

The Monthly Magazine
for All Model
Radio Control
Car Enthusiasts

Radio Race Car *International*

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1/10 Circuit Racing

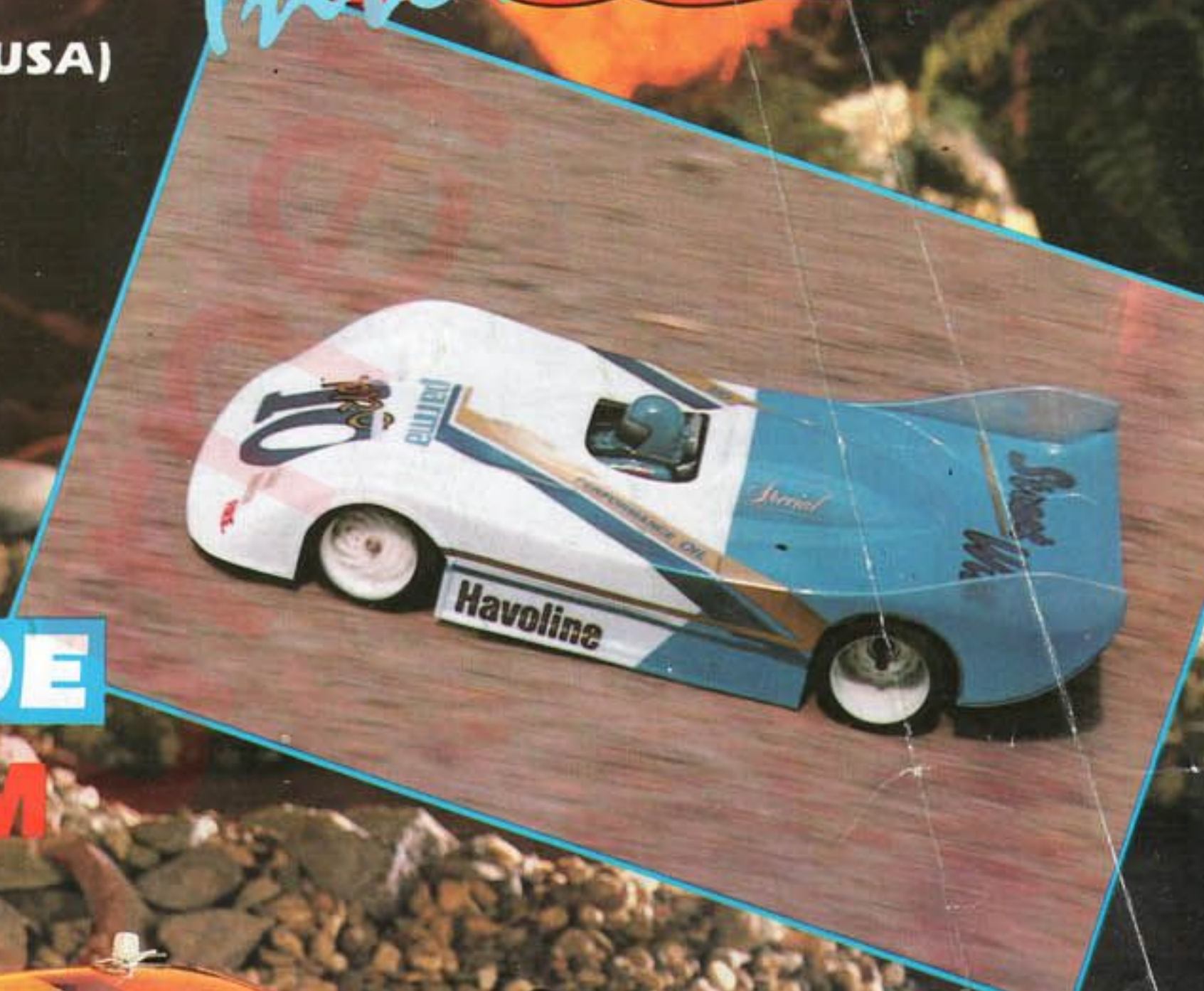
WHAT IS IT?

