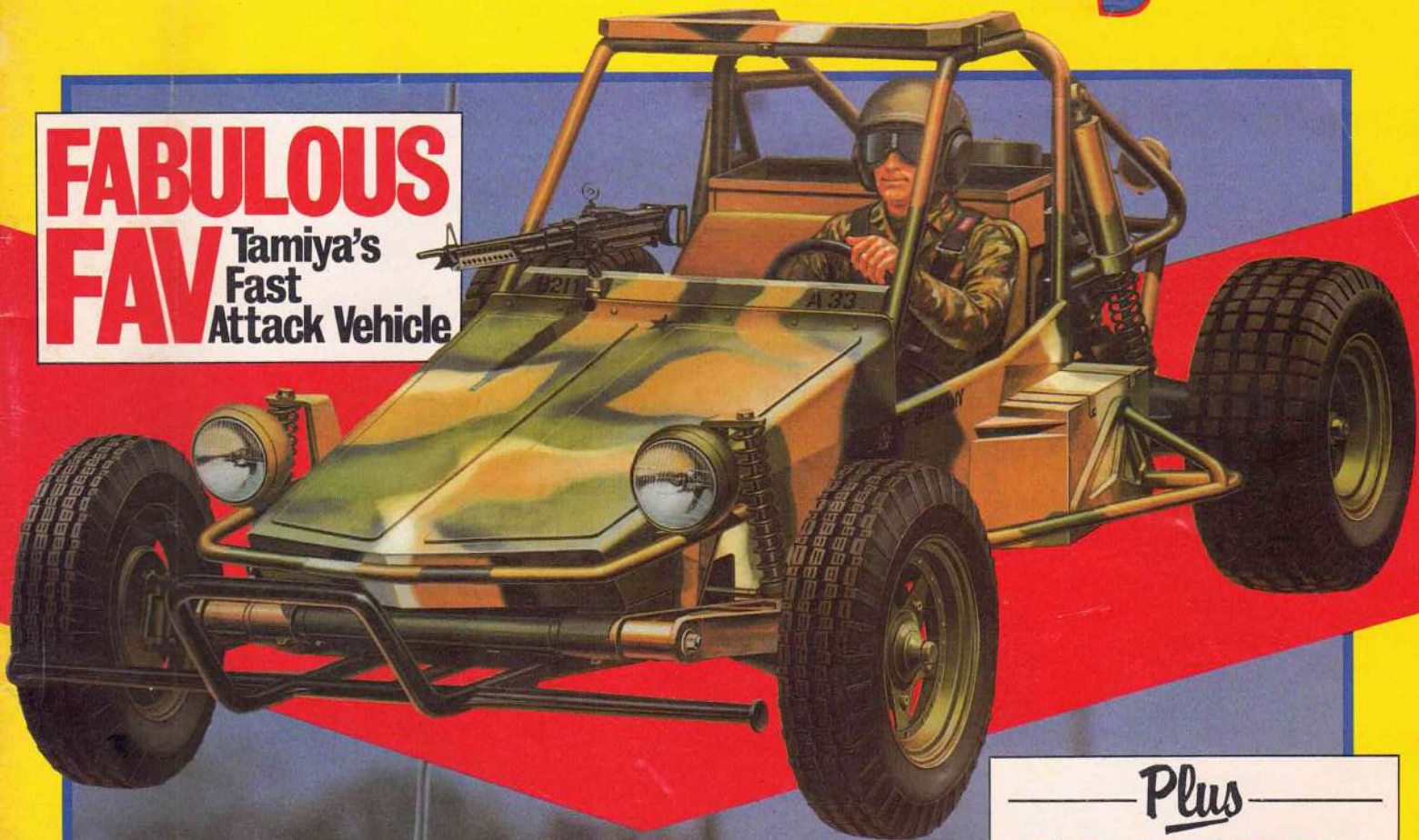


Model CARS Monthly

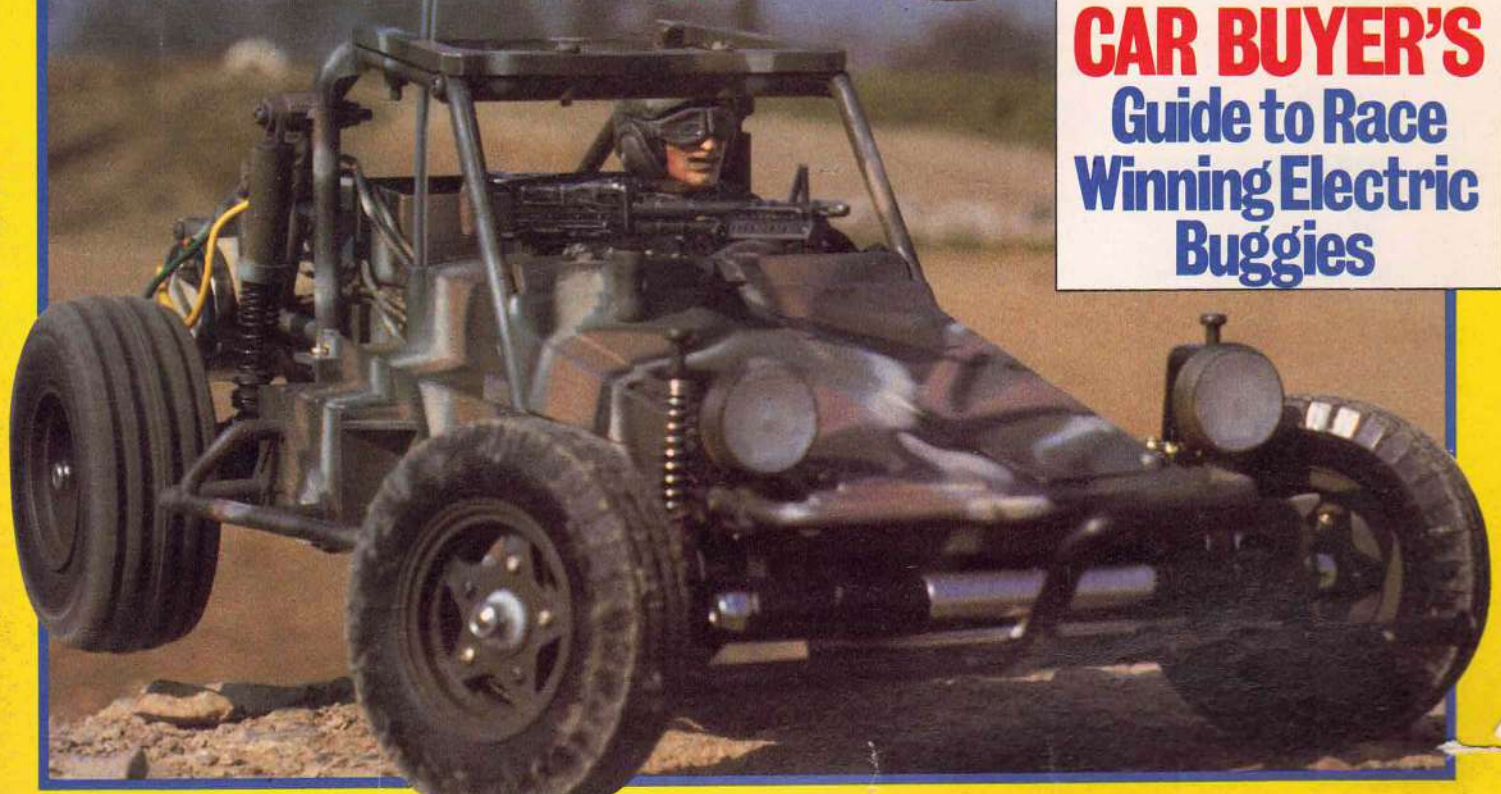


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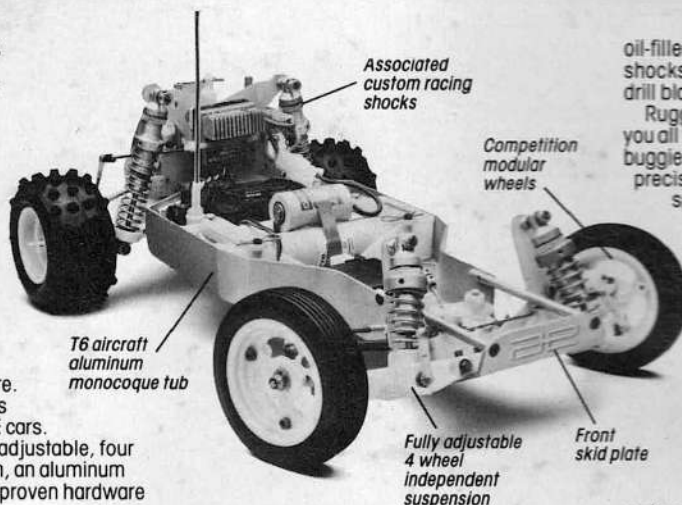
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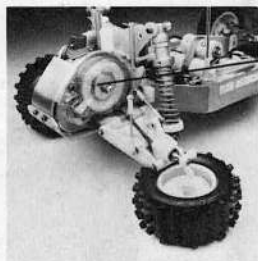
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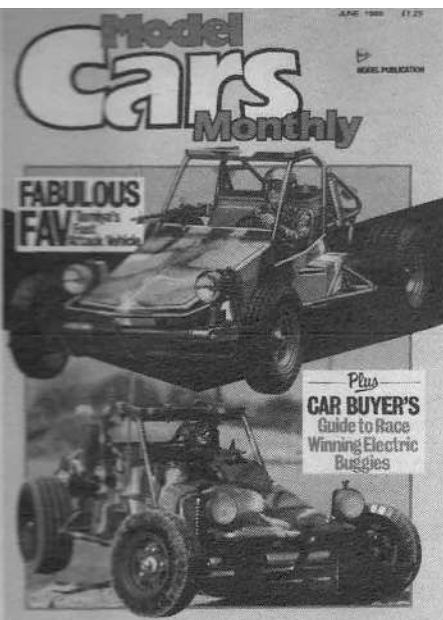
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Cover
Two views of the Tamiya 'Fast Attack Vehicle' adorn our front page: one from the impressive box art and the other of the kit car taken by Manny Cefai. The camouflage colour scheme was produced by 'Military Modelling' Editor, Ken Jones.

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Model Cars Monthly

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Editorial

Modifying, scratchbuilding, customising, these are all practices that R/C model car racers have indulged in for as long as there has been racing. The reasons why drivers seem keen (if not anxious) to change their expensive, kit-built machines is anyone's guess. After all has not the kit manufacturer spent time and money designing, developing and testing to make sure the product is right? Obviously not judging by the amount of 'butchery' that is in evidence on a great many cars.

Why change? Just to be different? An attempt to increase the performance of the standard model or change the handling? Whatever the reason it's all part of the game and R/C model car racing is all the more interesting for it.

This issue carries another feature from Roy Yuval on modifications to the Tamiya 'Frog' plus a look at some changes to a reader's 4WD electric buggy.

Hopefully we will bring you more 'Custom Built' articles in the future with of course your help.



Model & Allied Publications

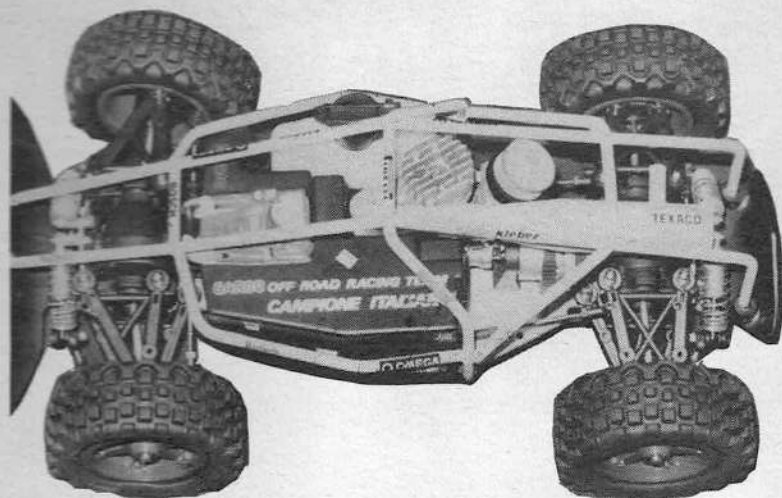
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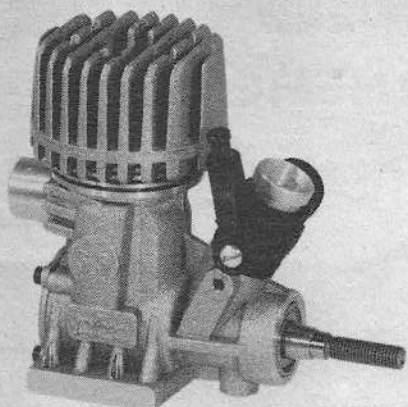
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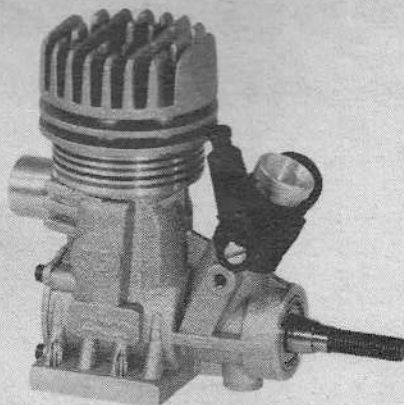
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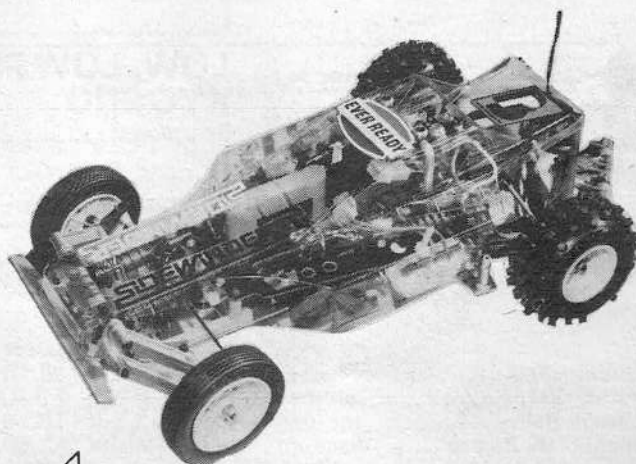
NOVAX4

then it probably doesn't have most (or even all) of the above, vitally important, features. It will pay you to consider very carefully before you make a hasty and expensive mistake.

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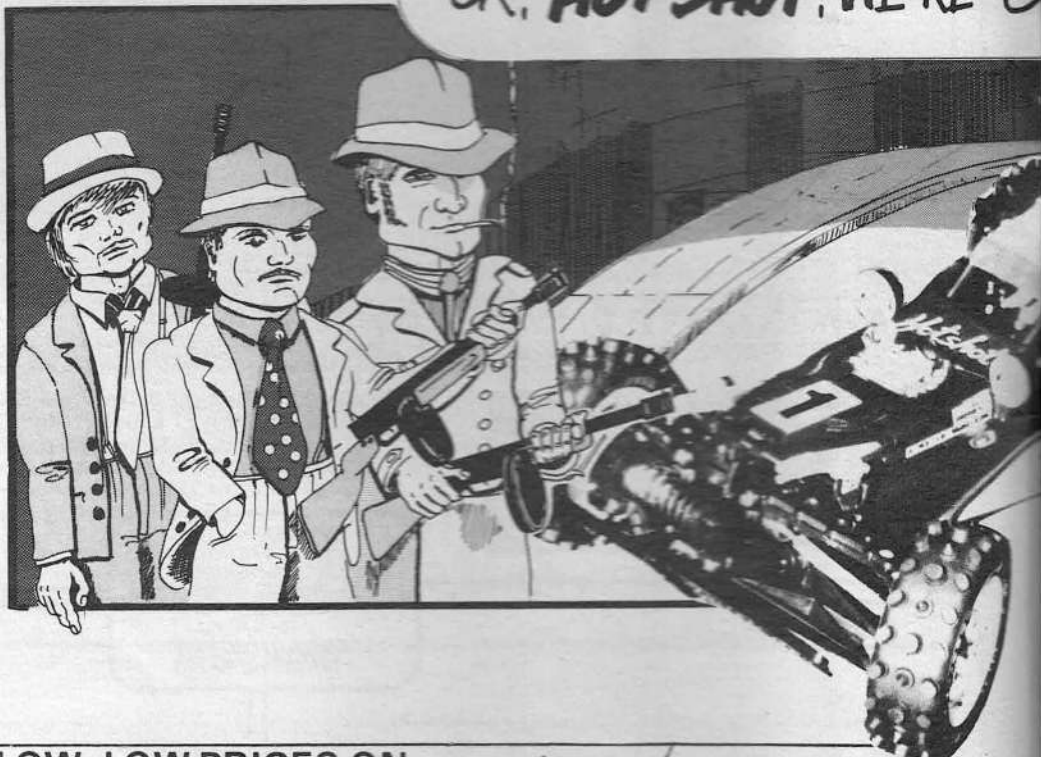
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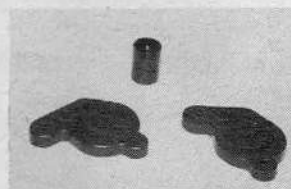
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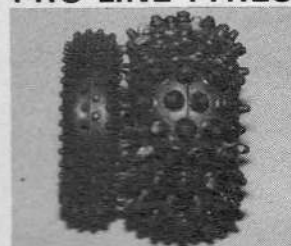
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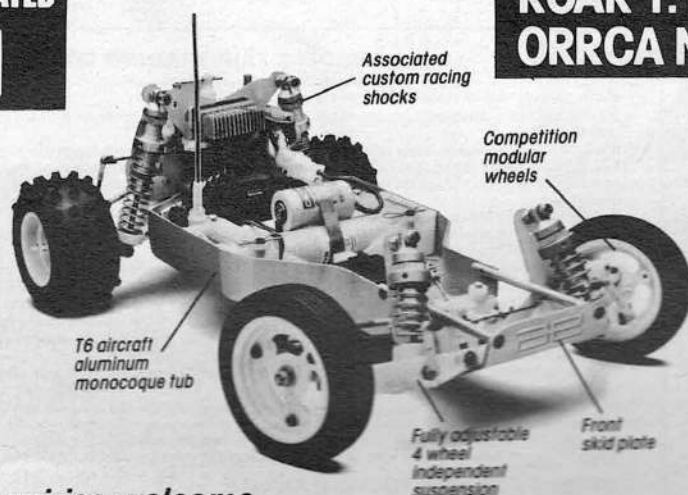
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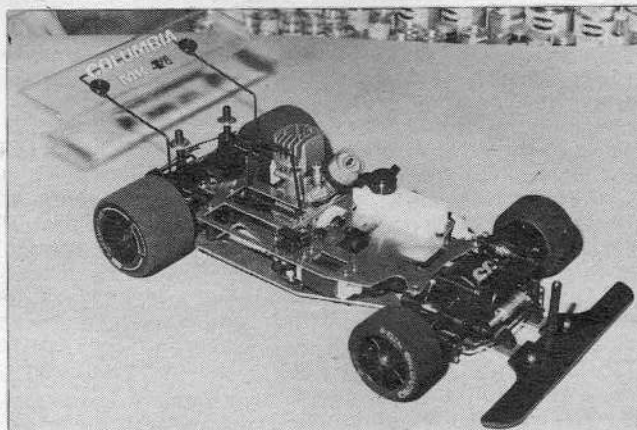


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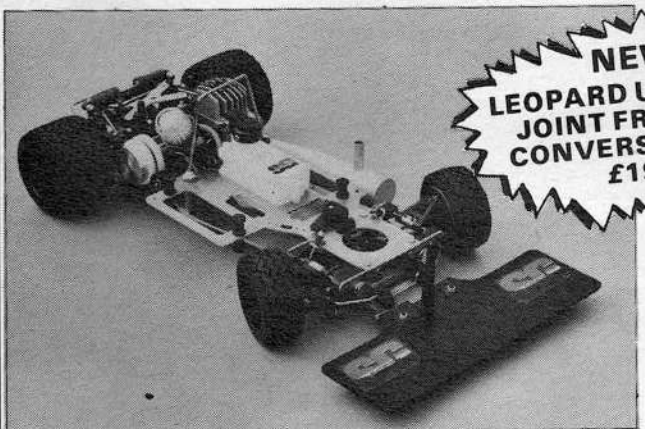


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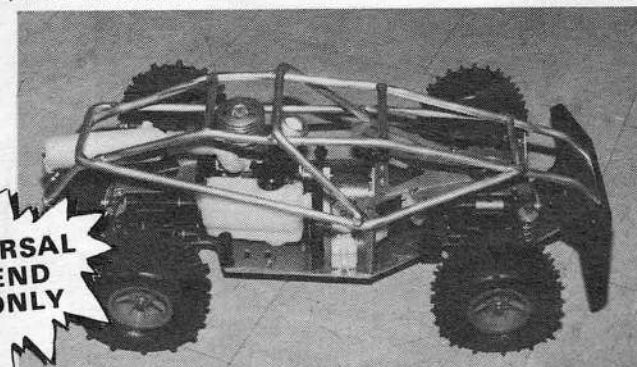
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Seen & Heard

Big Car Racing

Boy, do we mean BIG!

Proposals have been made to the world governing body for R/C Car racing for the adoption of a racing class covering 1/4 (yes one quarter of full-size) and 1/5th or 1/6th scale cars.

In the USA 1/4 scale R/C car racing is proving to be most popular with at least two manufacturers producing kits. Even here in the U.K. we have seen prototype 1/5th scale cars made by *Phil Ramsey Engineering* with a view to kit production.

Obviously Big Car Racing is going to be a whole different ball-game to the usual types. Different (larger) engine sizes, larger tracks and pulse racing speeds.

'Model Cars' will be bringing you more details on Big Car Racing in future issues.

WHOOOPS

Yet another mistake (well at least we own up to them). In last month's Nuremburg Car Show report we made passing mention of a 1/4 scale motorbike produced by *Kyosho*. Well, although this model appeared on the *Graupner* stand alongside various *Kyosho* products it is not made by them but originates from a European manufacturer of unknown origin (we're still trying to find out). So don't ask us where you can get it and certainly don't ask *Ripmax Models* who import *Kyosho* Products.

Sandown Park '85

The 10th World famous Sandown Model Symposium Exhibition and display, takes place on May 11/12th this year.

Once again the organisers, *Elmbridge Model Club* are presenting the event at *Sandown Park Racecourse*, Esher, Surrey.

Trade stands and model displays form the backbone of the event and include R/C Car displays from *Richard Kohnstam (Tamiya)*, *Amerang (Marui)* and the *MacGregor Display Team*.

Aerobatic flying from World Champion *Hanno Prettnner* and Helicopter flying from the Japanese *Kalt* team head the attractions list.

Details and enquiries from *G. Hazelwood*, 46 Wrens Avenue, Ashford, Middx. Enclose SAE for reply Tel: Ashford 43022.

Below: a quarter scale 'Sprint Car' exhibited at the Toledo R/C Show. The car behind it is 1/12th scale so you can get some idea of the size. Below centre: this particular car is fitted with a *Webra .91* four stroke motor and fibreglass bodyshell.

In my view

WHEN DEALING WITH competition based model race cars the one question that is regularly thrust at me down the telephone or through the post is...

"What's the best car?", or

"Which is better, Car A or Car B?"

You'd think by now that I would know the answer but I'll be honest; I don't. What's more I don't think anyone else does either. Sure, you'll always get the local expert who will tell you exactly what car is best, but does he really know? No way!

At the competition end of the market the cars are so closely matched in performance and handling that racing success is virtually dependant upon one factor — the driver.

"Models Cars" often gets taken to task for not producing comparison tests between different makes of cars. The sort of thing I mean is; Car A was faster than Car B. Or Car A has better damping than Car B.

As a criticism it is perfectly valid. There are no comparison tests. The reason why is simple — it's not possible.

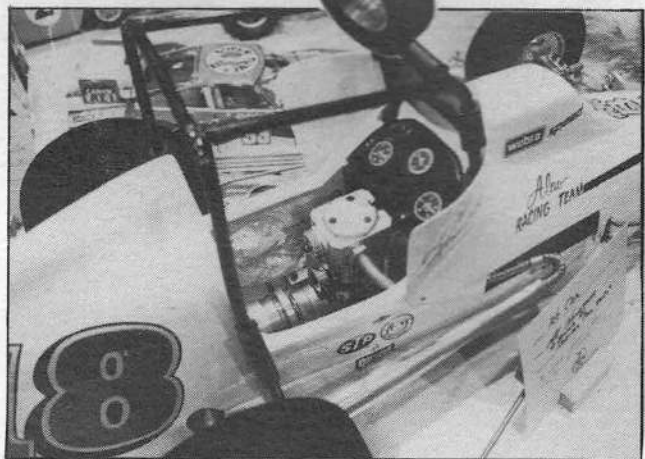
Think about it; there are too many factors involved, driver skill (the largest), track characteristics, motors, tyres and the power source (Ni-Cads, fuel). Unfortunately it is impossible to simulate identical test circumstances between cars so that it could be said — Car A is best.

Even race results are misleading. So much can happen in the A-Final that actually winning it is more a question of happenstance (good start-no shunts) than chassis superiority.

Obviously a good car will compliment a good driver but once again the human factor is dominant and pure driver skill will always come out tops.

The only recourse left open to 'Model Cars' is to say how the kits match up in terms of instructions, ease of assembly, setting up and how the car performed straight from the box. 'Model Cars' does this. The rest is up to you.

Lewis Eckett



Right: a copy of an American advert promoting PaceSetter Products quarter scale R/C Sprint Car. This model features fully adjustable front suspension (solid rear axle) a quick change gearbox and claims speeds of 50-60mph. All for 400 US dollars.

IT'S BIG

The PaceSetter 1/4 Scale Radio Controlled Sprint Car!



Contest Calendar

MAY 12

1/10TH BUGGIES

Donisthorpe M.W.M.C.C. Staffs, Midland Championships.
BRCA Rules. 540, 380 Std Class. SAE to: Roy Statham,
5 School Street, Oakthorpe, Burton-on-Trent DE12 7RE.
Tel: (0530) 71285

MAY 11/12

1/8TH CIRCUIT

BRCA National Championship, Round 3
Aldershot, Badshot Lea, Hants.
Formula, Sports/GT.

