nowadays — 30

P: 33

D: How long have you had the shop?

P: Six years, but it has been in the family since the week I was born

D: What first triggered off your interest in r/c cars?

P: One of my friends brought an r/c car into the shop; it appealed so much that the next day off several of us went down to Ted Longshaw's showroom in Kent, brought back a load of stuff, and since then we've never looked back.

D: First of all you were interested in pylon racing weren't you?

P: The first competitive modelling I did was slope soaring. In '70/71 I went to meetings at The Long Man, Wilmington, Eastbourne, Clwydd, Mendip Ivinghoe, and over to Germany to fly at the Wasserkuppe with thermal gliders.

D: But no radio control at this stage?

P: This was all r/c. I started in '63 with a single channel — the first radio I ever had was a valve Rx from MacGregor then I bought a Mini Reptone and lost loads of models out of the park... then followed a break of about six years when I had girl friends, motorcycles, cars and things.

D: Cars now — do you like going fast? Fullsize?

P: Yes, I must say, I do get a certain thrill in the right conditions?

D: Still Porsche-ing?

P: Yes: I've got a new Porsche — a 924 Carrera GT limited edition Turbo.

D: And that reflects your philosophy does it?

P: Well, it's nice to have nice things if you've worked hard and can afford them

D: Worked hard? ... Seven days a week?

P: Almost... yes, I would say certainly seven days a week.

D: What do you reckon it costs you, in, say, the Continental Circus? I remember you once saying you could almost afford to run a rally car on what you were spending.

P: I suppose it must cost at least £3,000 a year in travelling, car spares for our cars and so on.

D: Coming to your model car, you've been a PB man most of your time, haven't you?

P: Yes. I started off with an Associated RC100. At that time, 1976, the PB International was not yet available, the only PB car being the PB Expert, which I don't think Keith would mind me saying was not as good a car as an equivalent Delta, Associated or Marker. At that time Dave Martin was doing very well with the RC100 and chose it too, but I went on to the International at the beginning of 1977 and had one of the first of the kits.

D: But you consistently improved it — or shall I say put go-faster goodies on it...

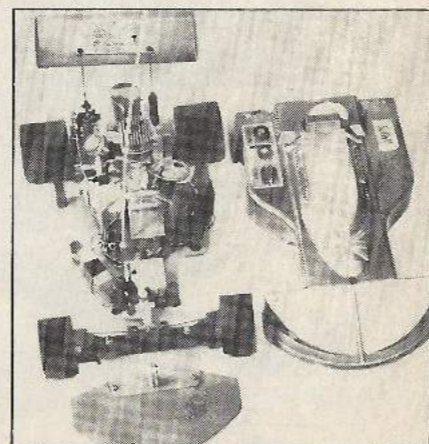
P: We did go through such a stage... yes... fitting differentials... power plus mufflers and so on and changing the chassis... yes, different brakes, ballrace... we did consistently improve it.

D: When did your interest move over to include 1/12th?

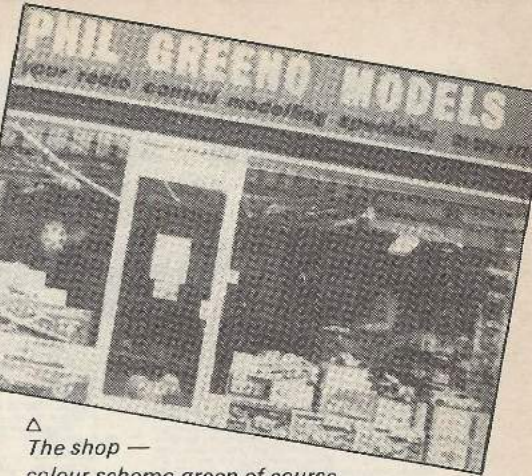
P: I started racing 1/12 at the very start of racing in England at Ally Pally. In the winter of 76/77 Dave Rogers and Doug Blair of Enfield bought the then new Lectricar which was the first ever electric car available on the British market. They rented a hall at Ally Pally for an evening and invited a number of people along of whom I was one. I got a kit together in the shop and went along.



Moment of triumph! Phil receives first Monaco World Cup 1978. Seconds later he was in the swimming pool just to remind him not to forget the day. (Photo: Photo World)



The winning Monaco car. A number of replicas were sold during the following year and later



△ The shop — colour scheme green of course.

◁ Phil at the till — surrounded by some of the three hundred or thereabouts trophies, cups, plaques he has won over the past five years.

We had a hilarious evening with cars that didn't handle — no cars did in those days! — and that's how it started. right through 1977 I stuck with Ally Pally and enjoyed it a lot. I think I was one of the very first people ever to run a Bo-Link car in this country. After that first outing at Ally Pally I thought there must be something better available. After reading Larry Hubbert's *Racing Circuits* newspaper report of the US Nationals wond by Gary Kyes with a Bo-Link base, Electrocraft and Jerobee chassis I got one from Ted Longshaw...