1/10 Eurochamps

FULL REPORT INSIDE

**RACE REPORT FROM
LILFORD PARK**

**PARMA'S PANTHER AND
SCHUMACHER'S T.R.C.
1/10 CIRCUIT RACERS
BOTH REVIEWED**



**TAMIYA'S
MIDNIGHT
PUMPKIN**

Win Yokomo's living legend

THE 4WD SUPER DOG

FIGHTER see how inside

Reviewed

Radio Race Car International

C O N T E N T S

September 1988 • Issue 58 • ISSN 0268-3334

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EDITORIAL

Again we find ourselves half way through the year, a year in which yet again much has changed. Who would have thought at the beginning of the year that standard class motors could be as quick as some modifieds. A few times this year drivers at particular events from the standard class have qualified with times that would put them into the modified A final. What then are the motors that these drivers are using, surely everyone should be able to achieve the same results? After all we are talking about standard motors — you know, the type that we can all buy off the shelf! Sadly this is not the case. Unfortunately this cheating — we might as well be frank because that is what it is — may well lead to the downfall of the standard class motor. The opponents of standard class racing have tried to unify standard and modified classes for years now and run one, anything goes, class. The next B.R.C.A. conference could see public opinion swing their way and a whole class of racing become extinct because of a few people who must win at all cost and the fuel that they add to this unification argument. To those few, please don't think that the rest of us admire your driving skill because we don't, if your 'standard' class motors doesn't get you off the line ahead of everyone else for whatever reason, maybe a lesser mortal gets in your way, then we have all witnessed the mess that you make of the rest of the race, hitting corners, rolling your car, generally getting nowhere fast. Maybe that's why you cheat because you really can't drive at all, so to stand any chance you have to be quicker, be warned we know who you are and as soon as we find out how to prove you're cheating, we will.

Front Cover

This month's front cover features Schumacher's TRC Circuit Car and Parma's Pro-10 Circuit Car.

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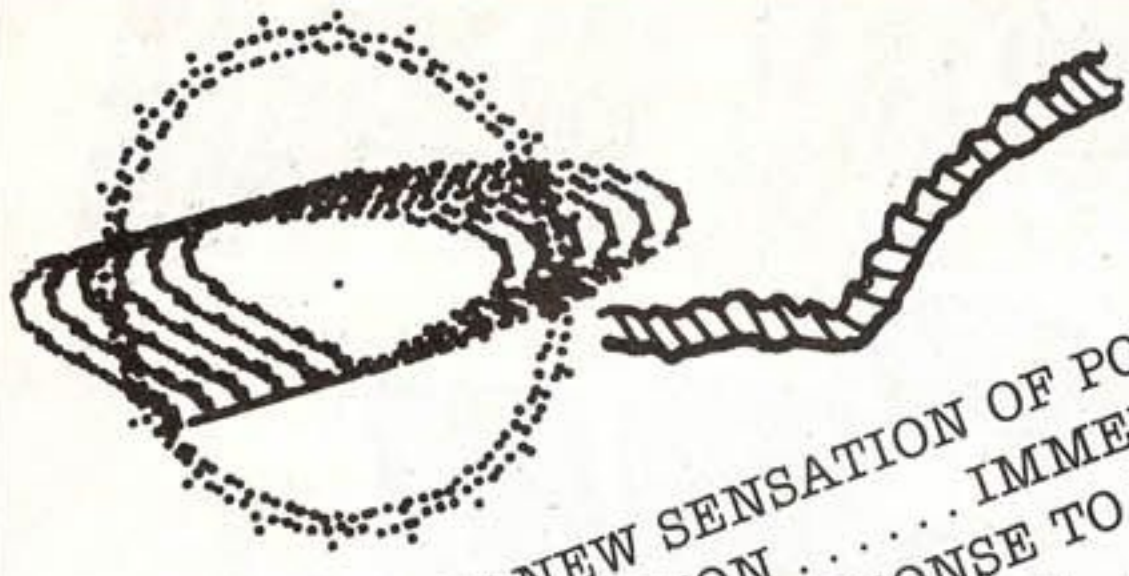
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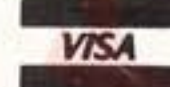
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10 YEARS