MAY 12

1/10TH BUGGIES

Tamiya Off-Road Championship, Sandown Park Model Show, Surrey.
S.A.E. to: CRS Promotions, 63 Wantage Road, Northants, Northampton.
Tel: (0604) 844943

MAY 12

1/8TH OFF-ROAD

BRCA National Championship, Round 5 Bicester, Oxon.
Restricted and Unrestricted Class.
S.A.E. to: Alec Hudson, Howes Model Shop, 9-10 Broad Street,
Oxford OX1 3AJ.

MAY 18

1/12TH CIRCUIT

Vauxhall Motors RCC, Vauxhall Motors, Luton, Beds.
Tel: Keith Helmke (0582) 864420

MAY 19

1/12TH CIRCUIT

Stafford Mini-National Series, GEC Styckfields, Staffs.
Tel: J. Robson (0785) 662242

MAY 19

1/8TH CIRCUIT

East Midlands League, Round 3, Lilford Park, Northants.
Saloon Class.

MAY 19

1/10TH BUGGIES

Tamiya Off-Road Championship.
Three Magpies Buggy Club, Rotherham.
S.A.E. to: Kevin Creaser, 10 Chatsworth Rise, Brimsworth, Rotherham,
Yorks. Tel: (0709) 66217 after 7 p.m.

MAY 19

1/10TH BUGGIES

BRCA/Ever Ready Series, Round 2. Scarborough R.C.M.C.
Std. & Mod. A-Z Finals. Fee £3.50.
S.A.E. to: Dave Webb, 60 Newlands Park Grove, Scarborough,
N. Yorks. Tel: (0723) 366442

MAY 24

1/10TH BUGGIES

Northern League, Round 3, Whitefield, Gtr. Manchester.
S.A.E. to: Kevin Blears, 90 Deans Road, Swinton, Manchester.
Tel: 051-793-9188

MAY 25

1/12TH CIRCUIT

Ally Pally Carpet League, Woodside Leisure Centre, Garston, Watford.
Mod. Class. A-Z Finals. Tel: Nick Adams, 01-866 5945

MAY 25/26

1/12TH CIRCUIT

BRCA National Championship, Round 3, Chesterfield, Derbyshire.
Std./Mod. Classes. A-Z Finals.
S.A.E. to: Sheila Goodyear, 40 Twickenham Crescent, Halfway,
Sheffield S19 5HS. Tel: (0742) 483112

MAY 26

1/10TH BUGGIES

Tamiya Off-Road Championship, Southend Estuary Gala,
Southend, Essex.
S.A.E. to: John Newton, 4 Aylesbeare, 4 Thorpe Bay, Southend-on-Sea,
Essex. Tel: (0702) 585770

MAY 26

1/8TH CIRCUIT

London Sports Car Championships, Round 3,
Crystal Palace National Rec. Centre, London.
Tel: John Daniels, 01-656-9904

MAY 25/26/27

1/8TH CIRCUIT

BRCA National Championship, Round 4,
Aberdeen, Minerwall Park, Scotland.
Saloon, Formula, Sports/GT.

MAY 26

1/10TH BUGGIES

Scottish Off-Road National Championships, Round 2.
Newton Stewart, BRCA Std. Class Rules.
SAE to, Jimmy Stewart, 1 Catherinefield Ind. Est., Heathall, Dumfries.
Tel: (0387) 52572

MAY 27

1/10 BUGGIES

Sussex Radio Auto Club. Standard Class Open Meeting. BRCA Rules.
SAE to, R. P. Finch, 24 Mill Hill, Shoreham-by-Sea, Sussex BN4 5TM.

MAY 27

1/10TH BUGGIES

Southend Radio Control Car Club.
Open Meeting + Tamiya National Championship Round. BRCA Rules.
SAE to, John Newton, 4 Aylesbeare, Thorpe Bay, Southend-on-Sea,
Essex SS3 8AE. Tel: (0702) 585770.

JUNE 1

1/12TH CIRCUIT

Vauxhall Motors League. Mod. Class. A-Z Finals.
Tel: Keith Helmke (0582) 864420

JUNE 2

1/10TH BUGGIES

Bell Fruit Rally Cross Champs, Round 3.
Norwich Rough Riders, Norfolk. BRCA Rules.
540 Class. Fee £2.00.
SAE to, Graham Crisp, 70 Hillcrest Avenue, Toftwood, East Dereham,
Norfolk NR19 1LP. Tel: (0362) 67538.

JUNE 2

1/8TH CIRCUIT

East Midlands PB League, Round 4.
Tibshelf, Sports/GT Class.
SAE to, R. Heffer, 24 Back Lane, Tibshelf, Derbys, DE5 5LN.
Tel: (0773) 872805

JUNE 2

1/10TH BUGGIES

Radio Race Car Round 4 Worlds End O.R.C. Northants.
SAE to, CRS Promotions, 63 Wantage Road, Northampton, Northants.
Tel: (0604) 844943.

JUNE 8/9

1/8TH CIRCUIT

West Burton, MCC, BRCA National Championship.
Round 4. Formula and Sports/GT Class.

JUNE 8/9

1/10TH BUGGIES/1/8TH OFF-ROAD 4WD ONLY

Offord & District Racing Circuit.
6th Annual Wrotham Classic '85 for Vintage Cars, Wrotham Hilltop (A20),
Wrotham, Kent. Entry fee per day/class, £4.00.
SAE to, Race Director, 'Byelanes', Blacksole Lane, Wrotham, Kent.
Tel: (0732) 882176.

JUNE 9

1/10TH BUGGIES

Northern League, Round 4. Liverpool MCRC.
SAE to, Steve Newey, 15 Patricia Grove, Bootle, Merseyside.
Tel: 051-022-0668.

JUNE 15

1/10TH BUGGIES

Donisthorpe M.W.M.C.C. Staffs. 'Donisthorpe Nationals'.
540, 380 Std. BRCA Rules.
SAE to, Roy Statham, 5 School Street, Oakthorpe, Burton-on-Trent DE12
7RE. Tel: (0530) 71285.

JUNE 15

1/10TH BUGGIES

Tamiya Off-Road Championship, Donisthorpe Open Day, Leicestershire.
SAE to, Richard Robertson, 1, 2 & 3 Garfield Terrace, Broughton Road,
Stoney Stanton, Leics. Tel: (045527) 2093.

JUNE 16

1/10TH BUGGIES

Tamiya Off-Road Championship.
Bromley Motoring Pageant, Bromley, Kent.
SAE to, Jim Paffett, 124 Chestnut Avenue, West Wickham, Kent.
Tel: 01-462-4866.

JUNE 23

1/12TH CIRCUIT

Stafford Mini-Nationals Series.
GEC Styckfields, Stafford. Tel: John Robson (0785) 662242.

JUNE 30

1/8TH CIRCUIT

East Midlands PB League, Round 5, Wrexham.
Sports/GT Class.
SAE to, C. Meyer, 28 Lllys-y-Wern, Sychoyn, Mold, N. Wales CH7 6UJ.
Tel: (0352) 59902.

JUNE 30

1/10TH BUGGIES

Northern League, Round 5. Dumfries MCC.
SAE to, Jimmy Hamilton, 2 Heritage Drive, Dumfries DG2 7QF.
Tel: (0387) 52572.

Letters

Letters to the Editor are published on the understanding that views expressed are not necessarily those of the Editorial Staff or publishers of Model Cars magazine. All correspondence requiring a reply should be accompanied by a stamped addressed envelope.

Your chance to reply, question, criticise and inform on all aspects of model car racing

All together

Dear Sir,

It would seem that my comments in the March issue concerning separate racing classes for 2WD and 4WD cars has stirred up a veritable hornets nest. With this in mind I feel I must make my opinion known.

I fully agree with the view that the two types of car should be raced together for the time being and that we should stick with one class of racing for this year at least. Providing we are racing on grass surfaces all things should be fairly equal. The 4WD cars are much faster around the corners but the 2WD cars generally have better acceleration and higher top speed. However, on a low grip surface the 4WD car will come into it's own e.g. gravel, mud or just a bare surface when the grass has worn away.

Also I believe the 4WD will be better for 7 cell racing as the 2WD will suffer from acute understeer and wheelspin.

If a manufacturer were to produce a better 4WD car with less power loss through the drive gear, lightweight, and excellent suspension I bet that car will take over as number one, but until it does I'd say things are wide open at the moment.

At the present time, I'm playing about with a Kyosho 'Progress' it's as fast as a 'Scorpion' in a straight line, corners faster but the rear suspension isn't so good on our very bumpy track.

The BRCA race meeting at Eden Park (7th April) should give us a good idea of the things to come. I know there are some well sorted Hirobo's down that

way. I'll be racing at that meeting myself, probably with a two-wheel drive car, but you never know.
Steve Newey,
Liverpool

Blue Peter Buggy

Dear Sir,

Could you please tell me how much the petrol driven buggy cost which was featured on 'Blue Peter' a few months back. Could you also tell me where they are available from.
John Kelly,
Stirling, Scotland.

The car that was being used on the 'Blue Peter' programme was the Serpent 'Cobra' 4WD buggy. This car is quite expensive (around £500 ready to go) and can be bought from Elite Models, 145 Newgate Lane, Mansfield, Notts. NG18 2QD.

Beetlemania

Dear Sir,

I note on the cover of the March issue, illustrations of two model 'Beetles' however the inset picture, entitled 'Herbie', was not identified anywhere in the magazine.

If this unidentified stranger is a standard model can you possibly tell me who can supply it as it is exactly what I have been looking for.
Ronald McKune,
Edinburgh, Scotland.

The 'Herbie' car featured on the March cover is produced by a German Company,

Robbe and distributed in the U.K. by Cougarcraft Ltd., Woodhead Road, Holmbridge, Huddersfield, West Yorks. HD7 2UX.

4-cell racing formula

Dear Sir,

Following the comments made by Cecil Schumacher in the April issue concerning 4-cell, 1/12th scale racing, I would like to put an alternative case. Simply put, I feel that we already have an excellent 4-cell formula in Mardave 'Ministock' racing. These cars are cheap, reliable and because the cars are virtually identical the racing is very equal. If a 4-cell formula is started it should be, in my opinion, based on the 'Ministock' with National series using rules drawn up by the BRCA. I wonder what Mardave will make of my comments!
Dean Walpole,
Basildon, Essex.

Hmmm, an interesting viewpoint concerning 4 cell racing. I am sure Mardave will feel very kindly towards your idea. We may ever see a Schumacher 4-cell Peugeot 205!

Hornet update

Dear Sir,

I have just bought the 'Tamiya Hornet' and would like to know how to update it.
Jonathan Austin,
Cobham, Surrey.

The Tamiya Hornet is in fact an update version of the 'Grasshopper', so in effect

you already have an update kit.

Unfortunately, at present we know of no modifications to the Hornet but if anything comes along we will publish details in the magazine.

Goodyear, Pirelli, Michelin, or Tamiya?

Dear Sir,

This Christmas, I was lucky enough to receive a Tamiya 'Hornet' which I am very pleased with (especially as it beats my friend's 'Rough Rider' hands down!)

Although the 'Hornet' is an Off-Road car, I often use it on tarmac and wondered if you could suggest a good set of tyres for this purpose. My brother has demonstrated, to me, what happens when you use knobbly 'Super Champ' tyres (well they were knobbly) on the road. I hope that you can help me.
Damyon Hardy,
Ipswich, Suffolk.

The manufacturers of the 'Hornet', Tamiya, have produced a wide range of buggies and in the process many different types of tyres.

We would suggest the 'grid pattern' type as used on the 'Audi Quattro', 'Lancia Rally', 'Subaru Brat' or 'Fast attack vehicle' would be suitable for tarmac racing. Wheels and tyres for Tamiya cars are widely available as spare parts, contact your local stockist. ☐

Clubs... Clubs... Clubs

HERE AT THE 'Model Cars' office we receive regular enquiries from individuals wishing to know where their nearest racing club is.

Most of the time we can help or else know somebody else who can. However there are times when we just have to give up and write back suggesting that the person contact their nearest Model Shop for information.

Often the information we do have is wrong. The Secretary has changed, the club race somewhere else, on a different night and so on.

We know of great many clubs up and down the country, but we also know that there are an awful lot more besides. Subsequently if someone writes in and we don't have the info we can't help them.

Now, once and for all, we are going to try and get as comprehensive a club listing as we can with **your** help. Below we have printed a form which will give us all the necessary information to produce a complete listing. All you have to do is make sure your club secretary sees it, fills it in and sends it to us as soon as possible.

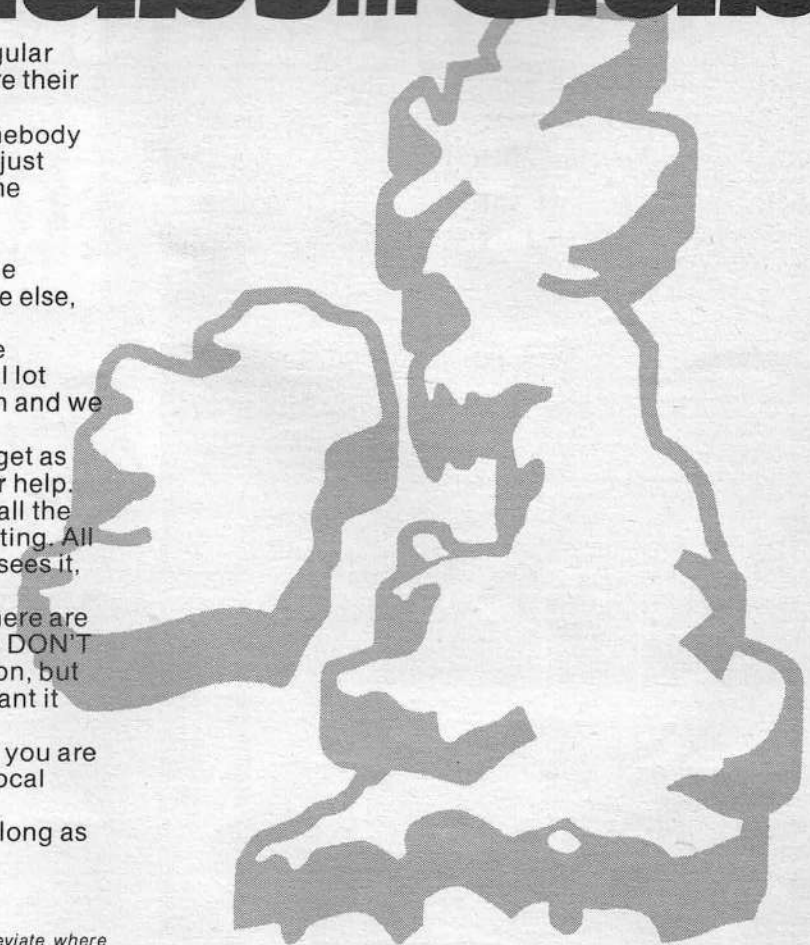
Obviously a great many club secretaries out there are saying: "but you know all about our club" Please DON'T assume this, we probably have got the information, but to make the whole operation much simpler we want it again — on this form.

No club, large or small, must be left out even if you are only a small group of people racing around the local park fill in the form — please.

We will keep updating our computer listing as long as the information keeps coming in.

Thanks.

Use only the allotted number of squares for each section. Abbreviate where necessary. Please tick appropriate box for type of racing. Include STD telephone code. Please write clearly in ink using block capitals. Send to Model Cars Clubs, PO Box 35, Wolsey House, Wolsey Road, Hemel Hempstead, Herts., HP2 4SS.



Club name

Location

Street

Town

County

Region

Type of Racing

1/8 circuit ☐

1/12 circuit ☐

1/8 Stox ☐

1/12 Stox ☐

1/10 Buggy ☐

1/8 Buggy ☐

Contact

Secretary

Address

Town

County

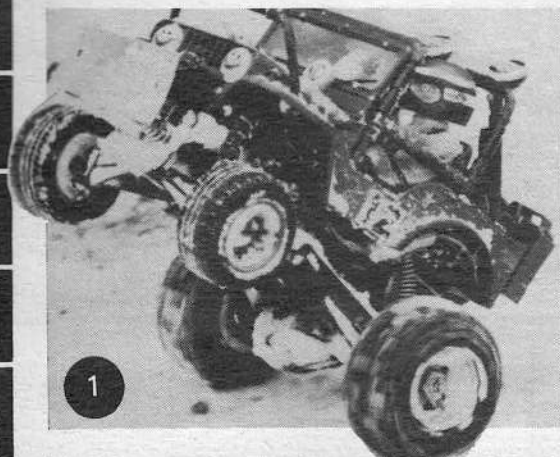
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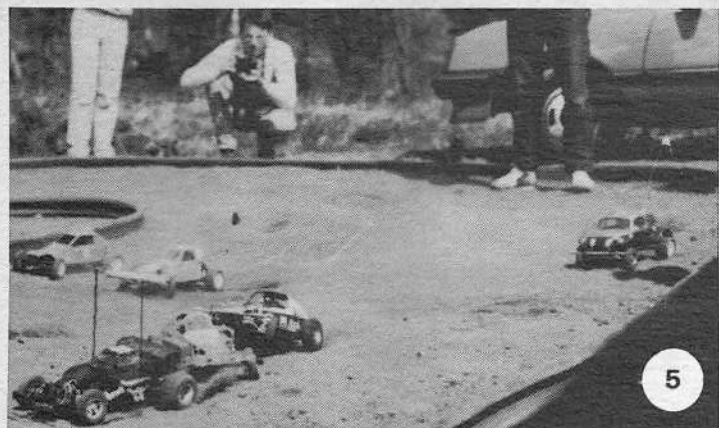
Tel.

Photo-Action Competition

How to win a set of Acoms R/C equipment

- (1) Send Model Cars an action photo that you have taken.
 - (2) The photo may be of any type of R/C Model Car, the theme is ACTION.
 - (3) You may send black and white or colour prints (not negatives) or colour transparencies. Maximum size of 'Half Plate' please. Colour transparencies may be either 35mm or 120 size.
 - (4) Any number of photos may be submitted but please mark the back of the photos clearly with your name and address plus details of the models, the site and the camera used.
 - (5) If you wish us to return the photographs please include a stamped addressed envelope.
 - (6) Photographs must be all your own work, no copies of previously printed or published material will be eligible.
 - (7) The photographs must be your own work — commercial processing is allowed.
 - (8) Entries will be judged by staff of MAP. No correspondence or telephone conversation can be entered into about entries.
 - (9) The judges' decision is final.
 - (10) Model Cars retains the right to publish winning entries plus selected runners-up in any form it sees fit. All photographs will be paid for at our usual rates.
 - (11) The publishers, MAP Ltd., can accept no responsibility for photographic material submitted but every care will be taken to ensure its safe return when requested.
- SEND YOUR ALL-ACTION PHOTOS TO: MODEL CARS PHOTO PRIZE, PO BOX 35, WOLSEY HOUSE, WOLSEY ROAD, HEMEL HEMPSTEAD HP2 4SS.





5

PHOTO 1: This modified 'Wild Willy' belongs to Simon Ashley of Sheffield. Simon's Dad did the driving whilst Simon handled the Minolta SRT 101 camera.

PHOTO 2: Raf Kumar of Hounslow, West Middx. took this photo of a Tamiya Hornet in his back garden using a Vittomaltic II camera.

PHOTO 3: Another snow shot of a Tamiya 'Wild Willy' this time from Andrew Watkins of Stroud, Glos. Andrew used a Zenith II camera.

PHOTO 4: Stuart Foster lost no time in photographing his new Tamiya 'FAV' as well as developing and printing the film himself. Stuart, from Allesley, Coventry, used a Praktica Super TL camera.



6



8



7



9

PHOTO 5: Racing action from A. J. Eades of Hampton Magna, Warwick, taken at Coventry using Canon AU 1A1 camera.

PHOTO 6: The Mitsubishi 'Pajero' from Tamiya, pulls a wheelie for the Praktica camera of Gary Spencer from Allesley, Coventry - again!

PHOTO 7: Just ready for take-off, Mark Hopkins drove this Tamiya 'Wild Willy' and took the picture - clever! Mark comes from Leamington Spa, Works., and uses a Praktica camera.

PHOTO 8: WINNER: an excellent 'panned' action shot from Kevin Brett of Abingdon, Oxfordshire wins the set of radio this month. The car is scratchbuilt but the camera is a Canon AE1.

PHOTO 9: Andrew Arthur of Redcar, Cleveland, used a Silette camera to shoot his 'Hornet' on the beach.

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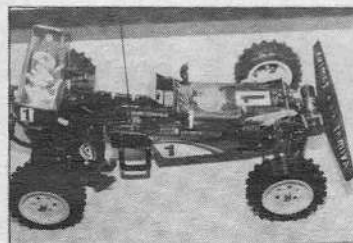
If bought with Picco 21
engine.

SRP 275 Ours £265

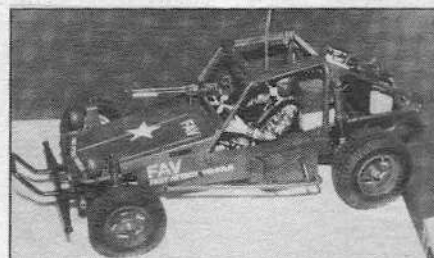
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The 'Hot-shot' is Tamiya's answer to competition 4WD. 1/10th electric Off-Road and as such incorporates all the necessary features. Shaft drive transmission; front and rear differentials; all independent suspension; anti-roll bars, Lexan body and endurance buggy motor. Approximate price £100.00 and will be available May.



Tamiya's FAV (Fast Attack Vehicle) swell the ranks of the Tamiya range. Although not strictly a racing buggy the FAV has a distinct appeal with its military outlook and camouflage possibilities. RRP £60.00. O/P £54.00.

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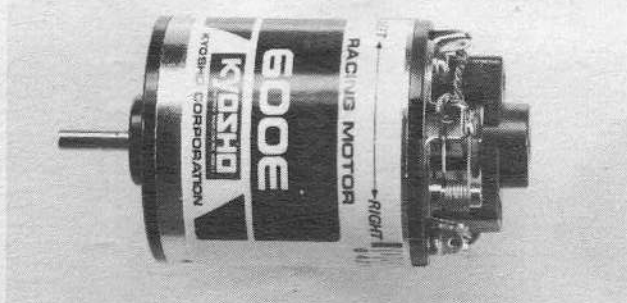


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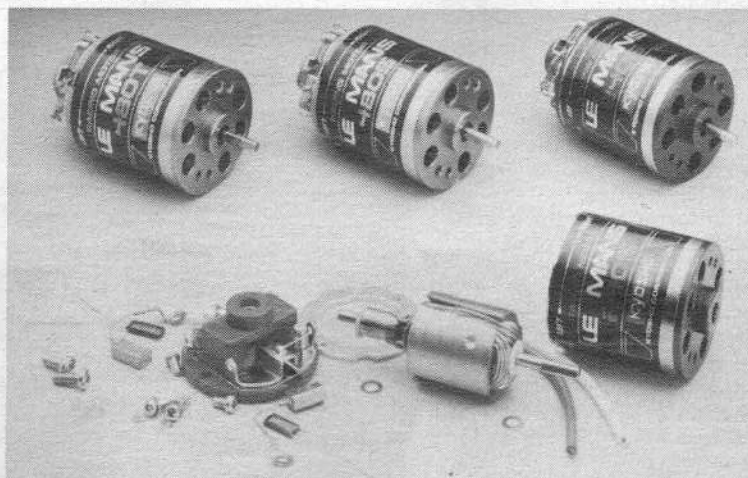
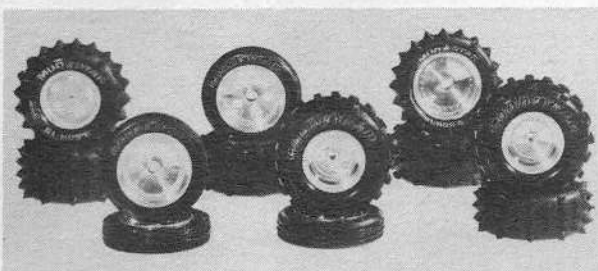
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Total dedication to engineering integrity has rightly earned KYOSHO an enviable reputation as the front runner in the design of R/C Cars, Electric Motors and Trackside Accessories. Backed up by a record of numerous World and National Track Results it's no wonder KYOSHO have become synonymous with success, setting standards that others can only hope to follow.

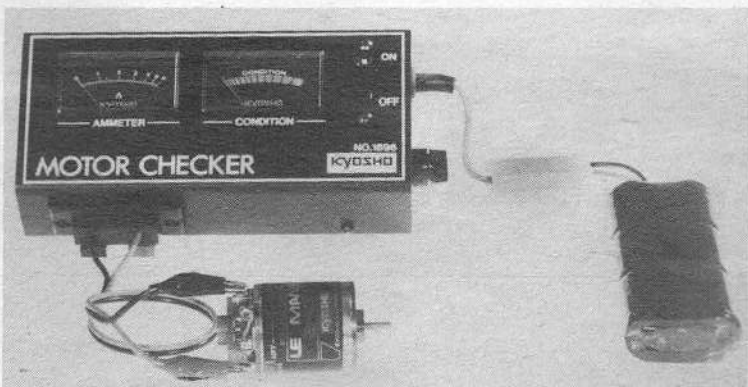


LE MANS RACING MOTORS

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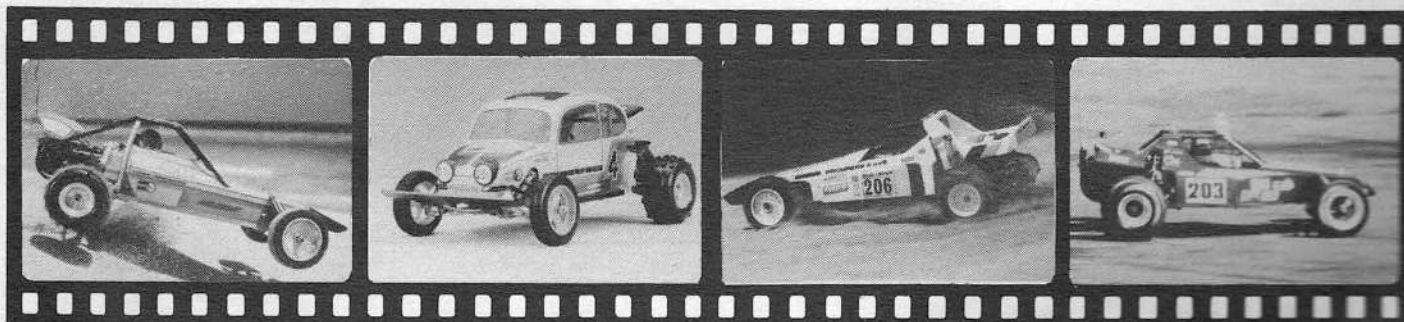


The **ELECTRIC MOTOR CHECKER** (shown below) is an invaluable item for getting peak performance from your electric motor. Allows timing point to be checked when either a rotor or brush is replaced, or when the break-in period is completed, or after any crash damage. Useful also for checking the state of the brushes and whether any blemish or deformation of the commutator is developing. Full instructions for use are included.