D: You sold me the very same car set-up, which I still have and it still goes...

P: I immediately began to win every meeting... carried on with it for the next two years... didn't do much then until the end of '79 when I came back and designed the Gemini, when electric racing had got bigger. With more national meetings I started to get interested again.

D: Did you have any sort of technical training?

P: Yes, I went to technical college when I was training to be a structural engineer and did my ONC and HNC. For 10 years I worked in a drawing office as a structural draughtsman.

D: What would you say was your most satisfactory win?

P: Undoubtedly Monaco! At that time it was a very prestigious competition and I was trying to do well in model car racing as an up-and-coming whizz kid. Like Bob Errington was a year or so ago. I had a car with a lot of parts in it which I had made myself. I think I am right in saying that the works driver for Mantua and I were the only drivers running OPS engines there, everyone else was on K and Bs including all the Americans... I had one of the fastest engines by quite a considerable margin and we were also developing the AMPS differential. I was working with Ian (Agnew of AMPS) for three months to win what was a very long 45-minute race without any mechanical problems. I won it easily by seven laps... It was a good team with Ian and Martin Samuel as mechanics; I drove well, and it was very satisfying to

win such an event. Ever since it has been hard work... Monaco in 1980 was far harder for me — I came third — but to get in the final was much more difficult than it had been two years before.

D: What about the radio side? Do you keep to Futaba or have you moved around?

P: I used Futaba for the first 2½ years because it was the only thing that was readily available and suitable. In 1979 MacGregors imported the new JR FM from Japan (JR stands for Japan Radio); it was the first 2-channel FM which was really custom made for cars. It had a rate switch for steering, variable throttle control, ballraced servos and of course it was FM. I've used it ever since.

D: I believe I've seen you changing your servos before a final?

P: I must admit it did happen at one stage, though now I don't think we need to...

D: What did you do with the old ones?

P: I used to sell 'em off in the shop 'one careful owner never been raced or rallied'...

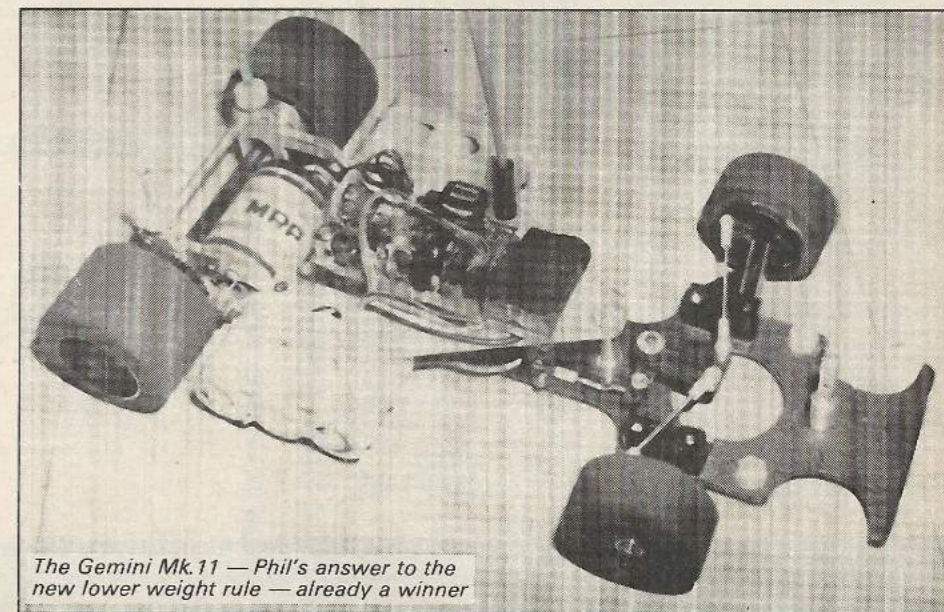
D: We ought to touch on who helps you

in the shop... I believe your Mother does the accounts and keeps you from breaking the law etc...

P: That's right. Then Robin Ellis handles the trade orders, Russell here is working in the shop, and of course Nick Adams makes the Demon speed controllers... about 100 a month.

It is very much more than just the shop now. We've 45/50 trade accounts to service in the UK supplying a full range of lexan bodies, 1/12 car kits. I distribute MRP in England, MRP motors, nicads, bodies, clear and painted, 1/8th tyres, 1/8th bodies and the items I manufacture. Jeff Page across the road has a workshop doing almost 100% work for me. Nick, too works almost fulltime on the Demon speed controllers in its two versions D1 and D2 and now the new Demon DM3 which has a full power relay. We have sold nearly 1000 units in all over the past 12 months...

D: Thanks Phil. A great story, I'm sure a lot of our readers will be inspired to try and do likewise...



The Gemini Mk.11 — Phil's answer to the new lower weight rule — already a winner