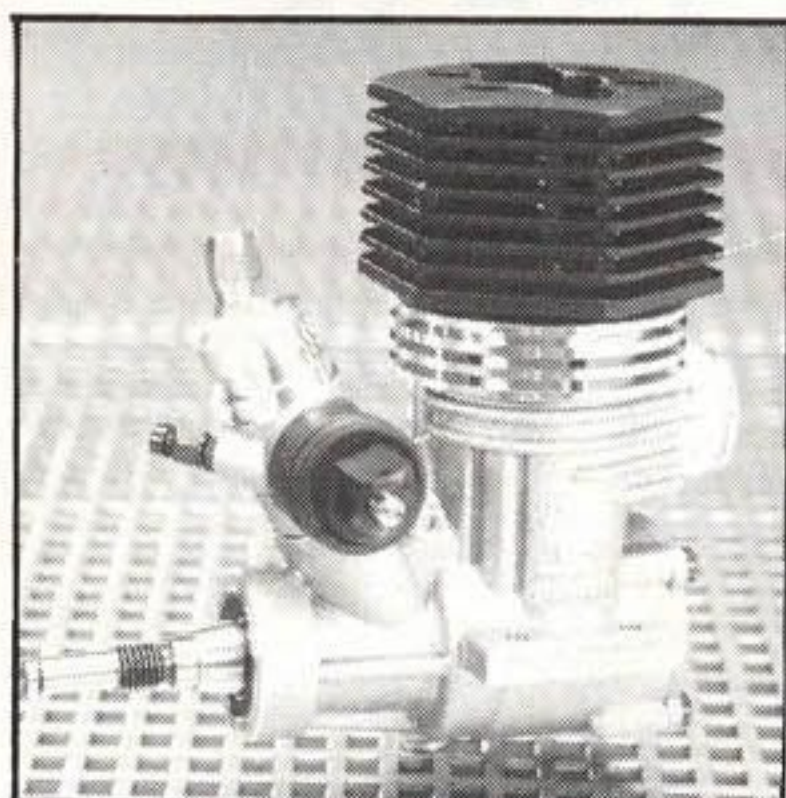
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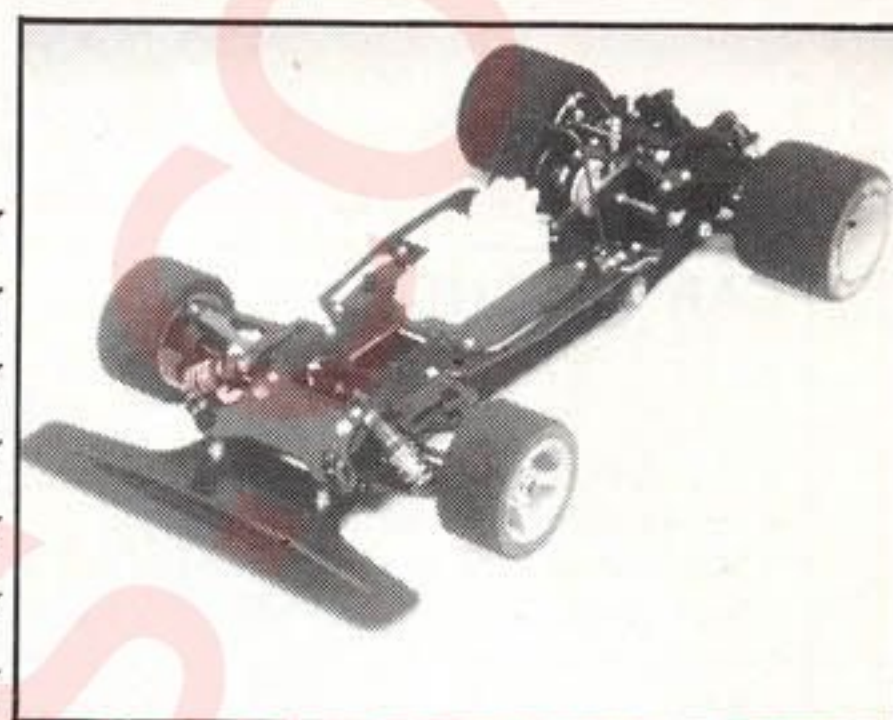
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TRACK TALK

It must have been at least twelve months ago now since I received the Ashura, courtesy of Tony Stephenson after a visit to the Toledo Model Fair. Most of you will remember the same kit no doubt being reviewed some three years ago in Model Cars by Pete Winton, however many things have changed in three years, ie. the cars are getting faster via better selection of nicads and now the new wet magnet type 'ultra' motors and not forgetting the SCE cell which is still being worked on.

For the three major chassis makes on the market at present, the Schumacher, Associated and Corally, all of which are rear wheel driven, we are getting to the point where more power is going to be harder to utilise efficiently, maybe not at National level where grip levels are high but at club level where the first couple of runs are always a bit poor since the carpet is dry. I'm sure most of you have experienced what I mean when you've turned up at the local club with your National spec gear and modifieds and have found your car more than a handful, especially on a small twisty track, not forgetting any bumps.