Illustrated on the left are the range of tyres and hub styles produced by Kyosho for the Tomahawk, Progress, Scorpion and Beetle Kits. These are interchangeable from model to model, allowing for experimentation with combinations of hubs and tyres to maximise performance from your model in varying track conditions.

As you can see from the high-performance LeMans motors and top quality trackside accessories shown above it's not surprising that KYOSHO also produce an extensive range of highly successful R/C Buggies. From simple rugged models like the popular VW Beetle, to the very latest in R/C Car Technology with the PROGRESS — the ultimate in control with 4-wheel steering and 4-wheel drive.



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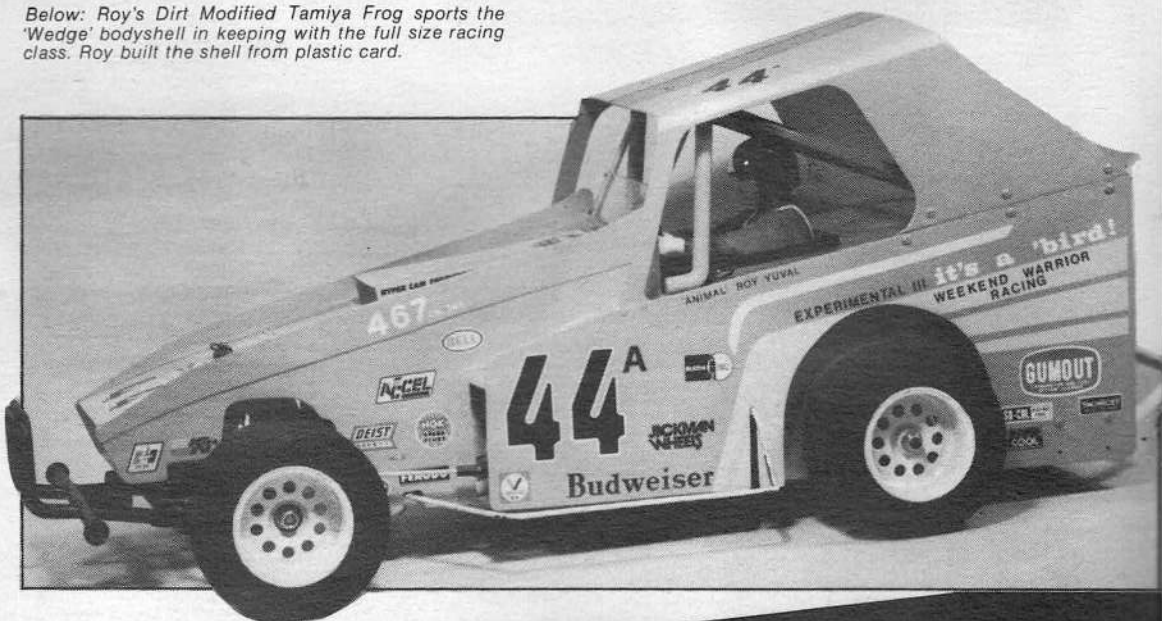
Custom built

by Roy Yuval

TO MOST EUROPEANS, American motor-sport means the 'Indy 500,' stockcar racing and drag racing. The Off-Road enthusiast will of course know that some of the most exciting races for these vehicles in the world, are held in America.

Unfortunately, the greater percentage of Europeans have probably never even heard of the myriad of events that take place every week, on the dirt and asphalt oval-tracks scattered across the length and breadth of the States. Events which pay high-dollar prize money for a variety of classes. Vehicles such as 'Outlaw' Sprint-cars, 'Dirt Modifieds,' 'Late-model' dirt and asphalt sports cars — the list is endless. These oval-track events are the backbone of American

Below: Roy's Dirt Modified Tamiya Frog sports the 'Wedge' bodysell in keeping with the full size racing class. Roy built the shell from plastic card.



Dirt Modified Racer

Try some 'sideways motoring' for a change with Roy Yuval's modified Tamiya 'Frog'



motor sport and the delight of hundreds of thousands of fans who cheer on their local heroes battling it out on the quarter, half and one-mile ovals. The racing is intense and the cars immensely powerful and

colourful all of which adds up to an exciting spectacle for the spectator.

Being only a relatively new convert to the model car scene I decided that my second electric R/C car would be a scale model of

my favourite oval-track vehicle, the 'Dirt-modified.' Being enamoured of the Tamiya 'Frog/Subaru' chassis unit and having already built the 'Frog,' the way was clear for work to begin in earnest!

First, a word or two about the original vehicle. The National Dirt Racing Association of America stipulate that the 'Dirt-modified' class of car must incorporate 'original sheet-metal work,' from the 'base' vehicle represented.

Engines must be normally aspirated, American made and modified within the regulations laid down by the NDRA. In practice, this means that the majority of drivers use the 467cu.in. big-block Chevrolet motor, due to its inherent reliability at high rpm and the enormous number of 'horses' that can be squeezed out of its eight cylinders! We're talking about between six and eight-hundred 'beasties' here guys! Imagine that lot let loose on a quarter-mile dirt oval and you begin to have an insight into why such races are so popular with the fans... Lap times? Well, Jack Johnson driving a Troyer-built car lapped the Syracuse one-mile 'oval' at the end of last season (1984)

MODEL CARS

in 31.1 seconds — I'll leave you to work out the speed!

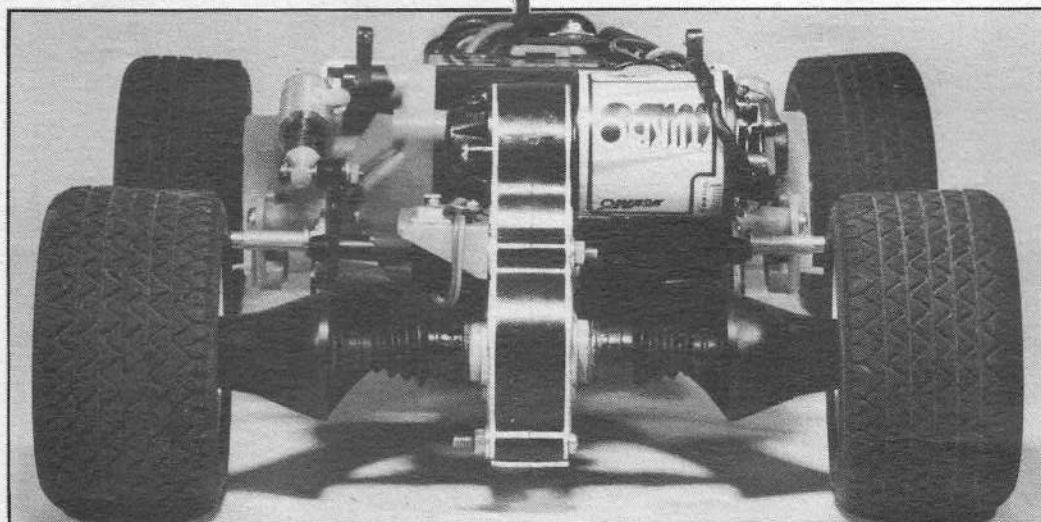
Despite their ungainly looks, the 'Modifieds' rely a great deal on their 'wedge' aerodynamic shape to put as much of that awesome power on the track as possible. The vertical side panels also help to stabilise

tracks it is not unusual to see four different types of tyre on each 'corner,' with the left-front tyre being half the width of its right-hand companion! As all races are run in an anti-clockwise direction, the left-front tyre is the least stressed and the most important of all being,

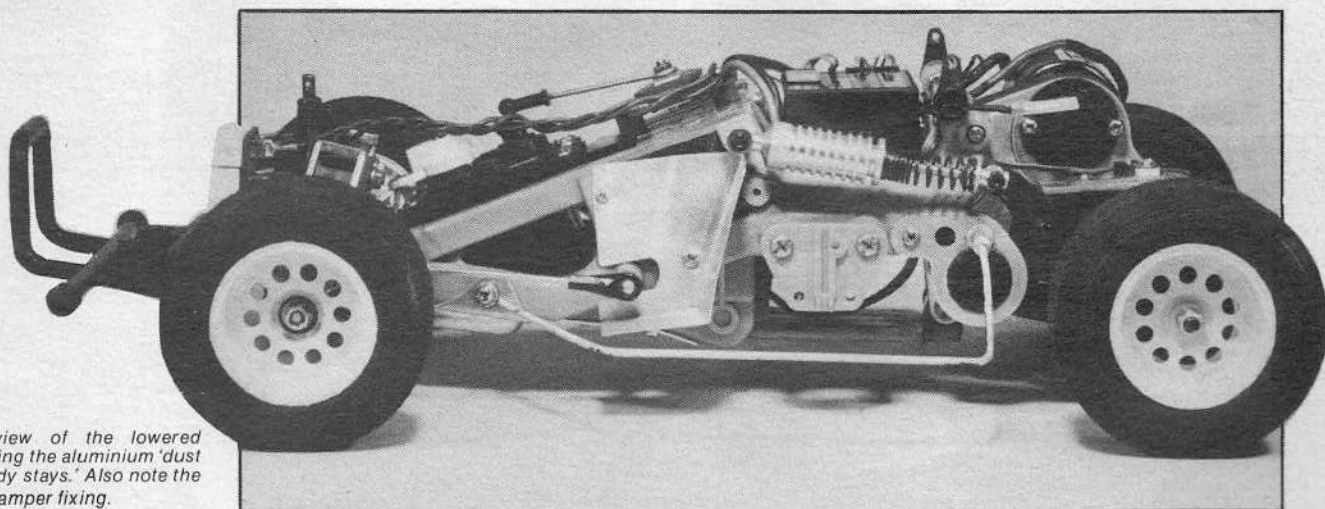
Tamiya 'Frog/Subaru' chassis generally, there are one or two details in its construction that leave a lot to be desired. Fortunately, as I intended the car to be a 'flat' runner in the future, both the details that I was not so happy about were relatively easily corrected.

the process.

Tackling the more difficult of the two ends first, I began by disconnecting the shock absorbers from the chassis and lining up the ideal drive-line between the gearbox and trailing arms. The shock absorbers, still attached to the trailing arms were then offered-up to the rear of the 'chassis' and note taken of the mounting-point's approximate position in relation to the original chassis-mounting. It was found that in order to maintain a reasonable working angle for the shock absorber, the chassis mounting point needed to be one centimetre higher. Two aluminium 'outrigger' mounting brackets were next made from 'U' channel (see Fig. 1), which would provide a rigid enough



Left: rear view illustrating the radically altered, straight drive line obtained by lowering the rear suspension. The new on/off switch position is also clearly visible.



Right: side-view of the lowered chassis showing the aluminium 'dust excluding body stays.' Also note the revised rear damper fixing.

the car whilst drifting sideways through the turns. Suspensions are 'crude' by European standards for racecars, many have tried sophisticated independent systems and found to their cost, that the 'solid' rear-axle is the only real way to get these cars to 'handle.' The 'beam' front axle is usually found on most of the cars, although fabricated 'A' frames are favoured by some drivers, despite their rather fragile nature.

As with American stockcar racing, the right choice of tyres is critical to success and on the smaller

of course, the right-rear, which bears the brunt of cornering stresses.

Apart from the 'Dirt-modified' being my favourite oval-track racecar, there are any number of model stockcar tracks in existence already in England. Now wouldn't it be nice to see a new class of racecar out there on those 'lively' ovals adding a touch of variety to an already exciting class of R/C racing — after all, variety is the spice of life isn't it? Anyway, it's a thought — now down to details.

Although I admire the

The first to be tackled was the rear suspension, or rather the tortuous line that the driveshafts take in transmitting the power from the differential to the wheels. It is hardly surprising that both driveshafts and sockets have a limited life, when one observes the horrendous angles at which these items are supposed to operate. No amount of lubrication could possibly help prevent wear under these conditions. The entire suspension, front and rear, needed to be lowered in any case, and would eliminate the problems in

forward shock absorber mounting.

The 'outrigger' brackets are mounted on the chassis top rail, utilising the front, speed-controller mounting plate screw and a further 3mm bolt, through a new hole drilled in the top rail 12mm to the rear. The shock absorber is now mounted on the outer end of the outrigger, using a 3mm Allen-screw and secured with a Nyloc on the inside of the channels.

The new, almost horizontal drive-line, brought with it another small problem of its own,

Custom built

ground clearance — or rather, the lack thereof! However, as the car would no longer be used in its former Off-Road configuration, the solution was simple. A piece of 10mm x 10mm aluminium 'U' channel was fashioned into a simple 'diff-guard' and mounted under the gearbox which prevents the unit from 'bottoming out.' Since modifying the drive-line angles, the car has run for approximately four hours of hard driving, without the slightest sign of driveshaft wear, which is extremely gratifying.

The front suspension was 'lowered' by simply fitting a shorter transverse coil-spring, so that the

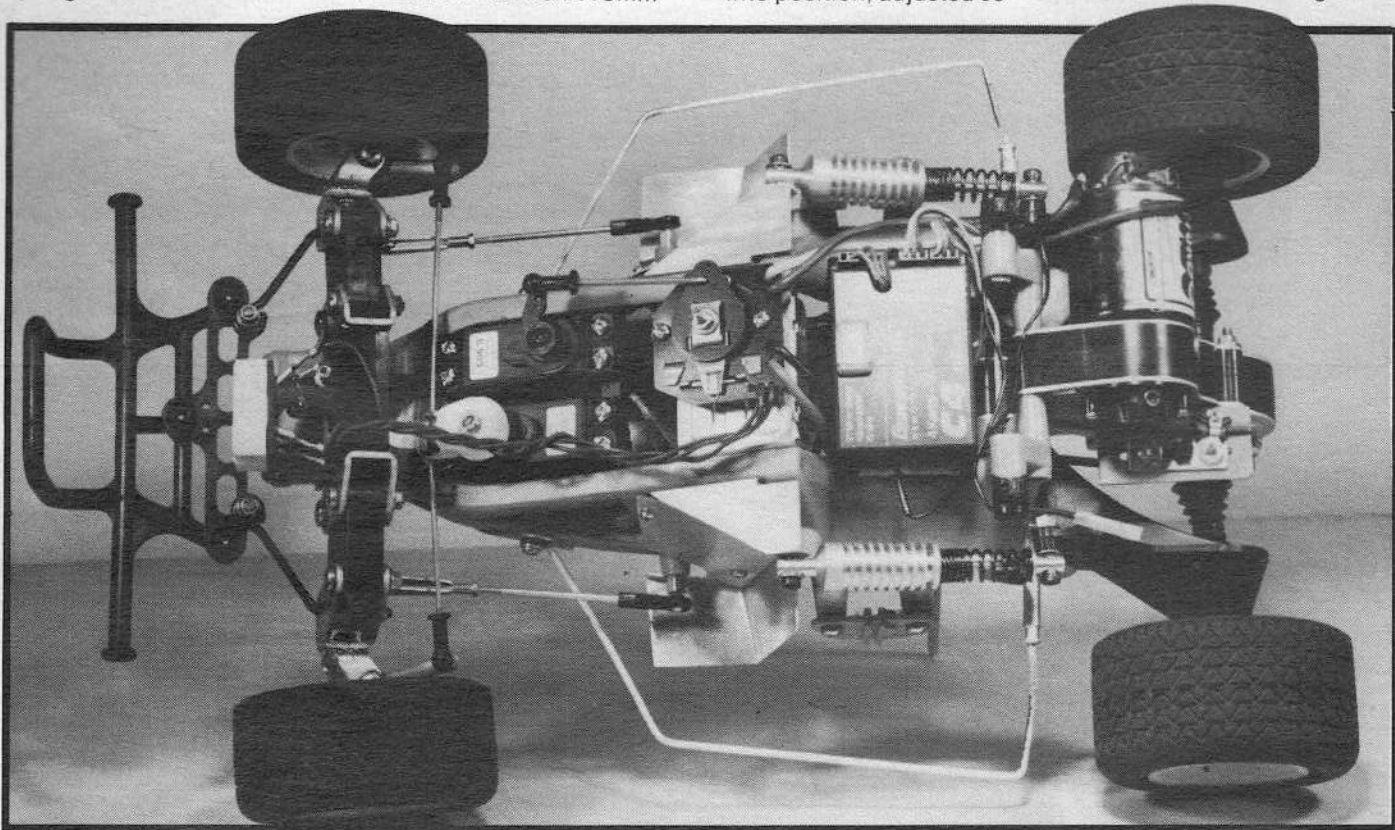
had to be 'seen-to' in this department! I decided to fit a pair of 'trailing-arms' to the lower half of the front-arm stay, thus converting the front-end to 'parallel-arms' and lower 'A' frame suspension... The 'trailing-arms' were fashioned from spring-steel, 2mm dia. wire both ends. On one end was screwed a nylon ball-joint socket and a steel clevis/locknut assembly was fitted to the opposite end, the latter to enable the length of the trailing arms to be adjusted. Chassis attachment points for the ball/socket end of the arms, was kindly provided by Mr. Tamiya himself, in the shape of the lower mounting for the ON/OFF switch. A 5mm

necessary to mount the clevis-pin exactly 10mm above the radius-arm mount (part fl). The front mountings were fashioned from 5mm brass right angle cross-section, two pieces 10mm long were cut from a strip and drilled with two 2mm diameter holes on one side and a single 2mm diameter hole exactly in the centre of the other side.

The single, central hole would be used for attaching the clevis and the other two used for bolting the bracket-mount to the Front-arms Stay. With the holes finally drilled and the bracket-mount bolted and 'Locktited' securely to the Front-arm Stay, the clevis was slipped into position, adjusted so

aluminium bracket screwed into the original 'Frog' front body-mounting plate. The mounting-pin itself would be utilised later, together with the 'Subaru Brat' mounting plate (Part C13, marked as 'unused' in the 'Frog' kit) for mounting the new bodyshell.

Side 'nerfing-bars' were fashioned from a pair of Tamiya, 2mm diameter antenna rods, bent to shape and mounted with the looped-end being screwed to the lower-front chassis rail and at the rear, through the rear suspension-arm side-plate hole. However in order to change my gear ratio, I must also dismantle the 'nerfing bars' first — however, I'm working on the



Above: top-view of chassis unit; the aluminium angle-brackets for lowering the rear suspension can be clearly seen together with the new trailing arm struts mounted on the front suspension and front moulded ceramic resistors.

Opposite page: bottom view of chassis, showing diff guard and side 'nerfing-bar' mounts.

suspension arms assume a horizontal position when the car is at rest and with the batteries on board. However, I was not particularly enamoured of the manner in which the front suspension arms exhibited a large amount of fore-and-aft play, which coupled with the slackness in the front uprights, reached somewhat alarming proportions — something

diameter ball unit was screwed into this convenient mount and the arm, complete with socket, was simply 'popped' into place.

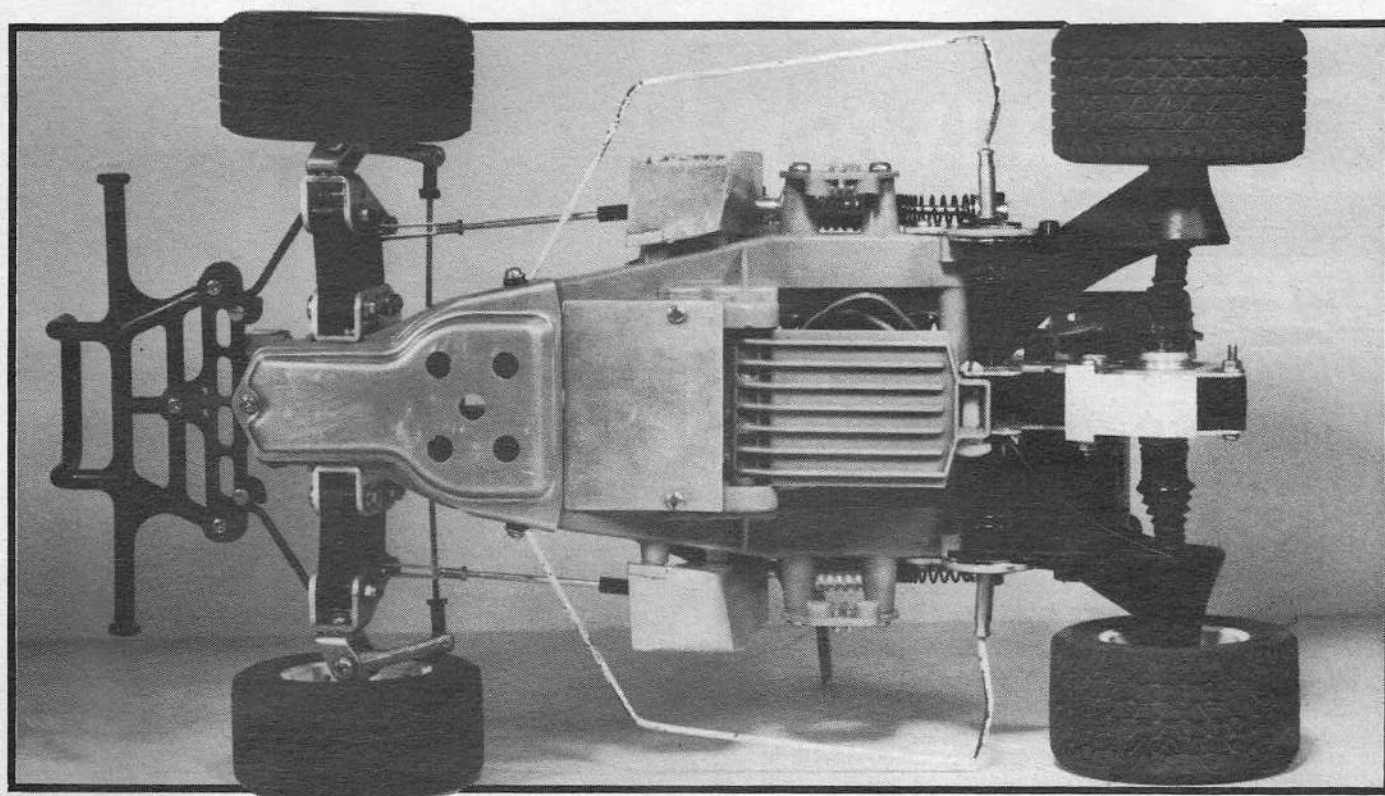
The clevis end of the trailing arm was then offered up to the front-arm stay in order to determine the correct position for the front pivot-mounting. With the trailing arm held in an horizontal-to-the-ground position, it was found

that the suspension-arms were held firmly, fore-and-aft and then locked in position with the locking nut — *voilà* end of phase two!

The ON/OFF switch was next repositioned on the left-hand gearbox side-plate, using the original plastic angle mount. The twin ceramic speed-control resistors, were mounted on the extreme front of the chassis, using a simple

problem!

To date, the foregoing suspension modifications have proven to be even more effective than I at first anticipated. With the 'hard-ride' spacers fitted to the oil-filled coil-overs, one is able to power the car hard through the turns without inducing any noticeable body roll or tendency to flip onto its roof. With about 2° of castor angle, the car

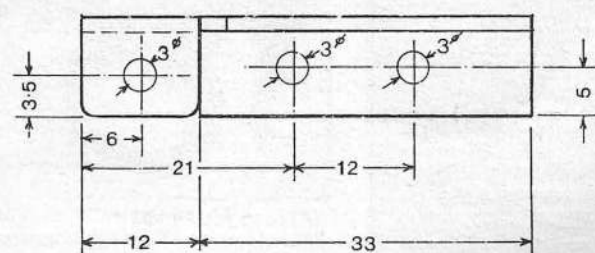
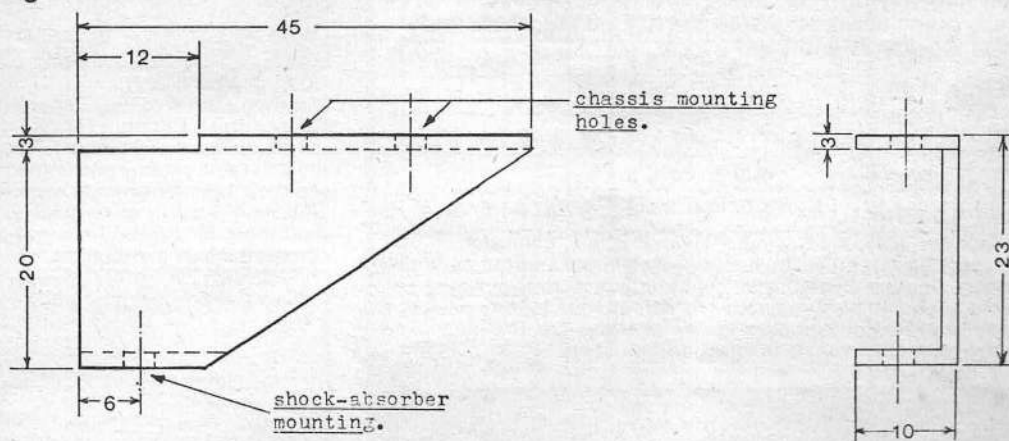


exhibits relatively mild understeer on asphalt, even with the 'pedal-to-the-metal' and responds quickly and positively to the steering. As can be seen from the photos, I use *Tamiya* Lancia wheels and tyres for asphalt and hard surface tracks, changing to 'Subaru' tyres/wheels for 'loose' gritty surfaces. On short, 'hard' tracks, with the intermediate gears ratio and the wide wheels, it is even possible to induce a touch of wheelspin exiting from the turns — which adds a touch of spice to the whole thing!