Factors like the extra power available led to the 1/8 scale circuit cars to move to four wheel drive, followed by the 1/10 scale buggies. With all this in mind I was determined

Hirobo Ashura Review. The completed kit, finished and ready to go.

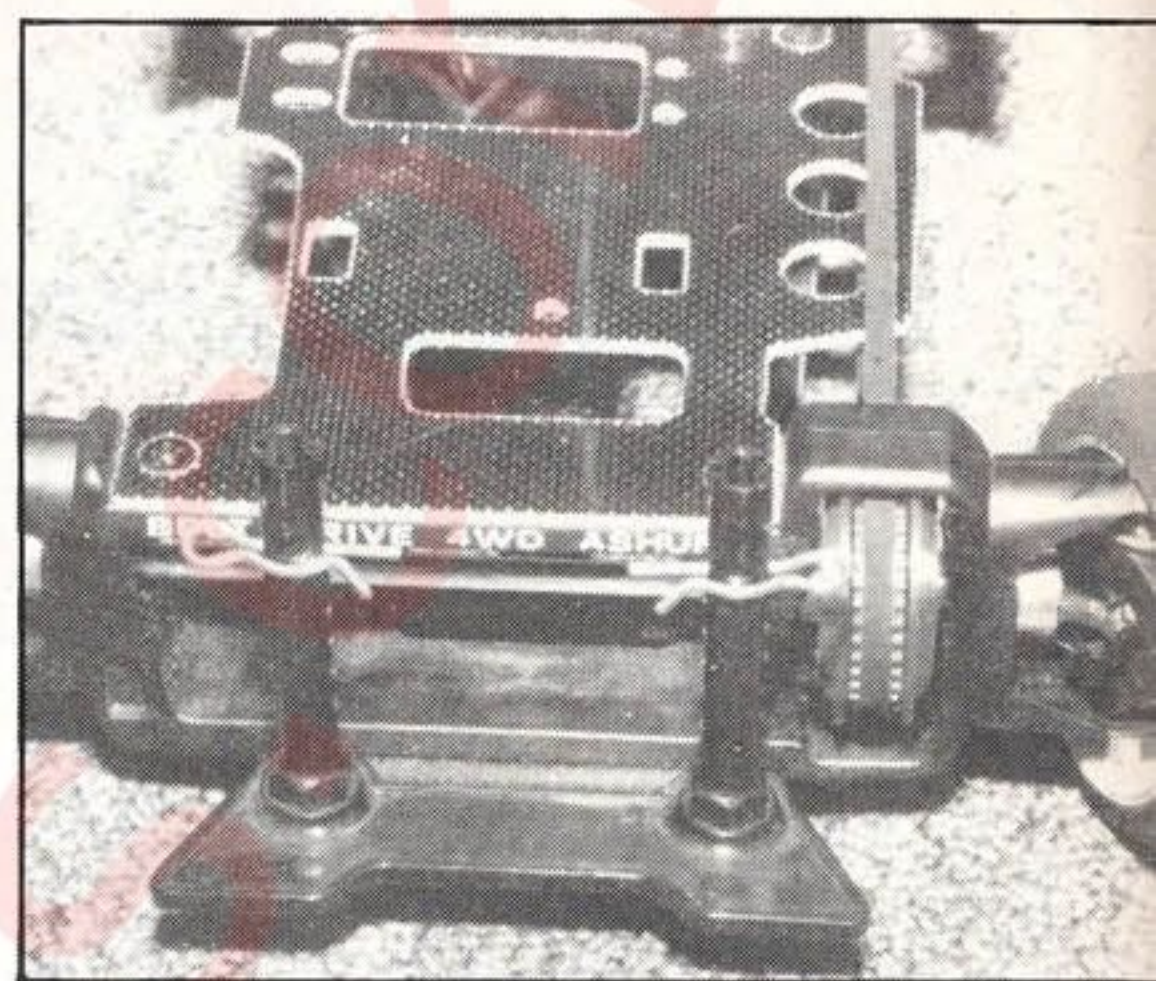
to review the kit with a totally open mind.

The kit was received in just a normal cardboard box, so I can't make any judgement on the presentation and packaging. Digging away at a pile of shredded paper I came across a virtually completely built rolling chassis, clear body shell and a few extra bags containing body posts, nicad straps and speed control. I don't know why but the first thing I always do with a new kit is compare the wheelbase to another kit.

The wheelbase is 198 mm which is the same as the RC12L. The rear tracking is also identical but the front is a couple of millimetres narrower.

Basically the car utilises a one piece chassis on to which are mounted a single beam type front suspension block and a pivoting rear end. A shaker plate or mechanical deck is then attached which runs from the top of the front suspension beam to a support at the rear of the chassis where a twin ball link arrangement attaches it to the motor pod.

Unlike our normal cars, the motor drives to the left hand side of the car and not the right, no doubt designed for the old Mabuchi motor. Drive is transferred to the rear of the car by a toothed belt, extremely similar to those used on the Schumacher CAT, so instead of pinions we have motor pulley's, four being supplied with the kit 13, 14, 15 and 16 tooth. This belt links to a 54 tooth pulley on the rear axle.



Hirobo Ashura Review. Front end, the 42T pulley which houses the geared differential sits inside the front suspension beam.

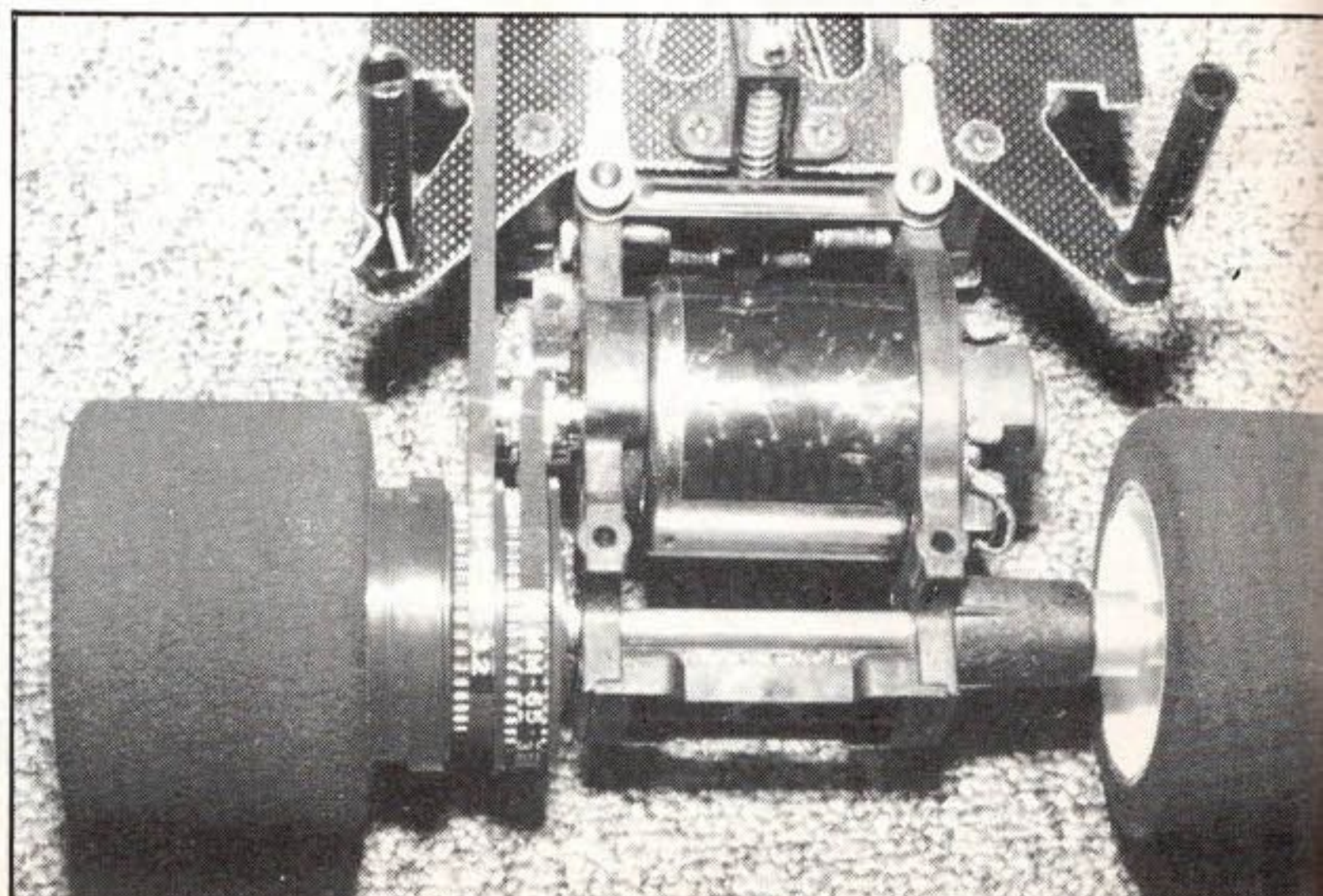
The rear axle and drive uses a geared type differential with a one way roller clutch so that on heavy cornering any braking effect will be done by the front wheels.