A quick comparison between the inner and outer, rear-tyre edges will illustrate the amount of sideways motoring I have found possible with this new setup, even though I have as yet, been unable to equal the spectacular cornering techniques used by the 'real' Dirt-Modified pilots, even in "the wet"! Still, I suppose my power-to-weight ratio still leaves a little to be desired, comparatively speaking that is!

**Next month:
Part Two: Building
the bodysell**

Fig. 1



Tamiya FROG/SUBARU
REAR SUSPENSION LOWERING
BRACKET.(NOT to scale)
Material:23 x 10 x 3 mm.
aluminum 'U' channel.
ALL MEASUREMENTS IN mm.

Drawing shows RIGHT HAND
bracket only: dimensions
for LEFT side identical
but 'reversed'.

Car Buyer

The 'Model Cars' guide to race-winning 1/10th scale electric buggies

If you are interested in 1/10th scale electric buggies then one thing is for sure, you will not be spoilt for choice. The car market in this racing class is indeed wide and new products, new manufacturers are constantly appearing to swell the ranks.

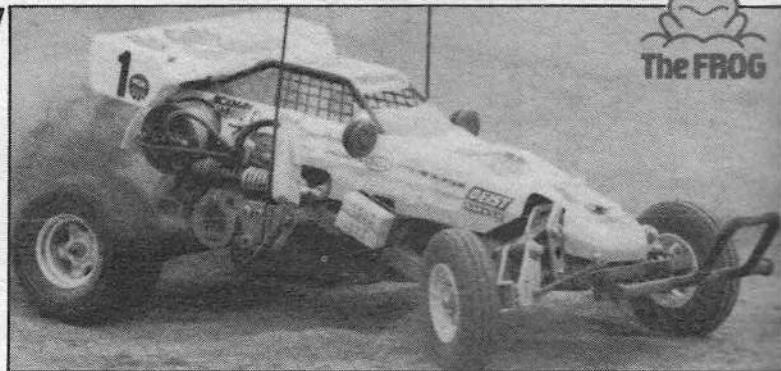
As a magazine primarily directed towards racing as opposed to back garden playing about, we decided to display our choice of 'Race Winners' to ease you on your way to final selection. These cars are only the competition end of the market and there are a lot more besides. Fun machines, stunt vehicles and less complex, budget priced, Off-Roaders.

Just like buying real cars, there is no substitute for actually going to see your selections. Find out where your nearest stockist is and have a look.

(Below) **Apache**

Manufacturer: *Mardave Racing*, 7 Heanor Street, Leicester.

The 'Apache' straddles the border between out and out racer and beginners' model. Design and construction is simple whilst still allowing adequate performance. Kits can include battery pack and charger to provide a complete racing package bar R/C gear. The bodyshell is a polypropylene injection moulding.

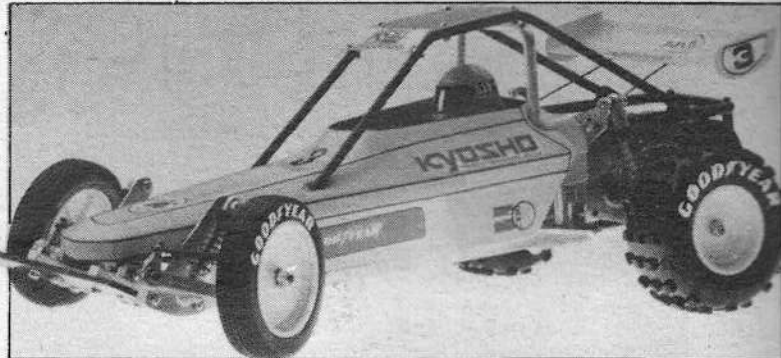


The FROG

(Above) **Frog**

Manufacturer: *Tamiya*. Importer: *Riko*, 13-15a High Street, Hemel Hempstead, Herts.

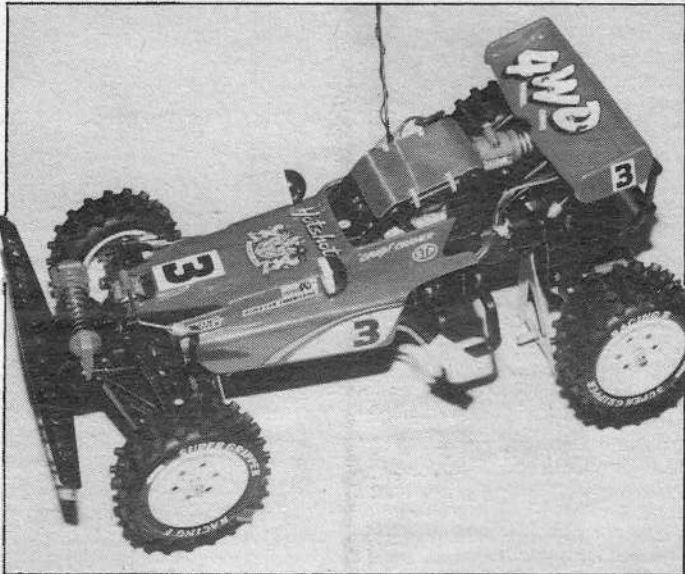
The Frog is the *Tamiya* 'state of the art' two-wheel drive racer and as such includes many extras not found on other, similar, *Tamiya* kits. The chassis is a nylon injection moulded 'space frame' which is not only light but also very strong.



(Above) **Scorpion**

Manufacturer: *Kyosho*. Importer: *Ripmax Models*, Ripmax Corner, Green Street, Enfield EN3 7SJ.

The 'Scorpion' heralded *Kyosho's* introduction into the competition racing scene and immediately proved to be the car to beat at the time. Low weight and excellent suspension/damping made the 'Scorpion' easy to drive quickly. Despite being a competition racer the 'Scorpion' (and all kits in general) feature easy assembly and comprehensive instructions.



(Above) **Hotshot**

Manufacturer: *Tamiya*. Importer: *Riko*, 13-15a High Street, Hemel Hempstead, Herts.

The 'Hotshot' marks a departure from convention for *Tamiya* as this car is four-wheel drive. The Hotshot also bristles with racing features. Twin differentials, anti-roll bars (front and rear) oil filled dampers, lexan body and ballraces...



(Above) **Hornet**

Manufacturer: *Tamiya*. Importer *Riko 13-15a*, High Street, Hemel Hempstead, Herts.

The 'Hornet' is basically an uprated version of another *Tamiya* buggy, the 'Grasshopper.' By adding oil filled dampers, lexan body, larger motor (540 size) and modifying the rear suspension *Tamiya* have produced a car that is still very basic but also light and thus fast.



(Above) **Tomahawk**

Manufacturer: *Kyosho*. Importer: *Ripmax Models*, Ripmax Corner, Green Street, Enfield, EN3 7SJ.

The 'Tomahawk' takes the 'Scorpion' design and incorporates slight changes. The radio crate is replaced with a radio plate. A differential is included as standard, roller bearings are fitted to the front wheels and generally the car is made lighter. 'Scorpion' suspension and damping remain unaltered.



(Above) **Progress**

Manufacturer: *Kyosho*. Importer: *Ripmax Models*, Ripmax Corner, Green Street, Enfield, EN3 7SJ.

The 'Progress' is unique amongst this selection as not only does it feature four-wheel drive but also four-wheel steering. By allowing the rear wheels to steer the normal 4WD characteristics of power-on understeer is lessened. One way roller clutches in the front wheel act as a front differential.

Apache	Tomahawk	Scorpion	Progress	Hot Shot	Hornet	Frog		
							4 Wheel Drive	
							2 Wheel Drive	
							Ladder	Chassis Type
							Plate	
							Open Box	
							GRP	Chassis Material
							Alloy	
							Moulded Plastic	
							Trailing Arm	Front Suspension
							Wishbone	
							Trailing Arm	Rear Suspension
							Wishbone	
							Cast Alloy	Suspension Parts
							Moulded Nylon	
							GRP	
							Oil Filled Dampers	Front Springing
							Torsion Bars	
							Coil Springs	
							Oil Filled Dampers	Rear Springing
							Torsion Bars	
							Coil Springs	
							Front	Anti-roll Bar
							Rear	
							Gear	4-wheel Drive System
							Chain	
							Belt	
							Shaft	
1	1	2	1	1			Numbers	Differentials
							Limited Slip	
							Planetary Gear	
							Bevel Gear	Motor
							Mabuchi	
							Yokomo	
							Igorashi	Speed Control
							Circuit Board	
							Wound Resistor	
							Lexan Body	
							Radio Crate	
							Radio Plate	

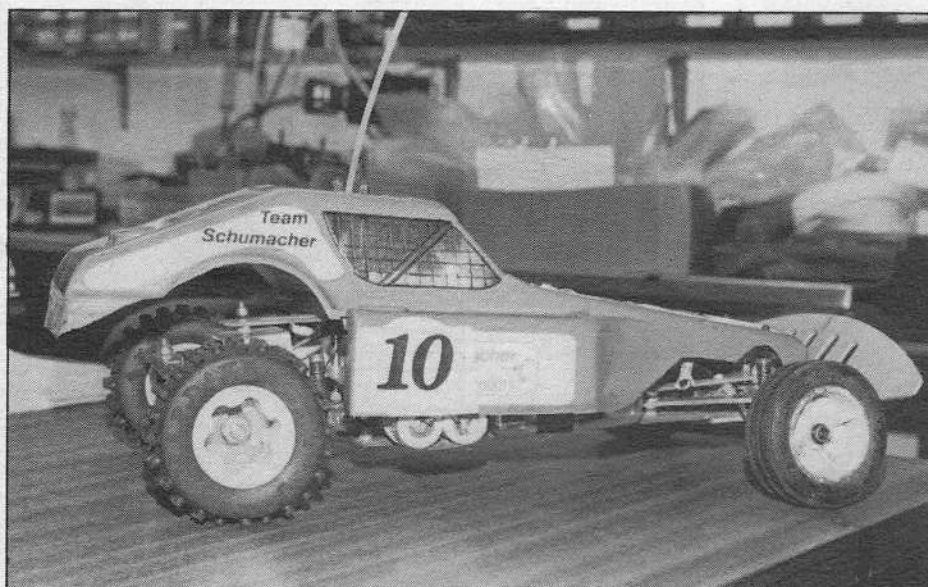
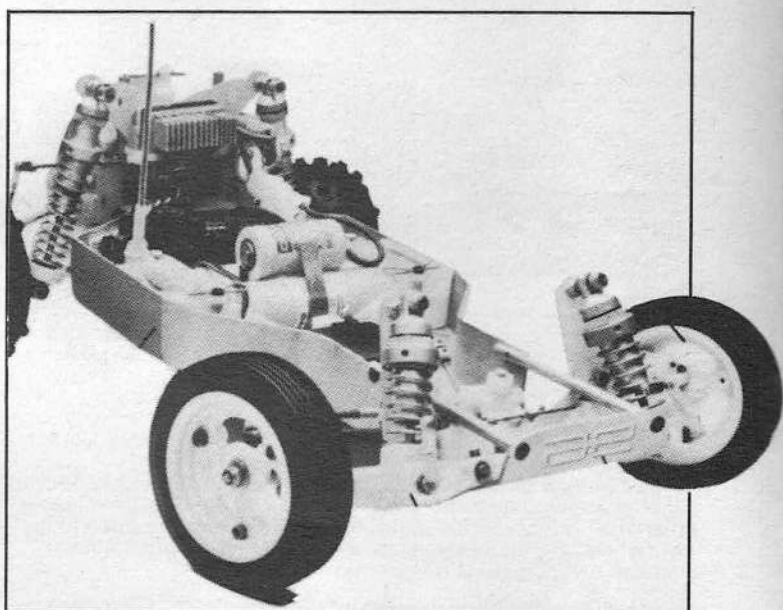
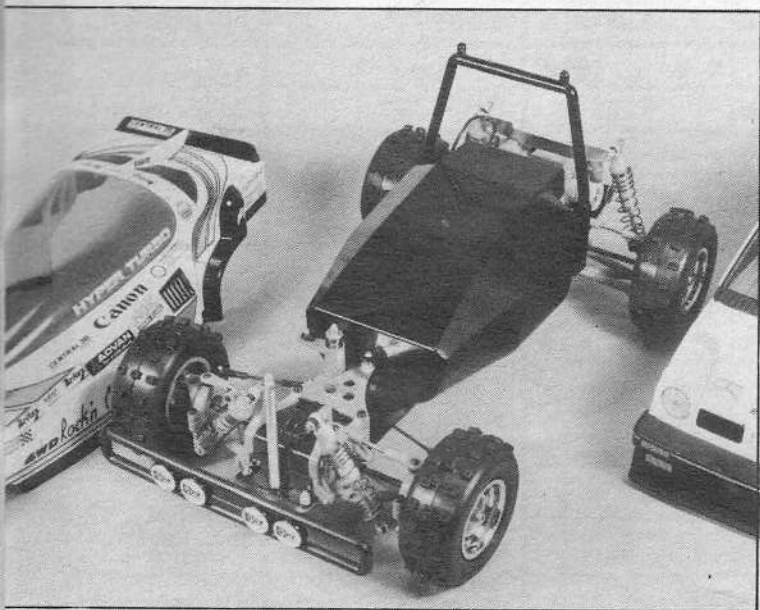
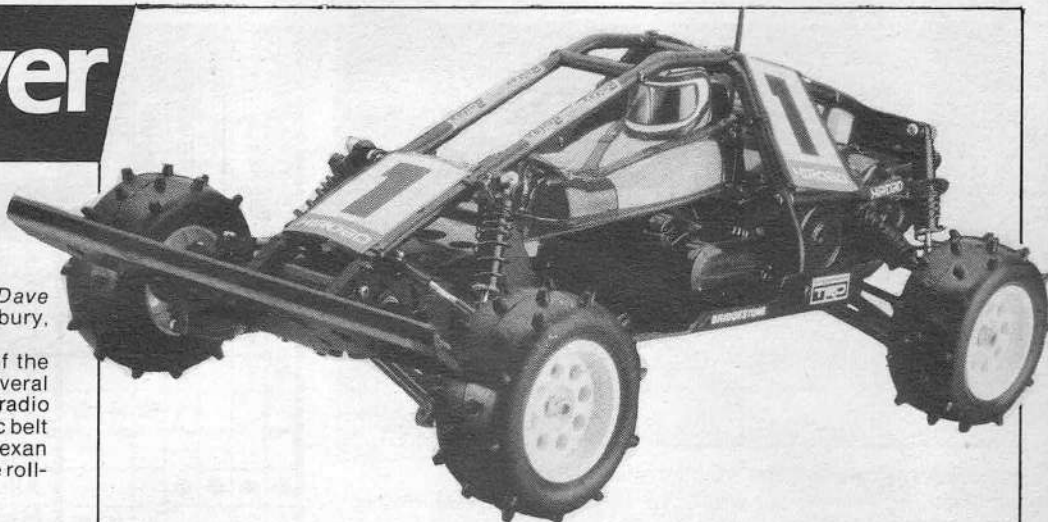
Market Survey

Car Buyer

(Right) **Zerda**

Manufacturer: *Hirobo*. Importer: *Dave Nieman Models*, 34 Watford Road, Sudbury, Wembley, Middlesex.

The 'Zerda' is an uprated version of the 'Rock 'n' City' and incorporates several detail changes. One-piece chassis, radio plate and ballraces all feature. The basic belt drive 4WD system is retained but the lexan bodyshell is replaced with an open style roll-cage.



(Above left) **Rock 'n' City**

Manufacturer: *Hirobo*. Importer: *Dave Nieman Models*, 34 Watford Road, Sudbury, Wembley, Middx.

The 'Rock 'n' City' was the first competition 4WD car to appear in this country and as such used timing belts to transmit drive between front and rear wheels. Despite the extra complication of 4WD the overall weight and running time is almost identical to the less complex 2WD cars.

(Above) **RC10**

Manufacturer: *Associated Electronics Inc.* Importer: *SRM Racing*, 140 West Street, Fareham, Hants.

The 'RC10' is the answer from American Company, *Associated* to the proliferation of Japanese buggy kits. The 'RC10' is primarily directed at competition usage and as such incorporates a wide range of adjustments to suit varying driving styles and track conditions.

(Left) **Digger**

Manufacturer: *Cecil Schumacher 'Rudge'*, Church Brampton, Northampton NN6 8AU.

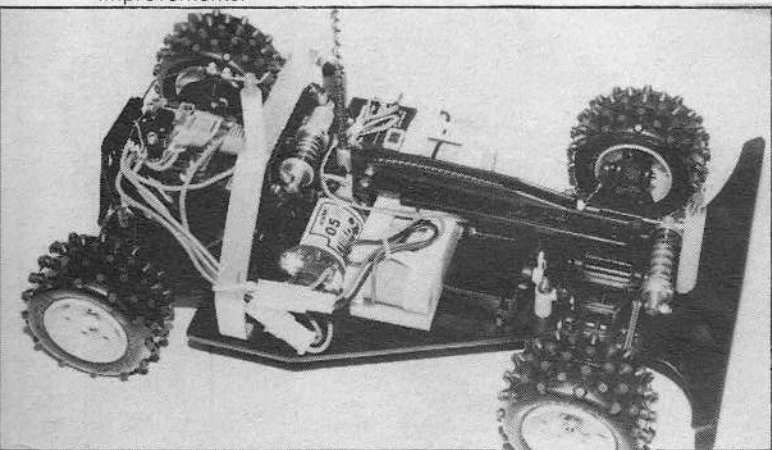
The 'Digger' is unlike any of the other cars mentioned here in that the suspension system is rather more basic in comparison. All the components are made from glass reinforced plastic (GRP) and as such are



(Above) **Hunter**

Manufacturer: Marui. Importer: Amerang Ltd., Commerce Way, Lancing, Sussex BN15 8TE.

The 'Hunter' is also a slight compromise between the competition racer and fun run-about. Even so the 'Hunter' is capable of performing with the best of them and there is plenty of scope for home improvements.



(Above) **Dogfighter**

Manufacturer: Yokomo. Importer: Ripmax Models, Ripmax Corner, Green Street, Enfield EN3 7SJ.

The 'Dogfighter' is another car currently finding favour under the four-wheel drive banner. Transmission between front and rear wheels is via a drive chain which can be adjusted to the correct tension. The full length chassis is produced from Kevlar which is extremely strong due to its flexibility.



(Above) **Sidewinder**

Manufacturer: AYK. Importer: PB Racing Products, Downley Road, Havant, Hants. PO9 2NJ.

The 'Sidewinder' has found much favour amongst UK drivers due to its strong, durable construction and well thought out design. The standard motor supplied in the kit is AYK's own version of the Yokomo style motor which features adjustable timing and exposed brush gear.

Digger	Hunter	RC10	Zerda	Rock 'n' City	Dogfighter	Sidewinder		
							4 Wheel Drive	
							2 Wheel Drive	
							Ladder	
							Plate	Chassis Type
							Open Box	
							GRP	Chassis Material
							Alloy	
							Moulded Plastic	
							Trailing Arm	Front Suspension
							Wishbone	
							Trailing Arm	Rear Suspension
							Wishbone	
							Cast Alloy	Suspension Parts
							Moulded Nylon	
							GRP	
							Oil Filled Dampers	Front Springing
							Torsion Bars	
							Coil Springs	
							Oil Filled Dampers	Rear Springing
							Torsion Bars	
							Coil Springs	
							Front	Anti-roll Bar
							Rear	
							Gear	4-wheel Drive System
							Chain	
							Belt	
							Shaft	
1	1	1	2	2	1	1	Numbers	Differentials
							Limited Slip	
							Planetary Gear	
							Bevel Gear	
							Mabuchi	Motor
							Yokomo	
							Igorashi	
							Circuit Board	Speed Control
							Wound Resistor	
							Lexan Body	
							Radio Crate	
							Radio Plate	

The Rough Stuff

HOW DISAPPOINTING it was to learn that the first official world championships for 1/10th Scale electric buggies will be held in California this August. There was talk of them being held in Norway which is slightly nearer home. Us Northerners had even discussed hiring a coach to take us all there.

So now it is across the big pond. I wonder if anybody will make the trip? One thing for sure it is going to be just a little expensive. I would say there are a number of British buggy drivers who would be very competitive at a meeting of this calibre and it will be a shame if some of those lads could not go and compete because they lack the necessary funds for such a venture.

It would be nice if a small team could be sent over to "do the bit for Britain" as Maggie says, and maybe this could happen if some financial backing could be found to help with the air fares. I am sure we at Liverpool would as a club be happy to put up some pound notes to help a British driver become a possible world champion. If any interest is shown and any offers forthcoming I will ask the BRCA to look after the affair and pick the drivers.

Obviously if this is going to happen it will have to happen very quickly so things can be arranged. If you are interested, get in touch with me, care of 'Model Cars,' as soon as possible.

Buggies

Steve Newey's look at 1/10th scale electric Off-Road racing

Below: the Associated RC10. Bottom: a new 1/10th racer that has seen little 'track time' in the UK, the Playtron 'Lynx.' Two versions (4WD and 2WD) have been produced but as yet this car has no UK importer. If this changes we'll let you know.

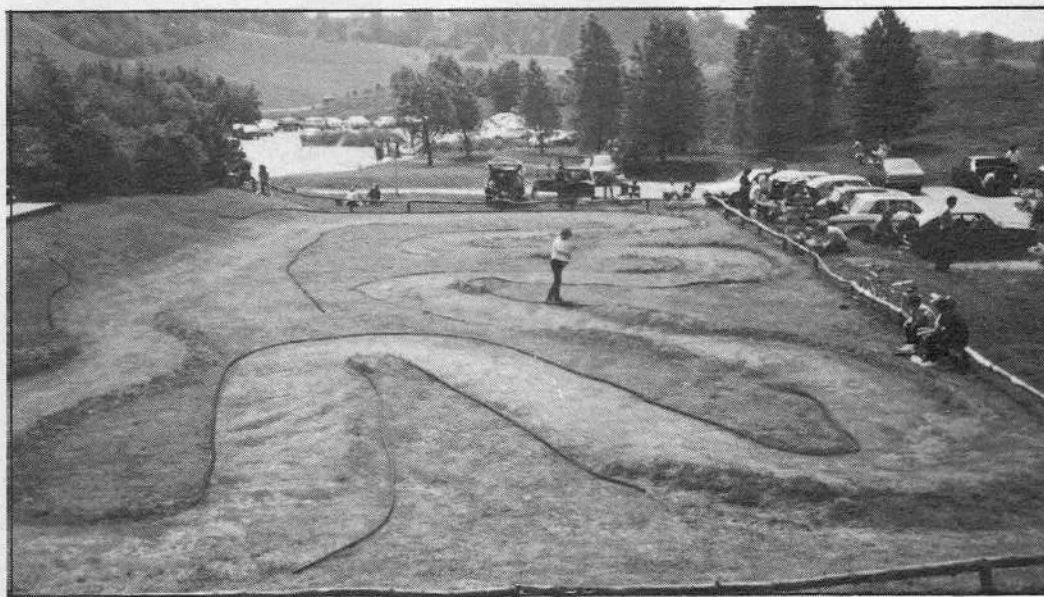


The World Championships will be out of reach for most of us but the European Championship, to be held in

Britain this summer, might not. The meeting will take place at Halifax in Yorkshire on 27th and 28th July.

The Halifax club are going to great lengths to hold this important event, they are even having a track specially built next door to the 1/8th circuit. The latest report on the track is that the land has been levelled off, using a bulldozer and the racing surface will be laid in the near future. As soon as this has been done I will be making a trip up there along with some BRCA committee members to see if the track is suitable for our needs. I fully expect this meeting to be run to the highest order by a club used to holding two day national meetings for our 1/8th scale racing friends with good trackside





Above: a view of the Baggeridge Buggy club circuit mentioned in the March issue. The circuit is situated near Penn, Wolverhampton. Photo: Ian Littley.

facilities. Like camping, toilets, hot foot and drinks and maybe even some of the 'amber nectar'! Also, because the track is more or less in the town centre, there are shops and accommodation nearby, maybe even a couple of nightclubs. I reckon if I can get half the competition drunk, and the other half locked up, I will stand a good chance of winning.

Britain has been allocated 15 places up to now, but there may be more places available later on in the year depending on response entry wise from other countries. Up till now drivers have been invited to enter based on last season's BRCA standard and modified championship positions. But I do not know at present, how other drivers will be picked if the situation arises. The meeting will be run to EFRA modified class rules with an EFRA entry fee (sit down for this one) of £20.00. Plus you will need an international competition license costing £18.00 so it is not the type of meeting to enter just for the day out.

Will the meeting be a success? I think that depends on how many overseas drivers compete and my opinion is that quite a few will, which should make it a very interesting weekend. Up till now there are only two definite entries and they are myself, because I am handling race entries for this country, and George Land. He managed

to bribe me with the promise of a super quick modified motor, but if anybody offers me an even quicker motor, George's place will be up for grabs!

'RC10' report

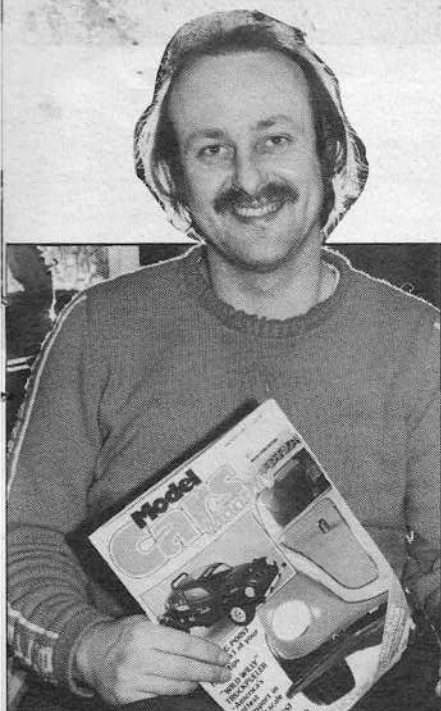
At last I saw, and even had a go of the new *Associated* car. That nice man from *Islander Models* Neil (George) Ward turned up at our club (Liverpool) to try the car out against some serious competition on a very demanding track. We reckon that if the suspension works out on our track, it will work anywhere.

So how did it go? Well quite well considering it is a new car with Neil getting second fastest time of the day. I took over driving the car for one heat and felt the car showed a lot of promise. The straight line speed was as good as anything else, meaning the gearbox and all other running gear was up to scratch. The suspension also worked well, particularly the front end; the rear suspension left a little to be desired but, on a smoother track than ours, it should be well up to the job. The handling was set up to suit Neil with the car understeering into corners and oversteering when the power was applied coming

out of them. I prefer the car to oversteer into a corner and understeer very slightly coming out but the *Associated* can be set up to suit anybody by altering the steering geometry.

So is it worth the money? To be totally truthful my first impressions were negative, but after taking a closer look at the car and the building instructions, I am not so sure. The car does have a lot going for it, for instance: the car has been specifically designed for racing and over a season the running costs should be quite low. All the suspension parts are made from a very tough, wear resistant nylon. The dampers are superb, they do not leak and should last a season's racing if not longer. The differential is the well proven limited slip type using similar parts to those used on the 1/12th scale cars. Also, because the differential is positioned next to the motor pinion, it is very easy to adjust. More importantly though, it means that a small gear can be used in the bottom of the gearbox, giving the rear of the car more ground clearance than on other cars.

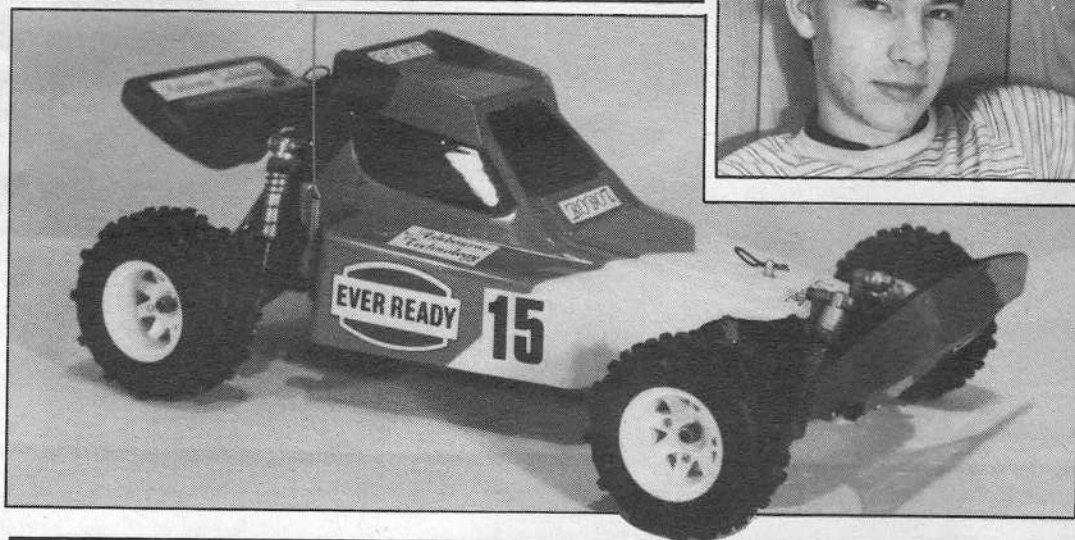
All the gears have fine mesh teeth (32 diametrical pitch) making the gearbox action very smooth and efficient. The chassis is made from aircraft quality aluminium and should take all the punishment you can give it and could be lightened a little if so desired. Wheels and tyres are light in weight and the suspension and steering geometry is fully adjustable to keep you occupied. All the steering linkages look well up to the job and won't fall off or break during a shunt. So out of the box with the addition of ballraces, the car should be up there with the best. Some good results will persuade more and more drivers to buy one, maybe even me, but for now at least, I will carry on with my £500. Sorry £50 scratchbuilt car.



Left: this is me! Proudly holding the March issue of 'Model Cars.' Remember if you see me racing come over for a chat.

Readers Car

Inset right: the driver - Miles Howard who has knotted up some noteworthy success in race meetings around the South East. Below: the Hirobo fitted with a polycarbonate MRP 'Scorpion' bodyshell. Bottom right: close up of the front suspension showing the re-located upper suspension arm links. Also the centralised servo mounted on homemade brackets. This allows equal length steering track rods.



Gear-drive Hirobo

Miles Howard's modified Hirobo 4-wheel drive car is well known around the Bury Buggy Club Circuit.

Mike Howard details the design and modifications

1. Transmission

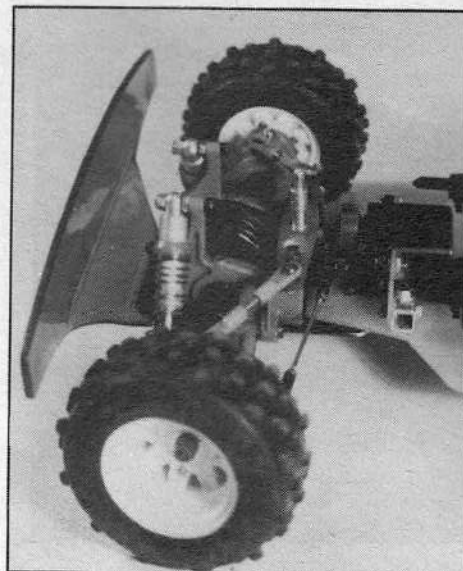
The drive motor is mounted forward of and above the rear gearbox input shaft. The motor is carried on a 1.5mm thick carbon fibre plate bolted to the gearbox right hand side plate. A specially machined input shaft replaces the original and is designed to accept Kimbro's spur gears.

The motor mount is slotted to allow correct meshing of drive gear sets ranging from 12 to 15 tooth motor pinion with 50 or 52 tooth spur gears giving a wide choice of drive ratios. The usual ratio for standard motors is 14:52 giving 1:8.66 overall. The new motor installation gives a

reduction in rear overhung weight, eliminates primary belt tensioning and power losses, and provides a wide selection of quick change gear ratios. The rear section of the gearbox is cut away and covered with a clear polycarbonate panel giving dirt protection to the fore/aft drive belt but with instant visual check facility of belt condition.

2. Rear suspension

The rear suspension lower wishbones are reversed giving a reduction in wheelbase of about 16mm and improved cornering. In addition, the rear shockers are now mounted forward of the axle further reducing



rear end overhung weight and making them less vulnerable to rear impact. Original springs and shockers are used, but with a heavier damper oil and modified piston to cylinder clearances.

3. Chassis

The radio box is replaced by a flat 2.3mm thick glass fibre plate, shaped to match the body skirt profile, and bolted to the original aluminium chassis plate and lower belt cover. Two plastic square sections, 5mm deep are run along the top of the aluminium chassis and below the glass fibre plate to provide space for the belt. This flat plate with its close fit to the body profile keeps the dirt and water out of the car and provides a neat layout for the battery, receiver, speed controller and steering servo. This chassis layout was originally developed on a Tamiya 'Super Champ' raced by Miles early last year, and shown in 'Model Cars Monthly,' August '84 edition.

4. Front suspension and steering

The front suspension upper links are shortened and angled rearwards to eliminate front wheel

positive camber under body roll conditions, thus reducing understeer.

The steering servo is positioned with its output shaft along the car's longitudinal axis, and is mounted high enough above the chassis plate to allow a Kimbro' servo saver to hang vertically downwards. Equal length track rods are used from the servo saver to the steering arms. This arrangement virtually eliminates bump steer and its direct action provides very positive steering and really benefits from the exponential rate transmitter. Front dampers are original with heavier oil and modified pistons. Front springs are Hirobo heavy duty.

5. Specifications

Drive motors — Standard: MG, Bolink, Igarashi.

Modified: MG, Magnum, VT Igarashi.

Radio transmitter — Sanwa Excellence FM.

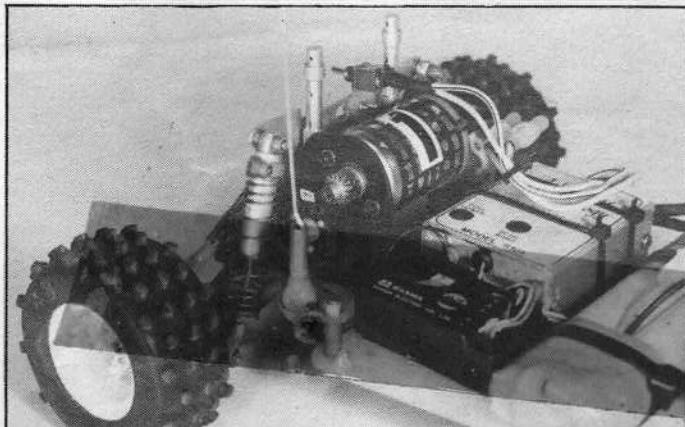
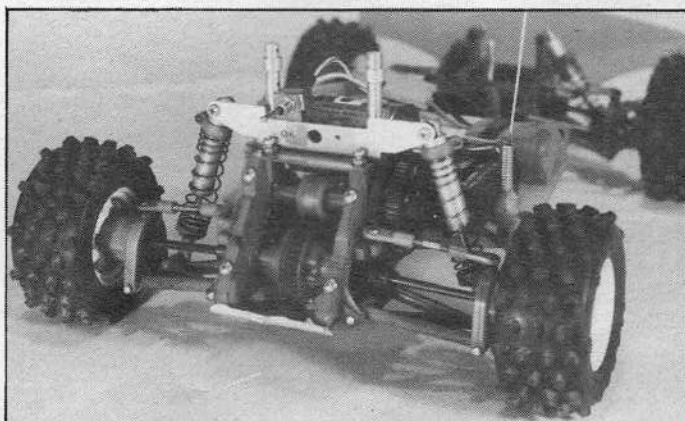
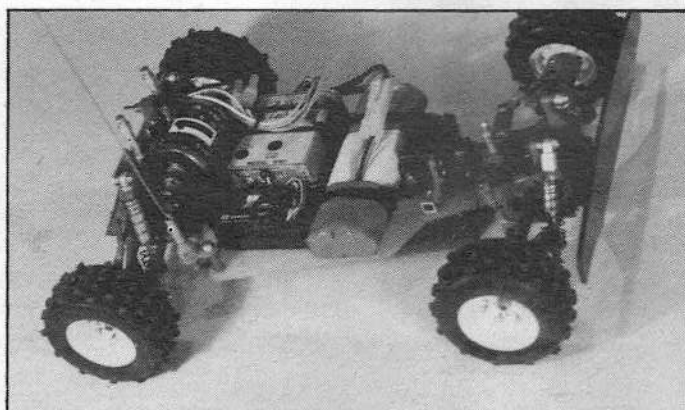
Radio receiver — Sanwa FM.

Steering servo — Sanwa Mini SM 401.

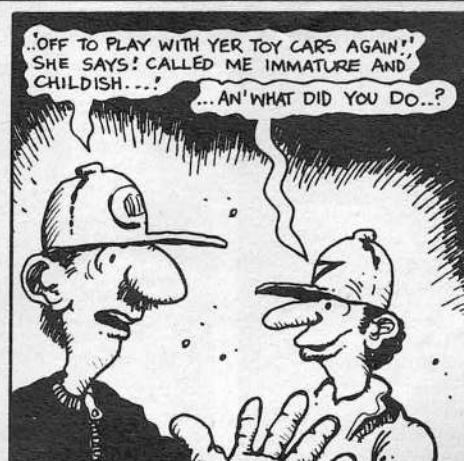
Speed controller — Ashbourne Technology 'Robot.'

Batteries — Ever Ready 1.4Ah.

Body shell — MRP Scorpion Lexan.



Top right: the overall chassis layout showing Ni-Cad 'stick' pack mounted across the chassis. The GRP plate is cut to fit flush with the body. Tyres are Mardave 'Apache'. Centre right: rear view of the car. The dampers are re-located forward of the axle. The rear of the axle/motor mounts is protected by a piece of clear lexan. Right: close up of the gearbox showing new motor mounting plate and drive gears. This system allows a wider range of quick change gear ratios.

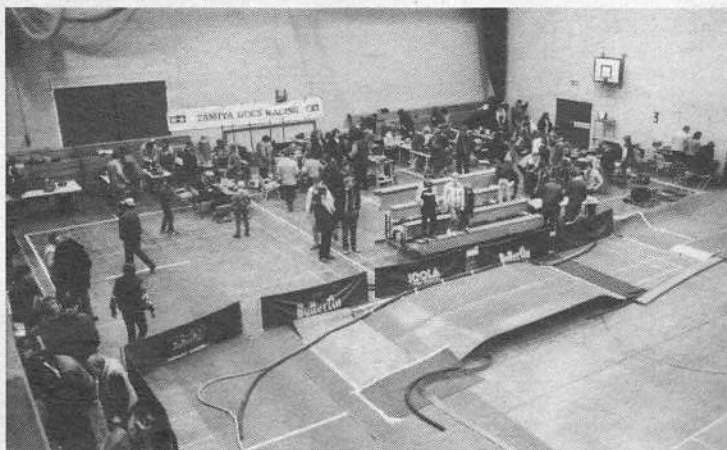


Race Report

TMS Indoor National Championship, Batley, Yorkshire. March 3

Following on from the Wembley indoor buggy racing event the TMS meeting also attracted a fair number of 'stars.' 4WD and 2WD cars battled it out on the demanding circuit to provide an exciting day's racing.

Report: Graham Brown.



Above: the track was constructed on Saturday night by Batley Buggy Club members and comprised gym mats, carpet and a rather slippery tiled floor with the addition of 'Bot Dots' for good measure.

Although the winner drove a Hirobo 4WD, FTD fell to a 2WD car.

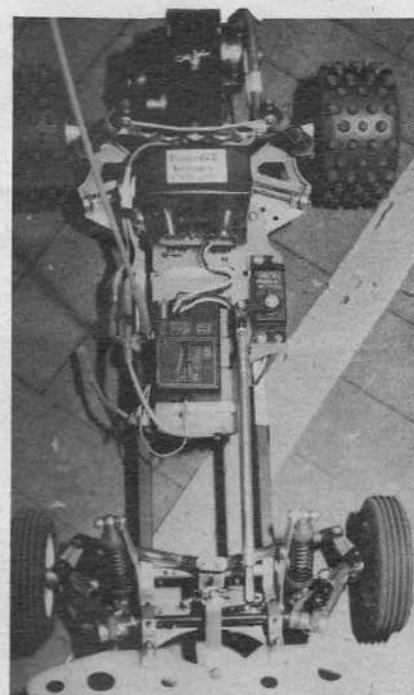
Above right: a man with something to smile about Gary Marsden, TMS Indoor National Off-Road Champion for 1985. Gary fought off a tremendous challenge from Andy Benson and Steven Haynes to win the 'A' Final. Right: the line up for the '540' Final.



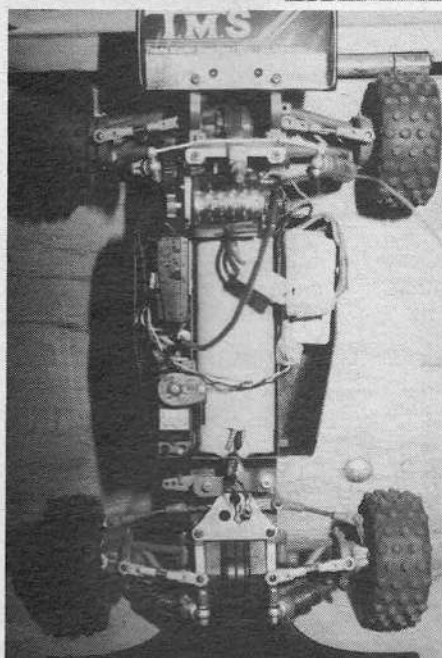
Left: the track carpet mats, floorboards and fire hose that went to make up this devious track. The raised hump and half empty pit area, time 8.30am! Above: Concourse winner Pete Waddington with the 'Gargoyle' body. Taken from a computer programme and a month's hard work.



Right: the sponsors: Trade Model Supplies of Leeds, Brian and Ann in front of their trade stand which kept the racers supplied all through the day. Below: the Championships winning modified Hirobo 4WD or Gary Marsden. Note the gear drive instead of belt drive. Race preparation and modification courtesy of father Tony.



Right: built from bits for something to race! Andy Benson's 'Scorpion.' Note steel tube steering parts and new 'Firefly GT' Buggy control. The car came first both days at Wembley but was only able to manage FTD and third in the A-Final here! Who says 2WD is dead! Below: what a team. The people without whom the day's racing couldn't have taken place. Race organiser Tim Fountain bottom centre was in good hands all day.



TMS 1st Indoor National Championships Results

540 Class

'A' Final

1. G. Marsden
2. S. Haines
3. A. Benson
4. R. Isherwood
5. J. Varley
6. J. Booth
7. N. Brown
8. S. Dunn

'B' Final

1. I. Odie
2. N. Ward
3. M. Patterson
4. A. Harland
5. P. Carrington
6. G. Peglar
7. N. Marshall
8. L. Harris

'C' Final

1. K. Blears
2. S. Marr
3. J. Skidmore
4. B. Spivey
5. M. Evans
6. P. Ward
7. P. Fox
8. S. Groves

'D' Final

1. D. Harris
2. C. Spicer
3. P. Smith
4. S. Johnson
5. P. Thompson
6. L. Gill
7. J. Harris
8. D. Batty

'E' Final

1. S. Butterick
2. M. Foster
3. S. Butterick
4. K. Chapman
5. C. Corser
6. S. Akeroyd
7. G. Brown
8. C. Insley

'F' Final

1. S. Benson
2. S. Hidden
3. M. Swift
4. P. Smith
5. P. Ladner
6. D. Whittle
7. C. Foster
8. C. Worthington

'G' Final

1. I. Littley
2. R. Thorne
3. M. J. Cooper
4. S. Mack
5. C. Holliday
6. M. Hinton
7. L. Wellstead
8. M. Jones

'H' Final

1. J. Green
2. P. Waddington
3. S. Parkin
4. P. Griffiths
5. G. Woodham
6. S. Werham
7. R. Luchier
8. S. Yeadon

'I' Final

1. R. Lainsdale
2. R. Oliver
3. D. Western
4. R. G. Flanagan
5. K. Wright
6. P. Angus
7. S. Hunt
8. J. Woodham

'J' Final

1. J. Barber
2. J. May

380 Class

'A' Final

1. K. Blears
2. N. Ward
3. P. Waddington
4. C. Insley
5. G. Brown
6. S. Johnstone
7. M. Wadsworth
8. D. Allan

'B' Final

1. C. Gill
2. D. Hull
3. K. Martin
4. P. Blakeley
5. M. Foster
6. S. Oakes
7. A. Hirst
8. J. Walter

540 FTD: A. Benson

380 FTD: K. Blears

Concours: P. Waddington

Furthest traveller: S. Wetham

Track Test

Associated RC10 Part 2

Following on from last month's feature we present our running report on the 'RC10'

First of all setting up the car

The instructions give the appropriate lengths of the track rods and upper suspension arm links and by following this neutral operation will be achieved. From here, on in it is basically a question of driver preference for the perfect set-up.

However, a couple of areas can be dealt with straight away. Angling the front wheels in slightly (toe-in) will increase the cars stability in a straight line. Too much toe-in however will actually reduce speed and wear out the front tyres quicker.

Another desirable feature that can be 'dialed in' into this car is negative camber. Negative camber is the inclination of the top of the wheel inwards. Slight negative camber will enhance the cars road-holding.

The 'RC10' kit contains two types of spring for the dampers, hard and soft.

Associated recommend hard springs on the front and soft on the rear to start off with. Personal preference plays a large part here, but there is one thing to make sure, the suspension must be very compliant so that the wheels will follow the undulations of the track rather than bounce over them.

The ball joints on the steering track rods and upper suspension arm links should last quite some time providing care is taken. Continually forcing them on or off will eventually result in wear and they will become a sloppy fit.

Finally, the kit doesn't include any protection for the motor and a suitable cover is needed to stop muck and stuff getting into the brush slots and bearings.

On the track

The first impression of the 'RC10' was an expected one — understeer. This is a usual characteristic for Associated cars and in my view an infinitely more preferable

one to oversteer. By dialling in some negative camber on the front wheels the car will get round the corner very nicely by applying the power early and causing the rear end to breakaway. Another noticeable characteristic is for the front suspension to dip very low. The anti-roll bar helps a great deal here as this stops excessive body roll and keeps both wheels in touch with the ground.

Tyre choice plays an important part in determining the cars handling, less grippy rear tyres will promote more steering and vice versa.

Adjustment of the differential is very simple — just set the compression of the spring so that the required amount of slip is achieved. Changing gear ratios is also easy and a lot more selective as small changes can be made due to the large number of different tooth size pinions available.

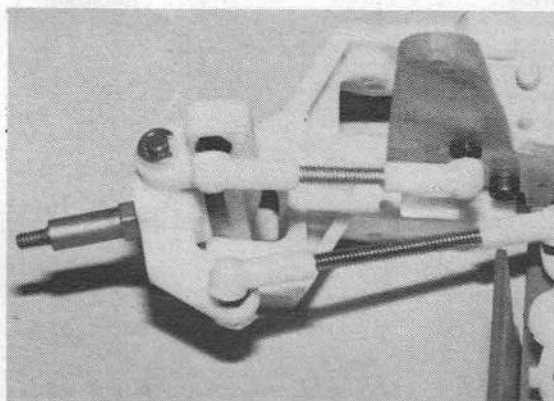
Straightline speed is dependant mainly upon the motor and *Ni-Cads* but the 'RC10' is no slouch, a tribute to the efficiency of the drive train and power to weight ratio. In standard form the 'RC10' should tip the scales at a reasonable 3¼lbs with some scope for further weight loss.

The basic impression is that this car will be as competitive as your driving skill will permit. My own personal opinion is that this is the car for me, as I like something which is robust, wear resistant and maintains its characteristics from week to week.

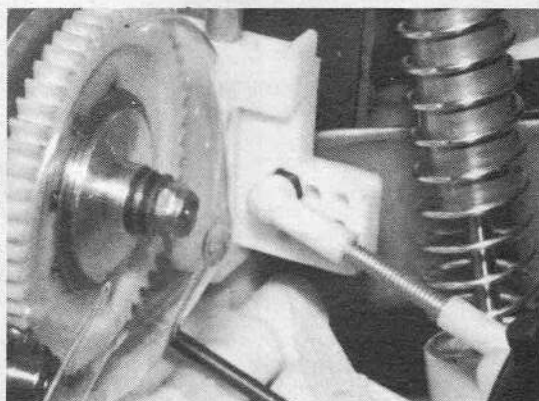
Lewis Eckett

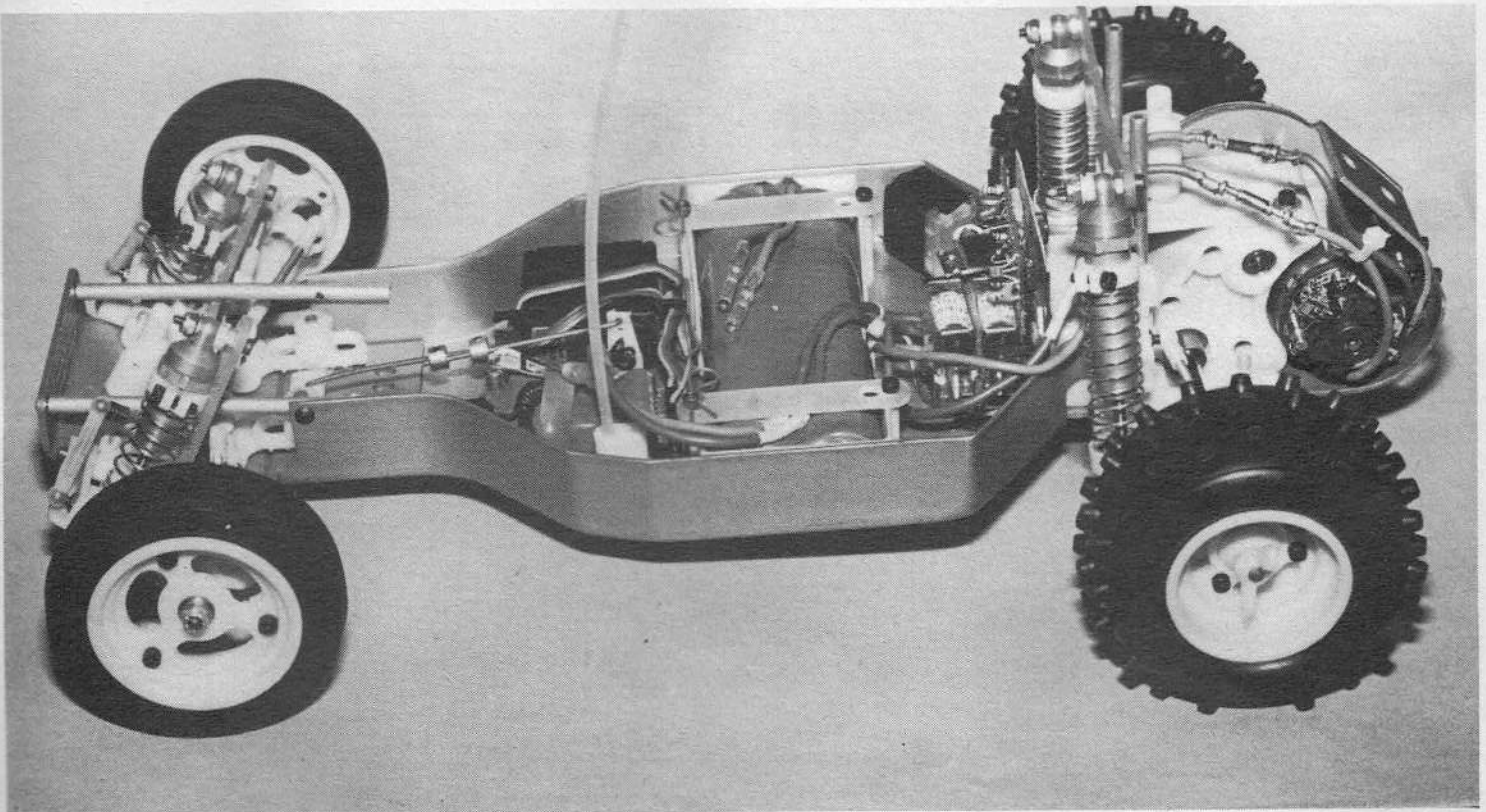


Below: the front upper arm links can be adjusted for different camber settings. To increase steering the links should be shortened to give negative camber.