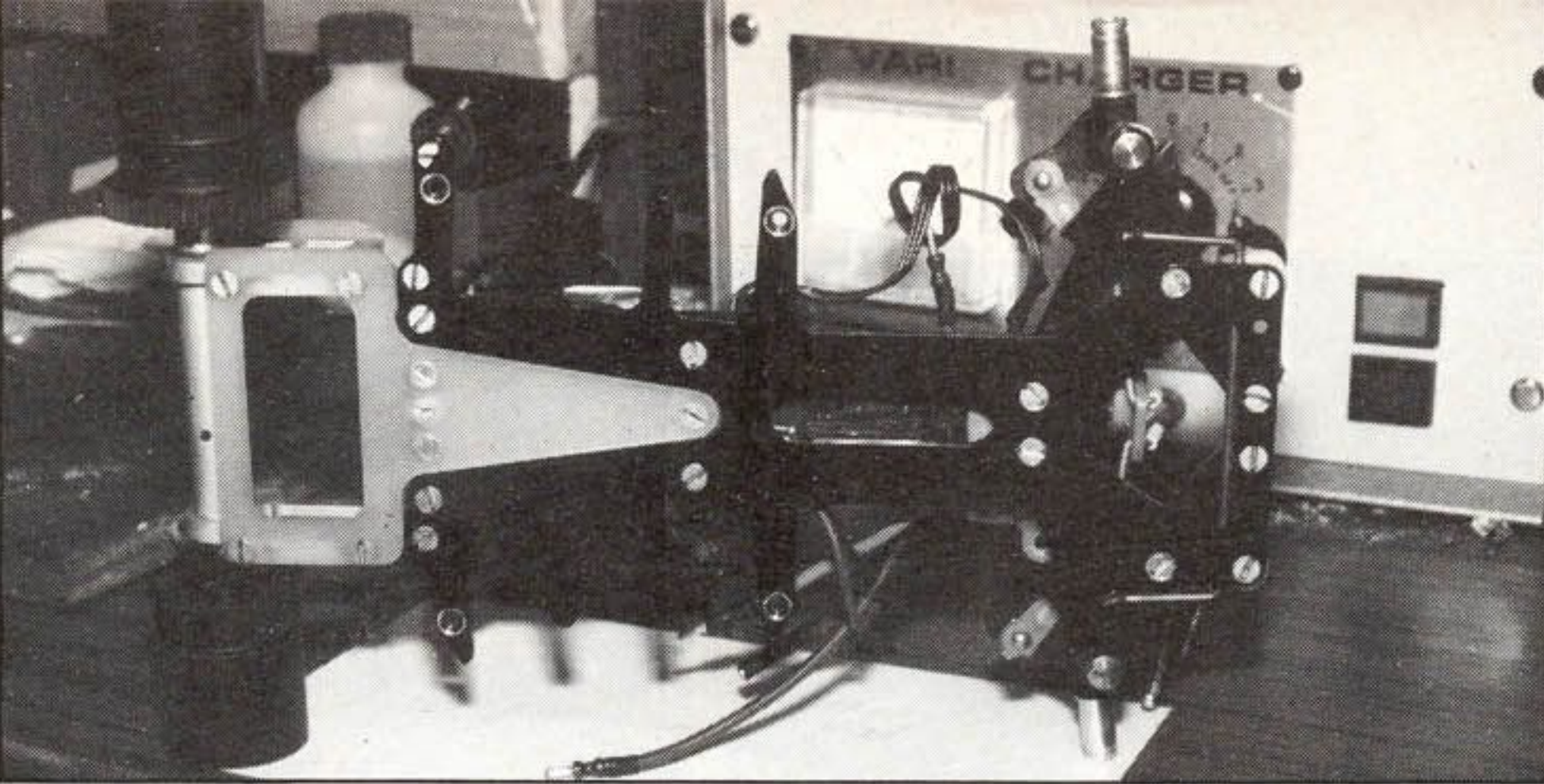
Next to the 54 tooth pulley there is a 48 tooth pulley which is linked by another belt to, you've guessed it, another toothed pulley, this one having 42 teeth and enclosing another geared differential at the front of the car. Drive to the front wheels which don't forget are for steering also is via two small 'ball pin' drive shafts, again similar to drive shafts on the RC10. The front suspension is of the sliding pillar type and 4 mm of travel is available.