Below: the same principle applies for the rear-end as the front for camber settings. On the rear the inner balljoint heads can be repositioned for the same effect.





Above: the completed 'RC10.' All the radio equipment is servo taped to the chassis. The Ni-Cad pack is retained within a moulded nylon box. This has now been removed and the Ni-Cads are kept in place using Velcro strip. The same Velcro is also used for the receiver and speed controller.

Model Cars Event Coupon

Name of Club.....

Competition Secretary.....

Address

.....

Tel. No.

Track Location.....

.....

.....

Class of Racing

Entry FeeDate(s) of Event.....

Event Specification.....

Facilities available.....

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.....

Fabulous FAV

Gear up for the war effort with the Tamiya 1/10th scale electric Fast Attack Vehicle



SOME TIME AGO I found myself browsing through a magazine covering full-size Military operations when I chanced upon an article concerning a new NATO development. The 'Fast Attack Vehicle' (FAV) struck me immediately as the ideal subject for an Off-Road racer.

The next thing I knew Tamiya had announced their latest release, an R/C Scale model of the NATO 'Fast Attack Vehicle'. Comparing the pictures of the full size with the model it's plain to see that Tamiya have done their homework and produced a very very close model replica.

The full size 'FAV' is

designed for very tough driving over almost anything, therefore by simulating the suspension in model form exceedingly good ride characteristics are obtained.

As with all Tamiya kits the contents and instructions are comprehensive and the construction simple.

However, before starting you must decide how you want your finished 'FAV' to look. Unlike most other electric buggy kits the body-shell in this kit is not a separate item. If you intend to paint the integral body in any reasonable scheme then you must make sure that the suspension parts and transmission system is not involved. The best way to do

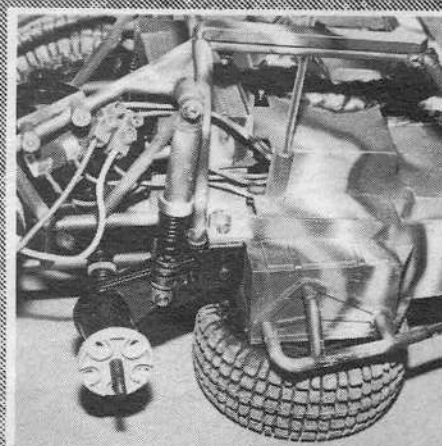
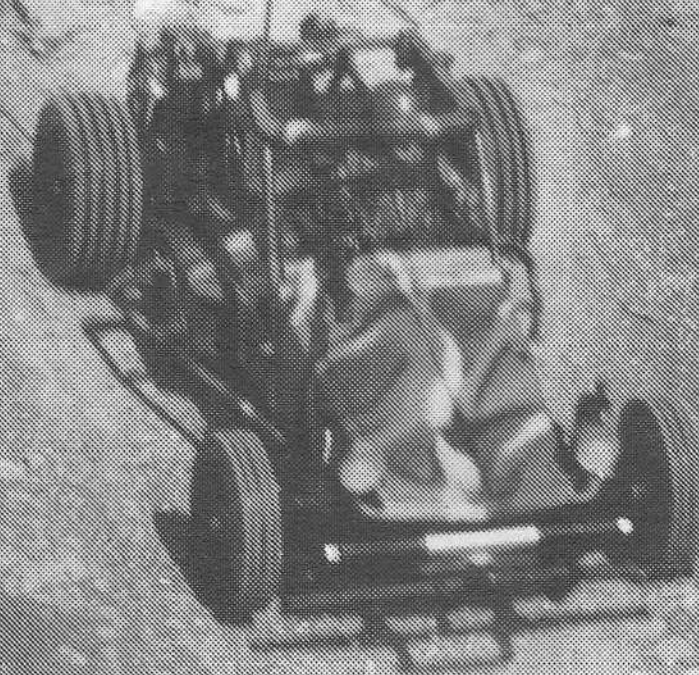
this is to assemble the car completely and then remove all the moving parts. You can then daub on the paint without messing up the vital parts. Make sure you remove the springs from the dampers and do not fit the tyres to the hubs.

The review car was painted by Ken Jones of 'Military Modelling' magazine who as you can see is a dab hand with the airbrush. Ken used Tamiya acrylic paints to simulate an accurate camouflage scheme.

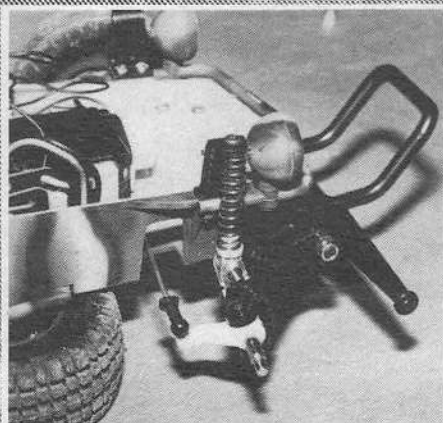
Finding a suitable, 'war-torn' racing venue turned out to be surprisingly easy — we went along to the local BMX track.

Thrashing the 'FAV' over the hard packed ground proved to be great fun. Just like it's full-size counterpart the FAV has an excellent power to weight ratio and thus good turn of speed. The short wheelbase makes cornering great fun, particularly with a loose ground layer.

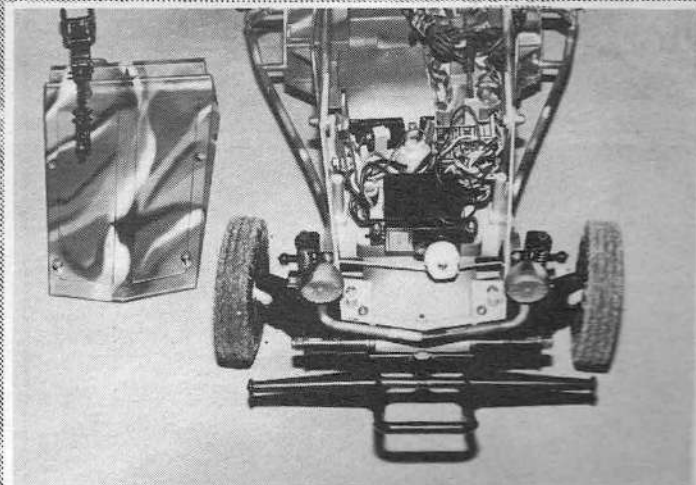
The 'FAV' has approximately an inch and half ground clearance to avoid stones and the like. Finally, the 'FAV' is an extremely tough little machine and ideal beginners cat. Available from toy and model shops. Approximate price £60.00.



Close up of the rear suspension to show shock absorber mounting. Once again these are simple coil spring units but some damping is achieved by rubber O-rings fitted onto the shaft. Note the very direct line of operation for the damper, same as on the full size vehicle.

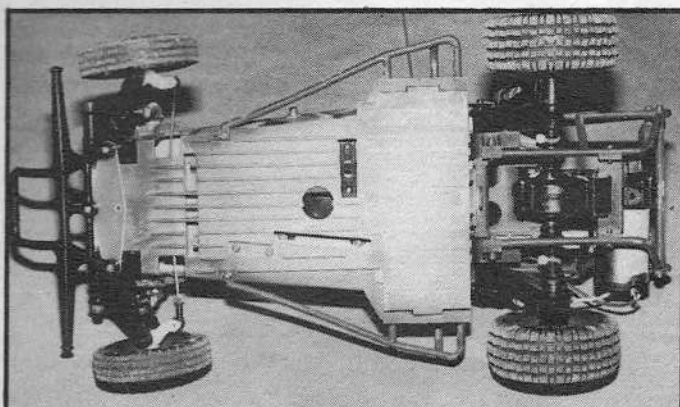


Close up of the front suspension. Simple coil spring shock absorbers control the movement whilst damping is achieved through the rubber tube fitted over the shaft. The upper damper mount is a pre-formed metal part, whilst the suspension arm is a chunky nylon injection moulding.

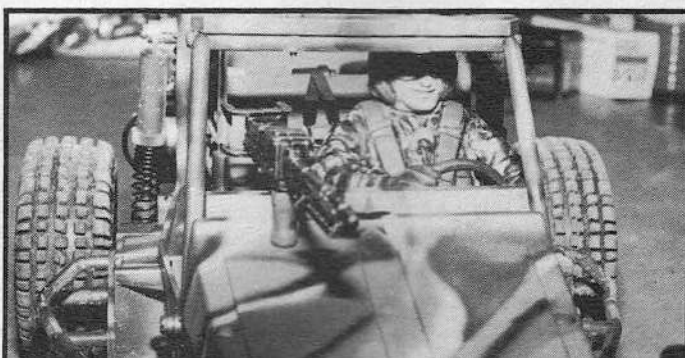


The steering servo sits within the main 'bath tub' chassis with steering linkages exiting through side cut-outs. The top chassis deck doubles as a bodyshell component and protection for the radio control equipment.

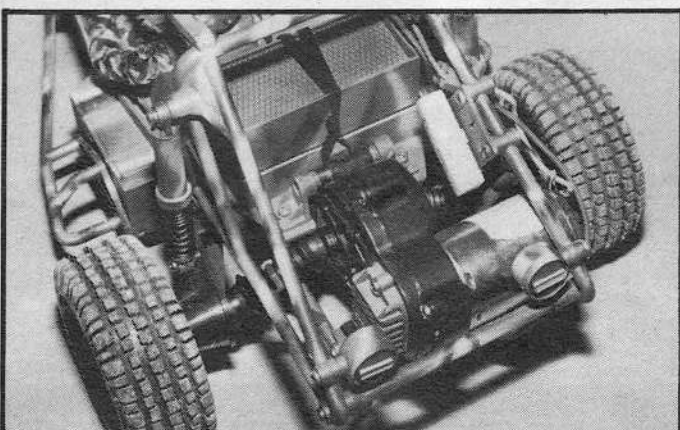
Fabulous FAV



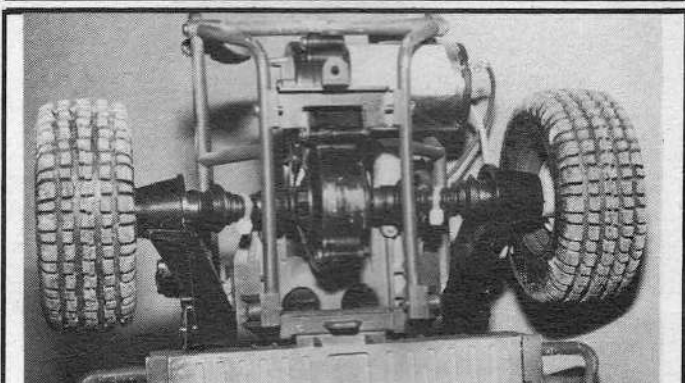
Above: a view from underneath the chassis to show the one-piece 'bathtub' chassis. Just right of the radio switch is the Ni-Cad battery pack compartment. With the lid removed the Ni-Cads can be removed and replaced quickly and easily.



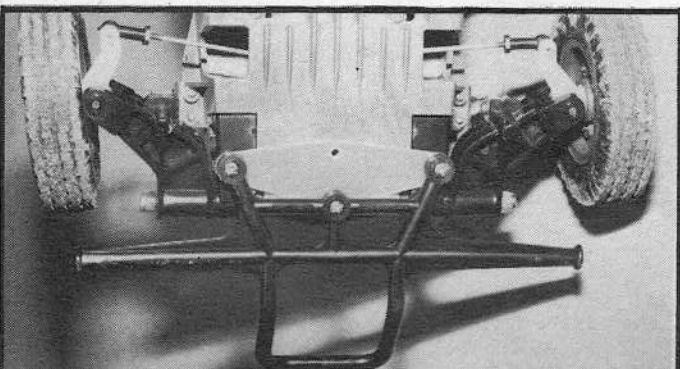
Above: Ken Jones also made an excellent job of the driver figure who is kitted out in modern US Army fatigues in camouflage colour scheme. The FAV should have a passenger to fire the gun.



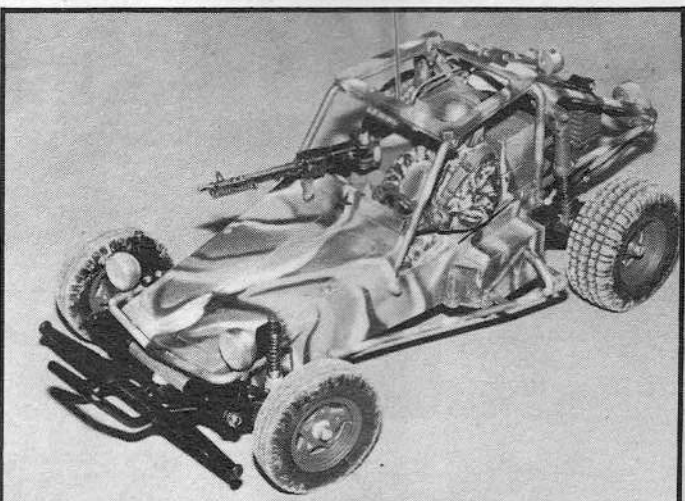
Above: close up of the gearbox. A '540' size motor is included in the kit with two choices of gear ratio (high and low). The gearbox is fitted with Tamiya's usual plastic bevel geared differential.



Above: underneath the rear suspension and gearbox. The drive shafts between gearbox and suspension arms are protected by rubber 'boots' to stop grit and dirt wearing away the joints.



Above: underneath the front suspension. The bumper is easily the most susceptible part to damage. Replacement or alternative parts are easily available.



Above: the completed FAV in scale camouflage colour scheme and ready for manoeuvres.

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All deals include the buggy, 2-ch. radio control, rechargeable drive battery (saft) and either mains slow charger or 12v fast charge lead (please state which charger you require). All deals are also available with the higher power Tamiya/Sanyo drive batteries, approx. £6 extra.	
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CRP 1536 Kyosho rear shock adaptor. Allows the use of the more efficient larger Kyosho shocks on the rear	£5.50
1516 Kyosho coil over with two sets of springs (silver-light gold-heavy) to fit CB88/89 shocks	pair £11.95
1517 Shock rebuild kit for CB88/89 shocks, comes with "O" rings, brass retainer and Teflon piston	£5.50
1527 Kyosho adjustable coil over. Set of 4 springs and adjustable brackets. (Fits standard kit shocks)	£10.95
1529 Shock "O" rings for Tamiya Kyosho shocks, packet 8	£1.95
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1706 Scorpion, Rear axle assembly with 1/2 shaft, adjustable length (no slop)	£19.99
MRP All parts for Scorpion/Tomahawk, Kydex front bumper	£3.99
Front Crossbar tubular steel	£5.50
Crossbar hold down clamps	£1.99
Front suspension arm locating hub	£2.99
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Replacement front end kit complete	£24.99
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M.R.P. — Continued	
Rear suspension arm	£6.99
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Thorpe Diff for Scorpion	£59.95

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HOWES RACING 28T, 1/10th Buggy	£9.95
HOWES RACING modified, 1/10th Buggy motor	£21.95
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Brush springs, pair	£1.25
MABUCHI	
RS540, 30T	£4.65
Tamiya RS540S, 27T	£8.99
RS540S, 25T	£5.95
HOWES RACING RS540S, 27T Buggy motor	£7.95
HOWES RACING RS540S, 25T Buggy motor	£6.95
Tamiya RS540SD, Black endurance motor	£18.99
Tamiya RS540SD, Black sprint motor	£18.99
Tamiya RX-540SD, Technipower	£29.99
Brush set (for above)	£2.65
Armature (for above)	£6.50
IGARASHI	
HOWES RACING, 35T, 1/12th	£4.99
Jerobee, 35T, 1/12th	£7.50
MRP 550, 5T, 1/12th	£6.50
Parma Renault Turbo, 35T	£8.75
Parma Lotus, (mod.) SALE	£9.00
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British Radio
Car Association



The National organising body for R/C Racing

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Full members may now enrol any additional of their immediate families for the attractive fee of £1 per head. Family membership benefits including Insurance and the right to enter BRCA race meetings. Only one copy of the newsletter and handbook will be sent to each family. Family membership does not include voting rights.

How to join

Contact the Membership Secretary, 6 Park Way, Queensbury, Bradford, W. Yorks. BD13 2HJ.

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That Sordid Topic

The sordid topic of coin — or money, pure and simple, has been circulating in European racing circles recently. In particular at a recent IFMAR meeting held in Paris where the subject of cash prizes was raised. Apparently the French Federation has already voted in favour of the idea and now it only remains for IFMAR to condone the practice for race organisers to start offering the 'readies' to help promote their meetings.

So now we see the ultimate step being taken to



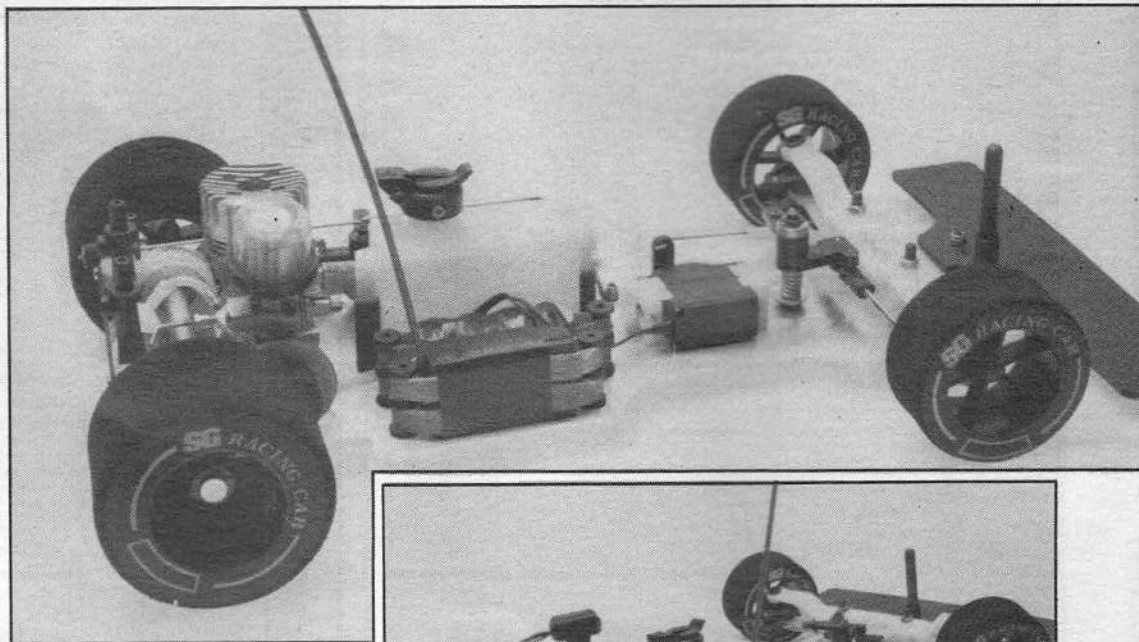
1/8th Formula 1

More news and views on the IC circuit racing scene at home and abroad from Lewis Eckett

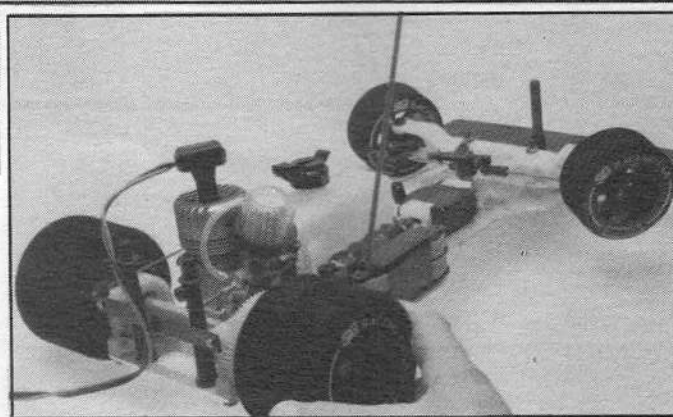
exactly mirror the full-size racing world in 1/8th Scale. We already have competing manufacturers; works teams, sponsorship; high technology; is prize money really necessary?

To be fair there are two sides to the argument. The race organisers of large events say that the awarding of cash prizes will create greater media exposure. More media coverage, greater promotion of the hobby (if you can still call it a hobby).

However, how much money are we talking about? Is anyone going to be interested in a model car race with a hundred quid first prize? Hardly; a thousand might be closer to the mark. And who's going to win this money? Well, we all know who; the same drivers who have been at the top of European 1/8th Scale circuit racing scene for the last five years. Only now — they get to make some money out of it. I don't know about you but to me it all sounds a bit incestuous. The race organisers might well



Above and right: the SG 'Prima,' classic formula, 1/8th scale racer. Ultra simple design and operation has paid dividends for SG in Italy. The possibilities of seeing the car in numbers in the UK are slim however.



be promoting model car racing but obviously they must have to recoup their losses to cover overheads. If sponsors are found for the cash prizes then the money is only going into the pocket of a driver who's racing is almost certainly subsidised by a kit or engine manufacturer. Could that money be used elsewhere?

membership total by 80% in the process.

'Classic' cars are simple, low cost, flat chassis machines of the type being raced five years or so ago before the advent of suspension cars. So popular has this formula been in Italy that the great Italian kit manufacturer *SG Racing* have introduced a new car,

3rd. Lets hope for a glorious summer.

Unfortunately, in the April issue of 'Model Cars' I messed up the LRC Secretary's address so here it is again.

John Daniels, 18 Brooklyn Road, South Norwood, London SE25 4NH. Tel: 01-656-8804.

A correction to the

to the Far East. Details are as follows.

TOUR A 13 DAY/11 NIGHT - JAPAN ONLY

SATURDAY 20 JULY 1985

Depart from London Heathrow, Paris Charles de Gaulle, Zurich and Frankfurt Airports, on scheduled Japan Air Lines services to Tokyo.

SUNDAY 21 JULY

Arrive at Tokyo Narita Airport. On arrival the group will be met by a representative of our agents in Japan, Japan Travel Bureau, and transferred to the Tokyo Marunouchi Hotel for 11 nights accommodation.

MONDAY 22 JULY AND TUESDAY 23 JULY

At leisure in Tokyo or attend the Committee Meetings for the Radio Controlled Car World Championships. Accommodation at the Marunouchi Hotel.



Above: the London RCC super-smooth, super-quick sweeper at the end of the main straight. Below: another view of the track this time the hairpin situated in front of the drivers' rostrum.

To create better facilities? Cut down accommodation costs and so on.

Finally, the most important question — sportsmanship. Already in major European and World events there is the hint of skulduggery behind the scenes (*Whoops! I seem to have left my transmitter switched on — oh dear*). With a substantial cash prize riding on the outcome perhaps certain partisan drivers might become even more forgetful?

R/C Model car racing is, at present a hobby come sport. If the hobby aspect were to disappear totally I don't think there would be any benefit whatsoever.

Remember its not the winning that's important but the taking part.

The 'Classic' answer

In last months 'Nuremberg Car Show' report we made brief mention of the Italian racing Federations (AMSCI) success with their low cost racing formula.

The 'Classic' formula was intended as an introductory racing class but has now become much more and increased the AMSCI

the 'Prima'. A further indication of the popularity of 'Classic' racing is that SG have discontinued kit production of 'Columbia Mk2's' which only leaves the 'Prima' and 'Columbia Mk 4WD'.

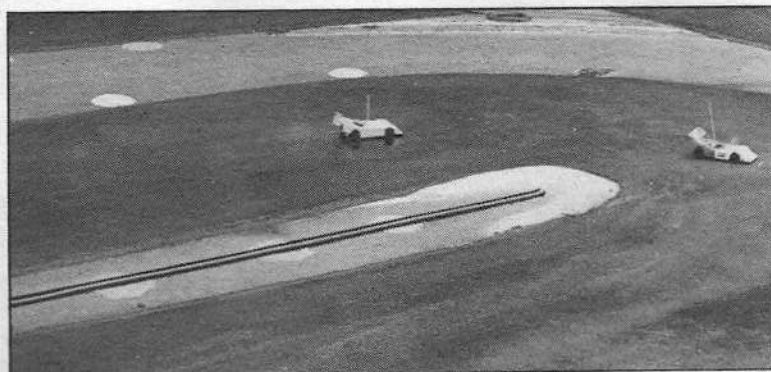
Other countries also continue to hang onto the low-cost racing idea. America, France, Japan. But not us — oh no! We're quite content to watch the costs go up, numbers go down with no sign of a let up.

What's the answer? You tell me!

London Smoothies

Excessive tyre wear will be a thing of the past at Crystal Palace home of the London Radio Car Club, for the track has recently been re-surfaced. Even better news is that the super-smooth asphalt has been paid for by a Greater London Council grant (and just in the nick of time too!)

The re-surface only covers the track and the track markers and barriers has yet to be included. Nevertheless racing has taken place albeit in atrocious weather on March



London Sports Car Championship calendar should also be made. The August 4th date should be changed to August 18th.

Finally, on June 9th there will be a combined 12th and 1/8th scale race meeting sponsored by *Tru-Tyres*.

Ted's Tours

As we all know the 1/8th scale circuit racing world champs will be happening this year in Japan on 24th — 31st July next to the *Disneyland Centre* near Tokyo. We also know that getting to Japan will be expensive — very expensive. But all is not lost as the enterprising Ted Longshaw has worked out two package tours for a trip

THURSDAY 01 AUGUST
Morning at leisure in Tokyo. Late afternoon transfer to Tokyo Narita Airport to connect with scheduled Japan Air Lines flights to Europe.

FRIDAY 02 AUGUST
Early morning arrival at European Airports.

TOUR B 17 DAY/15 NIGHT - JAPAN, HONG KONG AND BANGKOK

SATURDAY 20 JULY - WEDNESDAY 31 JULY 1985

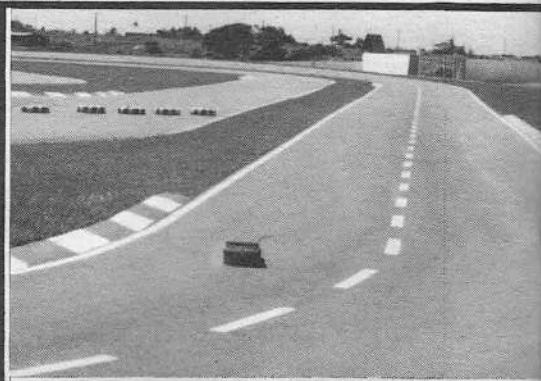
Same itinerary as Tour A
THURSDAY 01 AUGUST
Check out of the Marunouchi Hotel and transfer to Tokyo Narita Airport to connect with a

Chequered Flag



Above: the GO INTL - Delta team of Brazil. Left Peter Gogarten. Right - Alex Kemeas with their cars at the Vitoria Espirito Santo Circuit.

Below: high banking characterises this Brazilian circuit and must provide spectacular action if something goes wrong!



Above: a view down the main straights. The track can be used as one gigantic oval.

scheduled flight to Hong Kong. On arrival in Hong Kong the group will be met and transferred to the Regal Meridien Hotel for two nights' accommodation.

FRIDAY 02 AUGUST

At leisure in Hong Kong. Overnight accommodation at the Regal Meridien Hotel.

SATURDAY 03 AUGUST

Check out of the Regal Meridien Hotel and transfer to Hong Kong Airport to connect with a scheduled

flight to Bangkok. On arrival the group will be met and transferred to the Montien Hotel for two nights' accommodation.

SUNDAY 04 AUGUST

At leisure in Bangkok. Overnight accommodation at the Montien Hotel.

MONDAY 05 AUGUST

Check out of the Montien Hotel and transfer to Bangkok Airport in time for a scheduled flight to Europe.

TOUR A

Ex London
Ex Paris
Ex Zurich
Ex Frankfurt
Ex Rome

Sharing Twin Room

UKL 1011
FFR 12419
SFR 3395
DMK 4073
Lira 2418000

Single Room

UKL1230
FFR 14835
SFR 4074
DMK 4866
2908000

TOUR B

Ex London
Ex Paris
Ex Zurich
Ex Frankfurt
Roma

UKL 1238
FFR 14835
SFR 4019
DMK 5071
NRA 2753000

UKL 1570
FFR 18495
SFR 5048
DMK 6274
3497000

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GOLDEN EAGLE**
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Deal Price £94.50

MARUI HUNTER
Kit Price £51.50
Deal Price £114.50

KYOSHO PROGRESS
Kit Price £94.50
Deal Price £154.50

KYOSHO TOMAHAWK
Kit Price £77.50
Deal Price £137.50

(Deal prices include kit, radio
slow charger and drive battery)

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LONDON N12 0NL. Hotline: 01-445-6531**



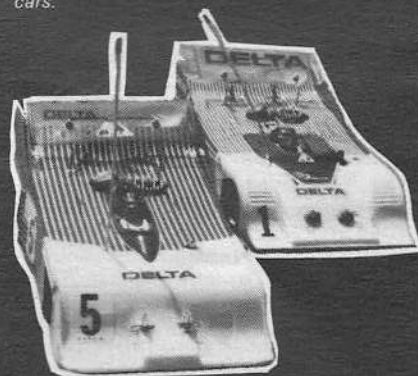
Brazilian racing news

The first of the 1985 Championship was held on February 3rd at a privately owned racing facility in Vitoria Espirito Santo. Results:

1. 'Chico' Carillo SG/OPS
2. Leo B. Leite SG/OPS
3. Paulo 'Smile' SG/OPS
4. Marcos SG/Picco
5. Alex Kemeses Delta/Picco



Left: another general view of the circuit whilst below: a closer look at the team Delta cars.



TUESDAY 06 AUGUST
Morning arrival at European Airports.

All the prices are based on a minimum booking of 30 people and obviously Ted wants to know as soon as possible if you want to make the trip. Modifications can be made to the length of stay and stop-over points. Give Ted a call on (0689) 55313.

Team Great Britain

Six places have been allocated to Great Britain for the Japan World Championships but as you can imagine the BRCA Teams Officer hasn't exactly been inundated with requests for places. However, Bob Errington and Steve White have said yes so at least the U.K. National Champion and European Champion will be attending.

Five other drivers have said they might be interested — Phil Greeno, Mick Drury, Gary Culver, Debbie Preston and Paul Pagdin. If this turns out to be the actual team then we will be very well represented.

For the European Sports/GT Championships on June 14 — 16th at Heemstede, Holland the team situation is much healthier. At present only two places are left to be

filled. The list so far is as follows:

Bob Errington	Paul Pagdin
Steve White	Paul Cook
Chris White	Walt Bailey
Phil Greeno	Charlie Dudfield
Colin Strauss	Nigel Sales
Phil Hague	Andy Stafford

Here's hoping that the European Champion title once again comes our way. ☐

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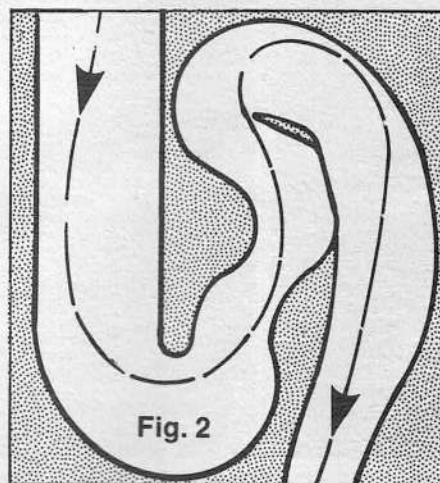
MARDAVE R/C RACING, 7 HEANOR STREET, SANVEY GATE, LEICESTER. Tel: 0533 24701

RACING 1/12th SCALE cars is a technical hobby, but the fundamentals should be within most people's grasp. One of the essential fundamentals is a correct approach to driving. You can have the best motor, the best cells, the best tyres and so forth, but if you drive like a wally then you'll make A-Finals every third blue moon in a leap year. Although we all have our place in life (and A-Finals!) it is possible to improve one's lot by using new techniques. I refer particularly to cornering habits, or lack of them. The point is that there is a limit to cornering speeds and none of us can defy the laws of friction. Whilst the distance between two points is a straight line, the shortest, fastest way

must slow down, consider the next piece of circuit. **Fig. 2** is a popular track configuration, the bend followed by a chicane.

The trick is to straighten out the bends as much as possible, particularly the chicane. The approach is a sweep-in followed by a tight turn which leaves the car pointing almost straight through the chicane. As soon as the apex of the chicane is reached turn the car towards the next corner and accelerate in a gentle curve toward the next straight.

If you take time to watch the really good people you will find that they tend to slow down for corners early, start the corner as soon as possible and pass very close to the hose or dot with



Driving yourself round the bend

Pete Winton, (ace driver that he is) outlines the correct approach to taking corners

between two points is that which deviates least from a straight line. Consider the simplest 90 degree bend as shown in **Fig. 1**. The shortest route is the dotted line. The longest route is round the outside, but because the radius of the turn is greater (i.e. less deviation from the straight line) the speed is higher.

However by taking a line between the two, we create a route with an even larger radius, that is less deviation from a straight line. This is the fastest way round a corner. The aim is to keep as high a speed as possible, but if you

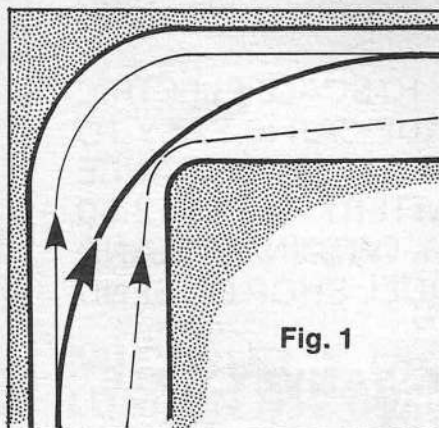
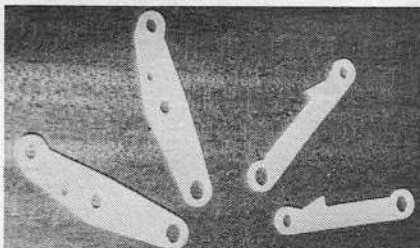
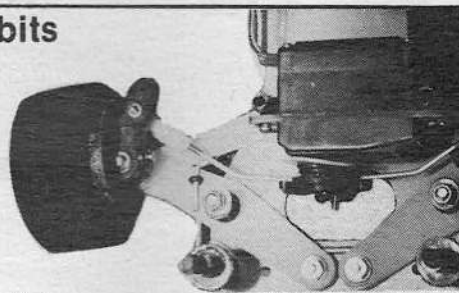


Fig. 1

Schumacher GRP . . er — bits



Cecil Schumacher has been hard at work on his computer milling machine and produced these new GRP wishbone parts for the 'C-Car.' These composite wishbones have been designed to eliminate the flex found in the one-piece items. With no flex the spring now does all the work. Price: £3.20.

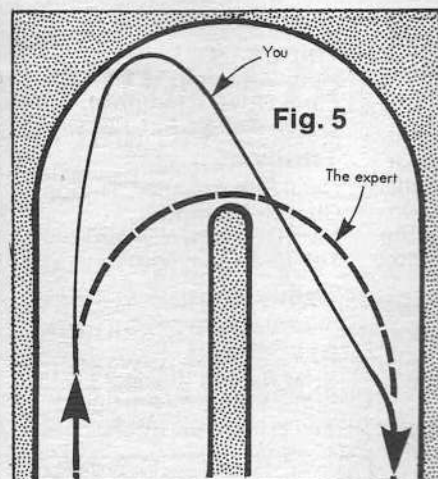
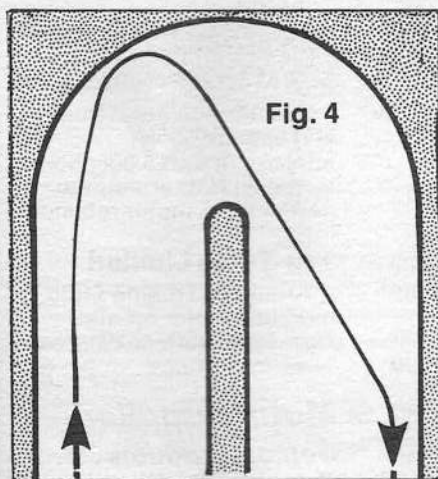
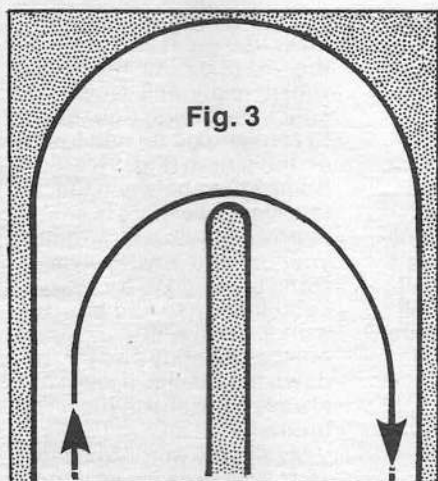


maximum acceleration. **Fig. 3** shows roughly the correct line.

Many of you drive too fast and go very wide, giving your pursuer ample time to go inside and take the line. **Fig. 4** shows the 'average' line. If you superimpose 3 and 4 you will see why so many people get inside you. Remember though that if someone does that, there is no point in 'shutting

the door'. It is much too late and very bad racing etiquette. Once your pursuer has his car inside yours at a corner then you have to give way and try again at the next corner!

The technique is to slow up early turn in cleanly and get as close to the hoses as you can. Then apply power as early as possible and get onto the next straight as fast as you can. Those



of you screaming up to a corner then worrying about getting round must think that the 'Road Runner' cartoon (where he stops dead) is real!

It is important to remember that golden rule. Slow in, fast out. It has served Jackie Stewart, James Hunt and Niki Lauda very well. Some parts of a circuit will be best taken slowly and tight round the track markers rather than trying to go too fast and jeopardising the line for the next bit.

JUNE 1985

BRCA News

At the Leicester Post House on February 4 last, the 1/12th section committee met for the first time under new secretary Bill Jones. The meeting was short and the following topics were discussed.

The European Championship Team was selected from the top 50 of a combined National Points Table compiled by Steve Haywood. As the title suggests, Steve added the points scored in the Modified and Standard classes together, and came up with a top 50. The only matter for debate was whether people could attend. We have always won the event, and the depth of driving talent in the UK is enormous, far outstripping the rest of Europe put together. The team is made up of the 17 allocated places, and some reserves.

1985 British team for Norway Eurochamps April 26/27/28 1985

P. Olson (1984 Eurochamp)	J. Davis
A. Dobson	P. Davies
L. Pipe	A. Benson
F. Smart	M. Booth
D. Gale	A. Wells
C. Arnold	T. Dakin
G. Peglar	W. Jones
P. Jones	T. Biggs
N. Adams	

Reserves

S. Haywood	A. Blakeman
P. Riley	P. Farmer
P. Hobbs	L. Raybold
P. Winton	

The price is right . . ?

The price of items for which the BRCA sets a limit was also discussed. In the light of the increasing strength of the dollar, it is becoming difficult for the importers to sell these parts to the trade and leave sufficient mark up for the shops to afford to sell them. This could mean that you would be unable to buy these goods from a local shop, and would have to send for them on mail order, decreasing model shop revenue (and eventually model shops), and increasing your costs and

inconvenience. It was agreed to keep the modified motor and cell price the same, but to allow a £1.00 increase (to £10.00) in the price of the Standard motor.

In this writers opinion even that is not enough if one looks back over the prices and the exchange rates, £15.00 would be nearer the mark. Unfortunately at that price there is every chance that no-one would buy a standard motor any more, thus bringing even small revenues to a total stop! Catch 22!

The meeting was advised that the proposed Competition Licence was now available, and current members not due to renew their subscription for some time could obtain one from the BRCA Secretary (Jeff Lindstrom, 6 Parkway, Queensbury, Bradford, W. Yorks., BO13 2HJ).

The licence is a very smart affair, and will certainly be an attraction to the youngsters joining for the first time. They will be able to show all their mates that they have a licence to drive in BRCA competitions.

The National Calendar is still not complete as we go to press (shades of Formula 1), but this is not because Watford or East Midlands have failed to agree television rights with the BRCA! To allow sufficient meetings of points scoring status, the end of year Grand Prix at Stafford will now count for points, and Cecil Schumacher is to put on a National at Northampton. The dates and venues are as follows:

March 30/31 Washington
April 20/21 Stafford
May 25/26 Chesterfield
July Watford
July East Midlands
September 14/15 Derby
October 5/6 Northampton
October 26/27 Leicester
October Runcorn
November 16/17 Stafford GP

Model Cars will carry the full list as it is amended during the first part of the year.

I hope to see as many of you as possible at the National and League events throughout the year, at grave risk to life and limb you are invited over for a chat at my pit anytime.

Bolink 'Bandito'

Bolink Industries of the USA have produced this latest competition 1/12th scale racer to take on the likes of Associated, Delta etc. 'Model Cars' will be track testing the 'Bandito' in a future issue.



On The Carpet

IN THIS LAST part of the feature on motors, we will look at ways of breathing life into old standards so as to have available a decent club motor. Before we get into the details, let's have a look at the theory of standard class motors.

All 1/12th scale standard (or stock as the Yanks say) motors have an armature wound with 35 turns of 23swg copper wire. The original 'standard' motor was the *Mabuchi* 540S which was used by the majority of Japanese

number of drivers. Not those you might expect, but some of those you definitely would not, until you saw their qualifying positions. This has thrown standard class into disrepute, and it is time something was found to replace it. Many people favour using the standard 35 turn armature, but allowing full balancing and commutator truing. This certainly gives far more equal performance, and increases longevity of bearings and brushes.

The only person doing a

from the brushes then stop the motor. Because the commutators are not the same the brushes must bed in again. To avoid the sparking and subsequent damage to the commutator, run the motor under water for 15 seconds (if it has bronze bearings) or on only three cells for 20 minutes (yes, minutes) if it has ball bearings. You can run ball bearing motors under water, but the bearings must be completely dismantled (shields as well) immediately afterwards and

about 40 to 42mm/rev and away you go. If you get the rest of it right, the car will go really well. Now knock the timing right back to zero and go up one tooth on the pinion (**Fig. 3**). Somewhere between the two extremes there is a happy medium which suits your car and driving style. Don't be afraid to try every combination to find one that works. Keep a little notebook handy and jot down the results, it will always be useful in the future.

My results were excellent and I now have a new motor for around £6.00.

DIY Motor-ist

More hints and tips on maintaining your motors

manufacturers. The English manufacturers *Mardave* and *Lectricar* followed suit.

(Note that this is not a 35 turn motor). Later on, the *Astro* '05' became the motor to have, and this led to the general acceptance of a 35 turn *Igorashi* '05' as the BRCA standard class motor for 1/12th scale. Then along came the *Yokomo* '05' in 1983 to join the *Igorashi* as an approved motor. The *Yokomo* allows brush replacement and the cleaning of the commutator, but no timing adjustment. Because they are manufactured in hundreds of thousands, primarily for use in 12 volt appliances (car vacuums, tyre pumps, etc.), the motors are made on a production line where the manufacturing tolerances vary greatly between individual motors. Thus armature balance and commutator runout can vary considerably and this is why standard class motor performance can range between 'kennell quality' and real fliers.

At BRCA National Championships meetings there is very strict adherence to the rules concerning standard class

motors. Particularly the following, "Only unopened motors are allowed."

Obviously this severely limits the amount of legal modifications that can be made to the motor. Also there is an approved manufacturers motors list which specifies the legal motors. For normal club racing however these rules are not strictly enforced.

There is insufficient evidence to name names but it is clear that 'hand-built' standard motors are available to a certain complete balancing/commutator truing and rebuild service (that I know) is *MG Model Products*. I sent off an old *Yokomo* standard armature and an *Igorashi* '05' (*Reedy*) motor complete.

The results are most encouraging. The *Reedy* is slightly improved and runs smoother than before. I'm still trying to work out a reasonable ratio for it, but the signs are good.

Due to the wide disparity in standard motor performance, the clubs I race at have all abandoned this class for club nights. Not wishing to wear out expensive modified motors,

I installed the *Yokomo* armature into a ball-raced can in place of a *Reedy* double wind. To do this follow the previous instructions for removal and refitting of an armature. To store the old arm with its spacers intact, put a 1/8 in. id O ring on each end of the armature. (**Fig. 1**). The ones for the *Schumacher* rear-end tweak adjuster are just the job. Replace everything in the same set-up as the modified. Connect the motor to a set of cells and run it. If there is sparking then washed out in lighter fuel and retreated with *Triflon* or oil.

Now reconnect the motor to the cells and with a small screwdriver press lightly on each brush in turn whilst the motor is running. If the motor speed slows, the correct spring tension is being used. If the motor speeds up, then the tension must be increased. To achieve this remove the spring and increase the inclusive angle between the long and short arms of the spring (**Fig. 2**).

Once this is correctly set it is time to experiment. Loosen the end bell, and apply about 30° of timing advance (really!). Gear at

Services

MG Model Products

Armature rebuild (true and balance) cost, approximately £5.00, phone to check. New armatures, new motors, motor rebuilds.

Tru-Tyres Limited

Armature Trueing £1.50, modified motor rebuilds from £5.00, new armatures — various prices.

Motor suppliers

Demon Products

79 Northumberland Avenue, N. Harrow, Middx., HA2 7RA. Tel: 01-866 5945.

Parma

Helgar Racing, 18 Manor Farm Drive, Chingford, Essex. Tel: 01-524-3611.

Trinity

Cecil Schumacher, 'Rudge,' Church Brampton, Northampton, NN6 8AU. Tel: (0604) 842320.

Tamiya

Riko stockists.

Associated

SRM Racing (0329) 233945. Elite Models (0623) 36062. Ted Longshaw (0689) 55313.

Fig. 1

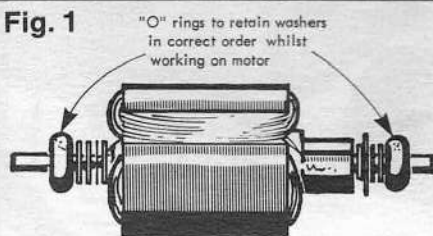


Fig. 2

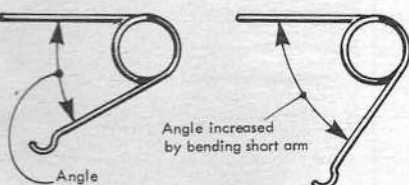
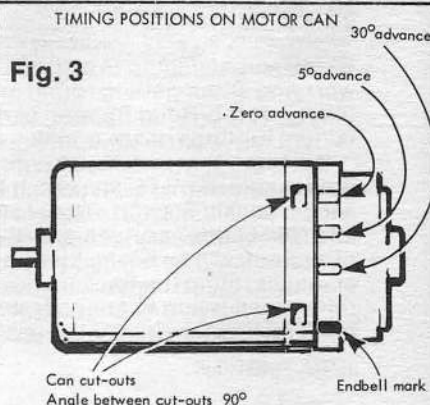


Fig. 3





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Not package deals MARDAVE Apache	£52.00



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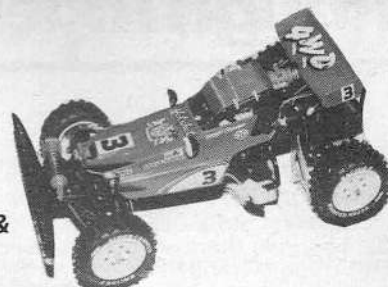
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A-A's

Sub C's

C's

D's

PP3's

Vanson Charger

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Jester Battery Ends

Heatsink

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Plus Large Stocks of T.M.S.

All Acoms chargers & batteries & R/C spares in stock.

Tamiya Body carb. Paints

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Foreign parts

In spite of the heading, this is not the clue to a secret store of *Garbo* spares! This year there are quite a rash of EFRA Buggy Grand Prix planned and a holiday already planned with a small detour or even a special trip could see you racing with the best of the European drivers on an exciting foreign circuit. A number of UK drivers already plan to visit the nearer GP's so you won't even of necessity be alone. If you are interested in going Dutch, or French, maybe Italian then this is what you do.

First join the BRCA (British Radio Car Association) and you will then be able to obtain the necessary International License and appropriate entry forms for the event. These forms are sent to the BRCA 6 to 7 weeks in advance of the race and must be returned within a stipulated time limit. Then, all you have to do is fill in the form, send it off with the appropriate fee (usually in Swiss Francs, get them from your bank) and turn up on the day. Simple isn't it?

years and the 4-stroke could be a total solution to this problem. In larger capacities the fact that the engine operates on the 4-stroke principle does not necessarily imply quietness, but the small capacity *HP* is very quiet. For internal details see **Figs. 1 & 2**.

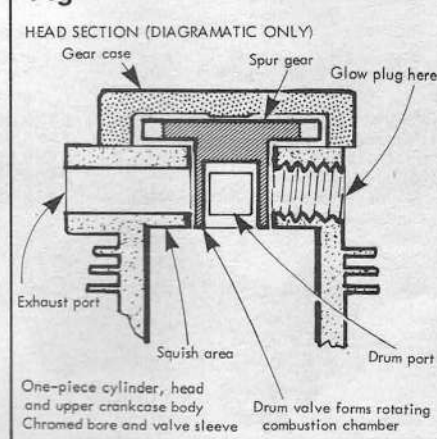
Fuel consumption of any 4-stroke is low, the *HP* is no exception so although the initial purchase cost may be a little more, the ongoing costs will be lower. Most 4-strokes are best operated on very low or even no nitro content in the fuels. The lower operating temperatures and the fact that the bottom end of the motor is not being continually flushed out with clean fuel and oil means that acid by-products of combustion remain in the crankcase to corrode the parts very quickly when the motor is not in use.

It could well be that gear ratios of existing Buggies will not suit the lower operating rpm's of the 4-stroke motor although the *HP* with its rotary valve gear is one of the highest revving 4-strokes so far produced. Finally on the negative side, the power output of the

4-stroke is quite a lot lower than a 2-stroke of the same capacity.

Any rule change to allow acceptance of the *HP* and other motors like it will have to be specific to 4-strokes, there is no reason for a blanket increase in engine capacity at all. What is surprising is that the manufacturer should choose the

Fig. 1



1/8th Off-Road

Bill Burkinshaw assesses the new developments for IC buggy racers

It is probably a good idea to speak to the BRCA Off-Road Secretary before planning a trip, he might know of someone else who is going to the meeting you have selected. Telephone Steve Marr on Wakefield 864396

Four-stroke fun

The introduction of the *HP* 25VT rotary valve 4-stroke engine to the R/C car and Buggy market could present one or two problems for both national and international organisers. Certainly the distributors, in the case of the UK, *Ripmax Models*, will be keen to see the motor eligible for racing and from some points of view early adoption could have positive benefits. Why should there be any question as to its eligibility? Well quite simply it is of too large a cubic capacity to conform to the rules which stipulate a maximum engine capacity of 0.21cu.in. It is not reasonable to simply change the rules without proper democratic consultation.

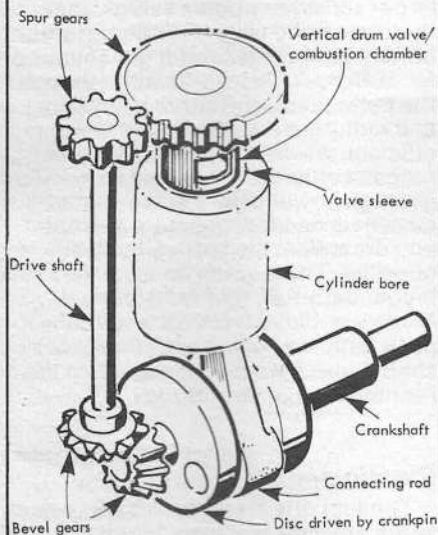
On the positive side, the *HP* is very quiet, noise levels have been rising alarmingly during the past couple of



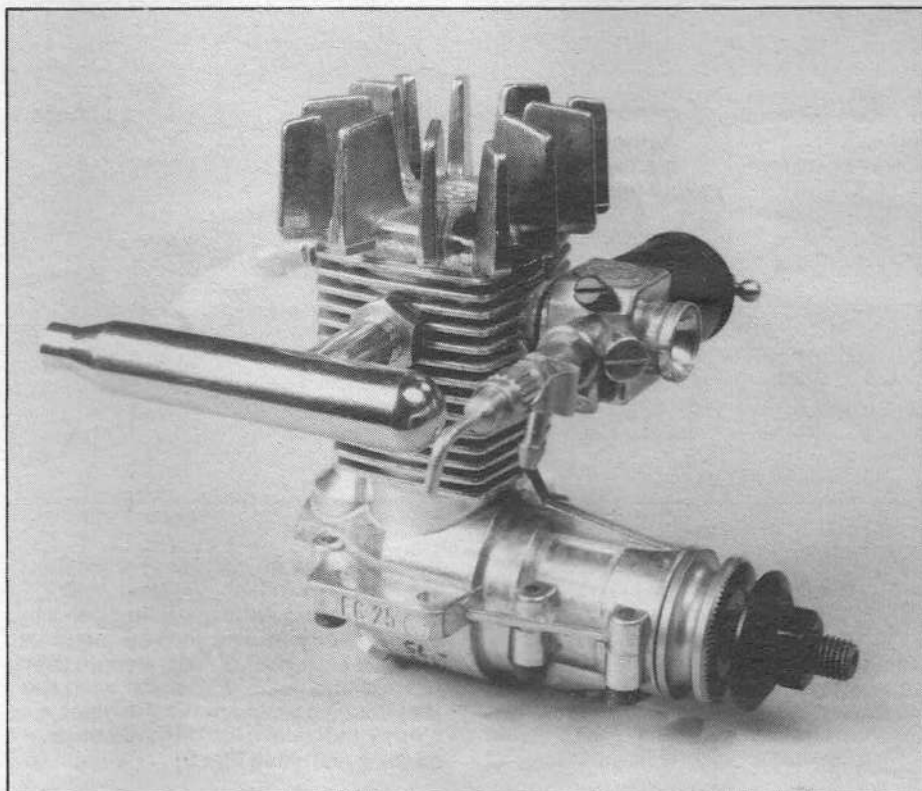
MODEL CARS

Fig. 2

VALVE DRIVE SYSTEM



0.25cu.in. capacity in the first place. Agreed the power will be down but I would have thought that a little development could have produced a motor of 0.21cu.in. that produced the power of the '25'. A big fear is that by allowing the increase in capacity for 4-strokes it will make other manufacturers see the possibility of producing competitive engines of the larger capacity. Thus force a general turn round in engine useage to 4-strokes with the need for all drivers to purchase these motors to remain competitive. They are not as powerful at the moment simply because the main development area over the past years has been in 2-stroke technology.



Above: the HP-25 four-stroke buggy motor which was unveiled at the Nuremberg Toy Fair. Note the small exhaust pipe, a tribute to the HP's quiet running.

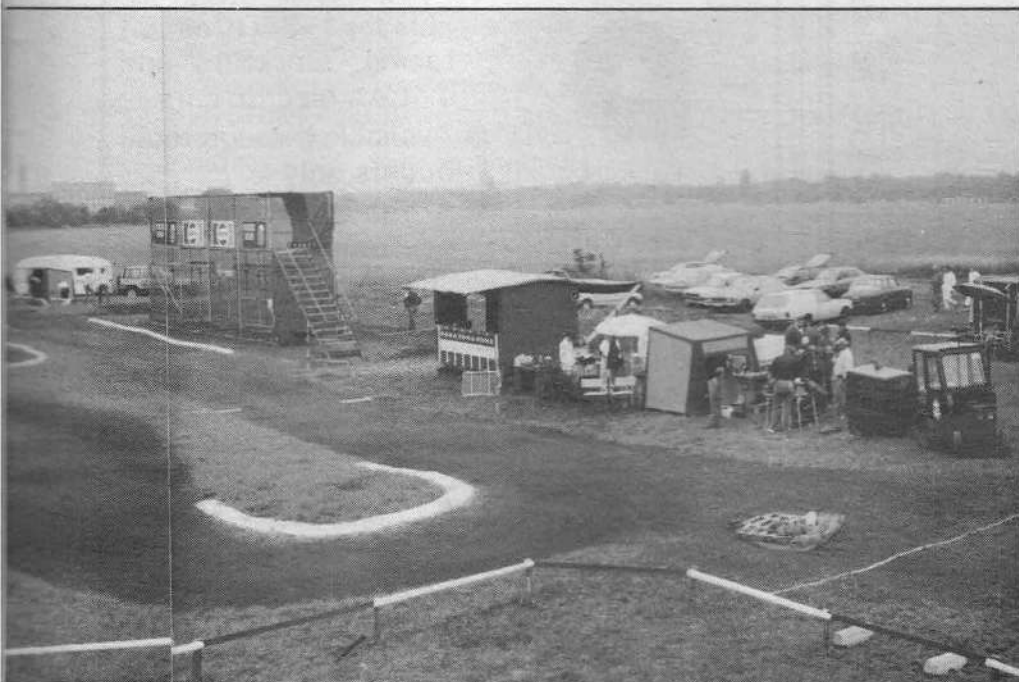
All that may ultimately happen is that we end up with a new generation of 'Super Power,' high revving, noisy 4-stroke motors.

Double trouble?

Several Buggies currently available including the new PB 'Mustang Xi2'

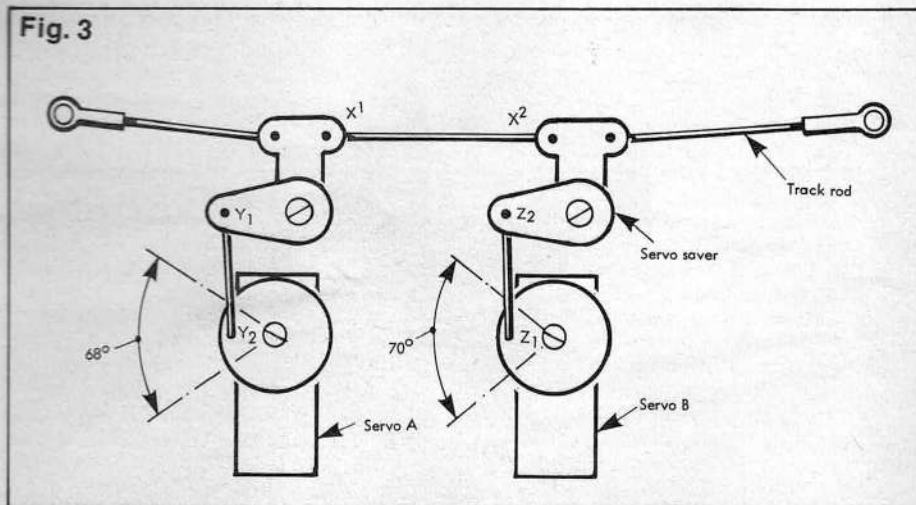
are designed with the possibility of fitting 2 servos to the steering. There is no doubt at all that with the high weight of the latest 4-wheel drive Buggies and even on the very best designed steering set-up there is a lot of load on the servo. The twin servo answer works well providing that certain factors are taken into account. With any servo installation it is essential to ensure that the servo is not stalled at either end of its travel. With a twin servo set-up this problem is aggravated because it is very unlikely that even with the best of servos, actual travel of the servo will be the same from one servo to another. It is obviously impossible without resorting to complex linkages to use two servos of different types.

The reason for caution is quite simple, modern high power servos in particular have very good resolution and very high power with virtually zero free play in the gearboxes. This means that even with minute differences in travel between servo's, if they are linked together and one servo gets to its commanded position before the other there is no free movement in its gearbox. Then the second servo will try its best to get it to go to the position



Left: the Amager RCC club in Copenhagen, Denmark, have produced this very neat 1/8th Scale Off Road Circuit in time for the international season. The Amager club hopes to hold an EFRA Grand Prix in June - see you there!

Fig. 3



it wants! Now that second servo is pretty powerful (so is the first) so they will sit there 'arguing' with one another as to who is right about the correct position to be in; meanwhile drawing very high current and getting very hot under the collar in the process. Sounds familiar!

The upshot is batteries that are

flattened very quickly and servos that are not likely to last very long. You must be meticulous in drilling holes in both servo saver and servo output arms so that there is no built in error in the linkage and I would go so far as to say that ideally I would make the holes a sloppy fit to allow for differences in servo travel. (See Fig. 3)

Talking of batteries

Or perhaps, talking of double and big servos, if you are thinking of using larger servos or double servos, then there is a good case for fitting a larger battery pack. You cannot get anything for nothing in this world and although the better designed servo amplifiers and motors are undoubtedly more efficient, we are probably talking in terms of only 1 or 2 per cent better. To get high power from a servo a lot of current is needed, the more current you draw from the battery the faster it goes flat. There are many suppliers of bigger batteries, try *Phil Greeno Models* or *Weston UK* for a suitable pack. Either a 600mA or 700mA pack should give a worthwhile boost to the running time of your Buggy.

Plastic gears?

The first question I am usually asked about any new Buggy is 'Has it got plastic gears?' A 'Yes' answer seems to bring about dreadful despondency in some quarters, quite why, *Serpent* drivers, to mention but 'Cobra', cannot understand. There is NO REASON AT ALL TO DISMISS PLASTIC GEARS.



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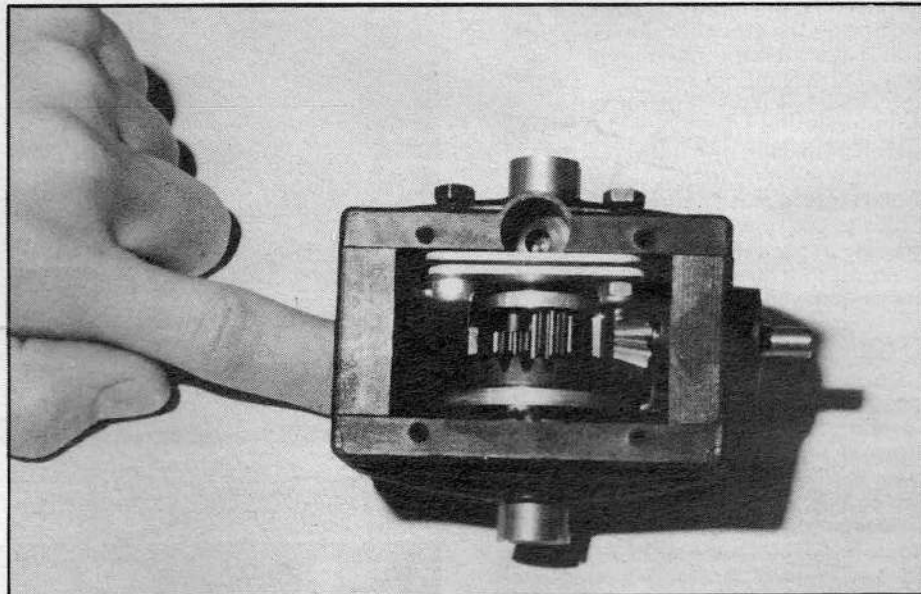
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Any gear, be it metal or plastic has to be suited to its purpose and it is true to say that there are some pretty appalling metal gears made from wholly inappropriate materials fitted to some Buggies.

Ask any *Serpent* 'Cobra' driver how many plastic bevel gears he has broken, I have yet to hear of a single one. So, don't dismiss plastic gears out of hand, ask one of the drivers that gets the particular Buggy to perform really well what its findings are.

International news

Applications for the privilege of hosting the first ever 1/8th Buggy World Championships were discussed at the recent World R/C car federation meeting in Paris and it was decided that EFRA should be offered the opportunity. As EFRA (European Federation Radio Autos) Buggy Chairman I have already put the



Above: the right sort of plastic can be used with total confidence in every high stress geared situation throughout as in the new 'Mustang Xi2' racing buggy from P.B.

wheels into motion by asking the French federation if they are prepared to act as hosts on behalf of EFRA. Things look promising for a Championship in late summer of 1986.

The venue for the Grand Prix D'Europe for 2-Wheel Drive 1/8th Buggies is to take place at St. Saturnin les Avignon in the South East of France on 26/7 October this year. ☐

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Taking Stock

by Mike Chilvers

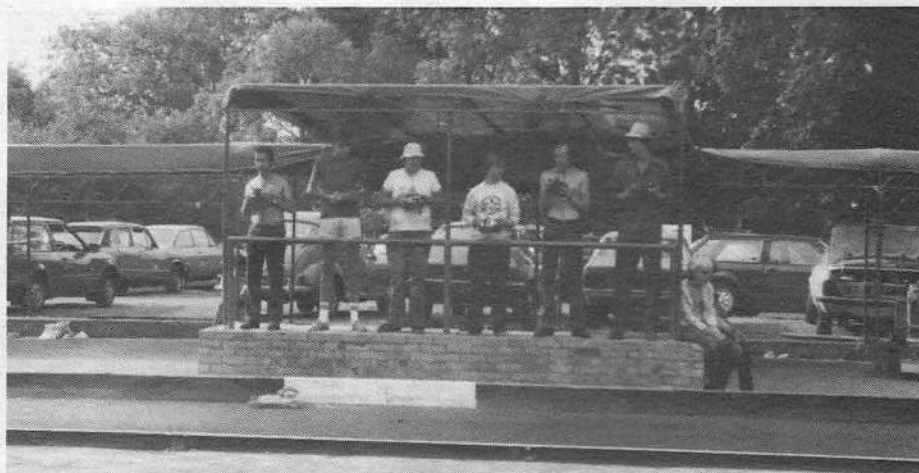
AS I WRITE the month of March is with us, and so the stockcar season is just about to start once again. In fact the first 1/12th National Just misses my copy by a few days, and the Series Rounds for the 1/8th brigade starts on March 24th, with one or two Clubs getting a meeting in before that. With those facts in mind I phoned up a few Clubs to see how things were going in the way of preparation and am pleased to report that all seems to be promising well for the '85 season.

1/12th Scene

Chris Loughran was wondering if he would be ready for the start of the season when he last wrote to me, and thought he might still be siliconing the tyres in a last minute panic. This year's National Championship promises to be more interesting in a number of ways, and Chris hopes that those who have so far only 'thought' about going to a National will actually go the whole hog and take part. This year there is a new venue to race at, and there are several new car designs, all scratch built, to watch out for. We hope to be able to give you more details as they appear on the race track. Also I hear that there is a strong possibility of a new stockcar kit arriving on the market during the season from a concern that have not produced a stockcar previously though they have been very well represented in other branches of car racing.

Chris is also hoping that he can persuade some of the top drivers to pass on some of their hints and technical tips, so keep an eye on future issues.

Finally Chris is attempting to compile a COMPLETE register of ALL 1/12th Stockcar Clubs in the country. The reason for this is two fold, firstly it will enable us to give essential details to prospective members regarding the whereabouts of their nearest Clubs, when they meet and who to contact for further information. (Could have done with such a list at Wembley!) Secondly it will give your Club the extra publicity by being published in interested magazines such as Model Cars. There are many drivers that I know of who would welcome such information. So all Clubs please get in touch with Chris Loughran, 36 Glenhills Boulevard, Eyres Monsell, Leicester. Letting him know who you are, where you meet, at what time and which day, plus any other information such as directions.



Above, below and right: photo's of racing at the Coventry Club circuit from last year. The club facilities are excellent with covered pits/drivers' rostrum and purpose built lap timing hut.

Racing Stockers

Mike Chilvers looks at the Stockcar Racing scene

Around the 1/8th Clubs

One of the Clubs that had a spot of bother last season was the Pendle Club who lost their race venue and had to abandon the last few meetings of the season. I'm pleased to report that '85 sees them alive and kicking at a new location, the Nelson and Colne College, Barrowford Road, Colne. The man to contact is Alan Griffin, 36 Calliards Road, Wardle, Rochdale, Lancs.

Another Club who had a bit of a scare was the Nottingham Club whose venue was up for sale and they feared their hard work of a purpose built oval had all been in vain, but again I'm pleased to report that they are still safe for a couple of years and can still be found at Basford Hall, Nottingham, just off the A611. If interested contact Norman Wheeler, 15 Devonshire Drive, Eastwood, Nottingham.

One group that will have moved by the time you read this is the Sussex Club who have moved to new permanent surroundings at the Adur Rec. which is by the side of the River Adur on the Brighton to Shoreham Road. I know that a lot of work has been done by some of the members to get this new facility which I hope to be able to report on in a future issue. As a reward for their efforts the first major meeting on the oval will be the European Championships on May 26th.

A frequent comment that I get when I phone up Club officials and start asking questions about the preparations for the new season, or indeed general organisation during the season, is that much of the work seems to be done by the same people, and the complaining done by the others. When starting up a Club all members should be made aware of the work that running a Club involves.

Having just returned from a Club 'Work day' I was most pleasantly surprised to find that over twenty people had turned up on a day that was not really one anyone would say had ideal weather — it was raining quite hard. Despite that, members travelled fair distances, 12 miles for

MODEL CARS



the nearest, about 35 for the furthest (that's 70 miles return trip!) for a 10a.m. start.

The plan had been to do some concreting, put up a central barrier, do some general cleaning up, smarten up the 'Ladies' etc. Despite the weather most of the work was done, and some members agreed to return at a future date to complete aspects that they had been unable to finish, before the first meeting at the end of the month. An extension to the drivers' rostrum was made by another member who sent it with a friend, and the timer was taken away for a check.



All that now remains is to check over the mowers. I mention all this because these are the sort of tasks that have to be completed by all Clubs in order to stage the racing that will take place later in the year. Then comes race day. Someone has got to make sure the PA system works, organise the race programme, get in the money, do the briefing, man race control and be the one to whom all the problems can be directed. It is most unfair if this gets landed all on the shoulders of one or two people for the entire season.

Some Clubs get round this problem by having drivers who work in pairs to do the organising, being credited with their highest points score of the grading period for the meeting they have missed due to full time organising. Other Clubs manage by having sufficient people prepared to take an active hand in helping, so that all can enjoy the racing on race day, and do what we all became involved to do in the first place, race. Some however still expect the load to be taken on one or two shoulders, and then express surprise when those shoulders give out. I'm pleased to say I belong to a club which has learnt to

share the load quite well, with the result that any successes we have are Club efforts.

Club in Focus (2) Buntingford and District Stock Car Club

The Buntingford Club was started in 1981 by the family Pettitt and friends for 1/12th scale cars, and it is this scale that the Club still operates today. The first venue was a grain storage building with a concrete floor, but in January 1982 they moved to their present location in Great Horstead Village Hall, where it was both warmer, and I would imagine less dusty though there may have been more difficulty in finding traction.

Since the move the Club has grown steadily, and there are now about 25 members, 18 to 20 of whom turn up on a regular basis from mid October to about the middle of June.

For Club meetings they have strict rules with all members having to use standard *Mardave* cars with only minor modifications allowed, using only 4-cell power packs, and no silicone or tyre additives. This is done to keep the cost of racing very cheap, and enable anyone to come with a new car straight out of the box and be competitive. The reason for the *Mardave* only rule, is that no model shop within the area stocks the *Lectricar* or its spares. The emphasis of the Club's racing is on driver skill, rather than the expertise of scratch building.

The Buntingford track has a six inch high outer fencing made of tough nylon webbing, and the infield is of plastic piping filled with pea shingle, all of which encourages drivers to keep well away from it.

The current Club Champion is Roy Jones, and he also finished 6th in the meeting held at Wembley during the Model Engineer Exhibition, his was the car with the most expensive aerofoil, a £5 note! Danny and Jonathan Smith are two ex Club Champions, and Paul Adams, who won the Hemsby Holiday Championship, was the first Buntingford driver to make the top 15 at a National, though the Club are still waiting for their first winner.

Several Club members race at other Clubs such as Cambridge and Newham where the racing is to full RSCA regulations, as well as competing in the RSCA Nationals.

By the time you read this the Club will have staged its first major event, as it is hosting the first round of the '85 Nationals, sponsored by Red Baron Models Ltd.

If you are in the area and fancy a run out at Buntingford then contact Roy Jones, 13 Silverfield, Broxbourne, Herts (0992-445186) and make your way to the Village Hall, Great Horstead which is just past the Barn on the B1038.

Bits and Pieces

Mardave have just sent me their new 40 tooth rear drive pulley which they will be using on their 'MkIII' kits once they have used up their old stock. The new pulley is much thicker and wider to accept the new generation of wider belts and looks to be a great improvement on the older type. Price will be £1.60. This should now complete the new *Mardave* package.

Racing Round and About

The big question when you read this will be who will win the European Championship at the Sussex Club's new venue at the Adur Rec. on May 26th. Will one of the foreign drivers come and take the title that has been in British hands for the past four years to my knowledge? Or will one of the British lads hang onto it again? Can Roy Crowson retain it? Will Paul Dudley win it back? Will Cliff Emms win it as he did in '81? Will Steve Talbot — who to my knowledge has never won it, start the '85 season with a win in the same way as he finished the '84 season? Can one of the southern drivers take it? Graham Lawrence for one ought to be in there, though he might get caught up in the organisation of the meeting. All will be revealed on May 26th though you will have to wait till the September issue to find out!

Other major meetings in June include the third round of the Series Championship at Keighley on June 9th when the major contenders will travel up the motorways to do battle with the northern drivers. June 30th sees the attention turn to Coventry for the British Championship, when Cliff Emms will be defending his title on his home track, with all the usual opposition trying to stop him.

The 1/12th National moves to the Wirral Club, on their rearranged date of June 9th, for the fourth round of this six round series, the third round having been at Pendle with that famous hill in May. All reports will come in due course, plus Chris' comments on the new cars.

Whilst on the subject of racing I went to Peterborough on February 23rd to have a look at the Slotstox Nationals, and though I never had the chance to let Trev Tennant (our Slotstox expert) get his own back on the track it was an interesting afternoon, and I may do a limited season next winter. It was nice to see some of the 1/12th drivers racing and doing the commentary.

Well that is all for this month. Next month will see the return of some meeting reports, plus a few early season observations on what's about in the pits. Please keep the letters coming to me at 85 Elliot Road, March, Cambs PE15 8BP.

See you ovalling around.

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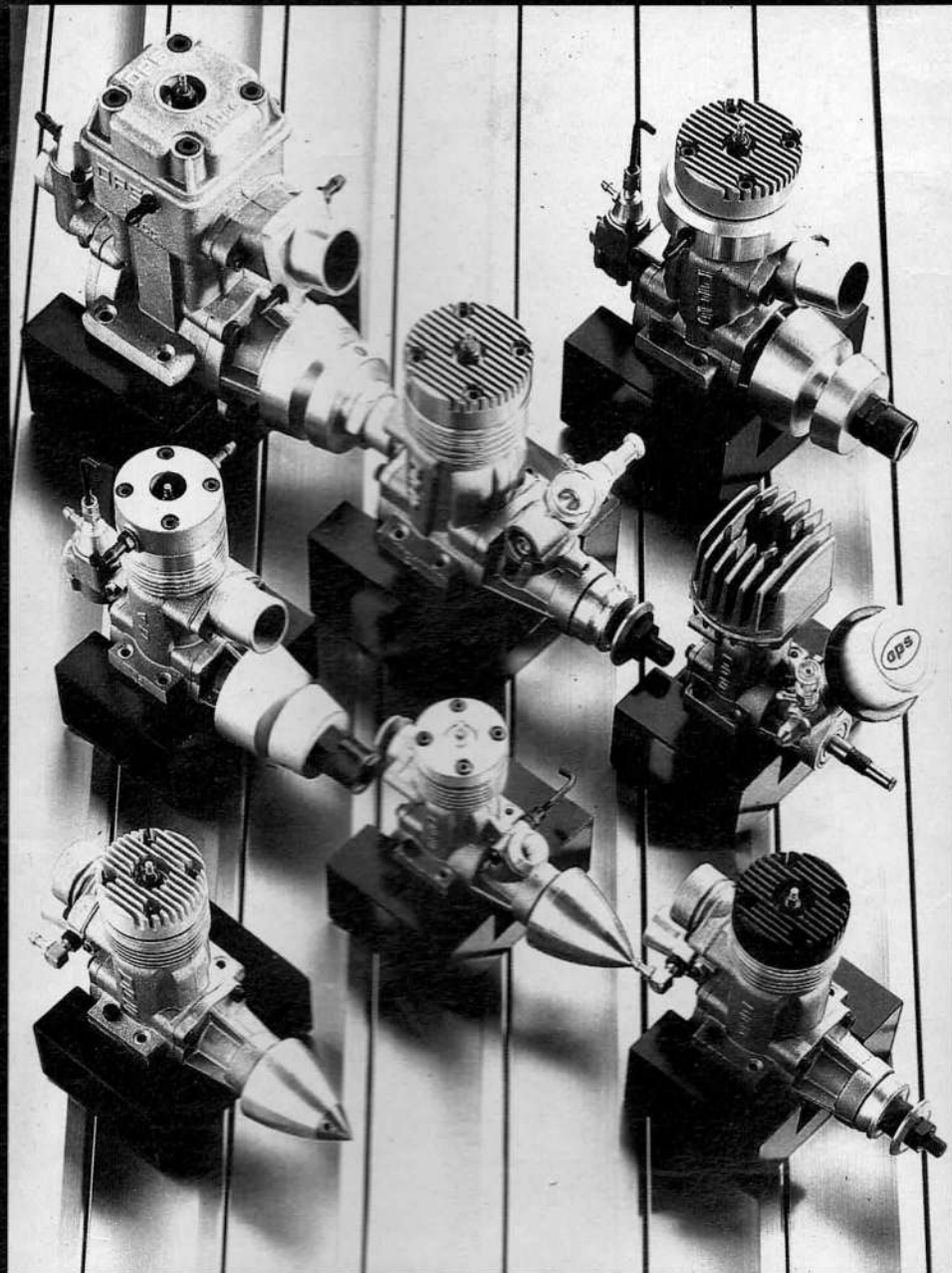
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