Battery arrangement is for stick type cells which are slung beneath the mechanical deck and held in place by cable ties. Although a wiper type speed controller is supplied with the kit, this was discarded in preference to an electronic unit which was servo taped to the mechanical deck. The steering servo is again servo taped underneath the mechanical deck leaving just enough room behind it for the receiver, the aerial of which is soldered to a metal 'roll over' mast which is bolted to the mechanical deck.

The servo saver provided was of the same design type as the popular Kimbro **Hirobo Ashura Review. Rear of the car; the drive from the motor pulley is transferred to the 54T pulley while the 48T pulley transfers the drive forward.**

The double ball link arrangement linking the motor pad to the mechanical deck can be used as a crude tweak adjuster.





would have been pulling 37.85 mm per rev at the rear and 29.10 mm per rev at the front. With the new figures for the front the figure is 38.08 mm per rev and keeping this difference of about 6 mm between front and rear tyre diameter keeps the mm per rev figures front and rear, virtually the same, ie. full 4 wheel drive.

The corally conversion kit for the Schumacher C-car range. A chassis for the CV and SPC car are available. Both come with new wishbones or rear T piece strap.

type but came with different centres for different servos like the Schumacher unit and therefore required assembly. I found the assembly an extremely arduous job which took many attempts over a 15 minute period, but the end result was a servo saver with no 'slop' in it. The steering linkages are of the ball type on one end with an 'S' bend on the other and the wheels were set parallel with no toe-in or toe-out.

The motor mesh was set so that both pulley's were in line with about 1.5 mm of movement in the belt. The tyres supplied were extremely small and had an uncomfortably plastic feel to them so these were replaced by some Grand Prix 'C' tyres. The rear damper adjuster was then tightened to such a degree so that the chassis and motor mount can be positioned on the same horizontal line when the suspension is restored after pressing the rear part of the body with the car set to the running condition. Figure 3.

All that remained to do was to paint the body shell and cut it out, the body post holes and wheel arches had already been. Finish using the self adhesive decals. The final adjustment was a slight change in the chassis tweak, effected by altering the length of the ball links which attach the motor pod to the mechanical deck.

It was only now that after the kit was ready to run came the problem of gear ratio's. This time the gear ratio is plural, ie. front and rear. The instructions recommend a 44 mm diameter front tyre and a 50 mm diameter rear, to fully exhibit the features inherent to my Ashura, 'but what about the mm per rev and all that jazz'.

Moving to the table on Page 7 of the manual we have a list of gear ratio's.

Front:Rear = 1.142:1

Number of teeth of motor pulley	Reduction ratio of rear section	Reduction ratio of front section
13T	4.15:1	4.75:1
14T	3.86:1	4.41:1
15T	3.60:1	4.11:1
16T	3.38:1	3.86:1

The second column refers to the reduction of the rear section, ie. the drive from the motor pulley to the 54T pulley. The third column is the reduction ratio to the front section but I cannot see how they get these ratio's (see figure 1). Remember the 48T drive pulley next to the 54T pulley transfers the drive to a 42T pulley at the front end, ie. a Front:Rear ratio of 1.142:1, ie. for every one revolution of the rear wheel, the front wheel will revolve 1.142 times to make up for its smaller diameter tyres, yet according to column 3, compared to its corresponding rear ratio for any given motor pulley the front wheels will be travelling slower. Figure 2 is a corrected table.

Using Hirobo's figures, to work out your mm per rev figures, on 44 mm fronts and 50 mm rears with the 13T pulley, you

According to the table, reduction ratio is 1:3.38 to the rear and 1:3.86 at the front but this second figure is incorrect. The actual ratio at the front is 1:2.96.

FIG. 1

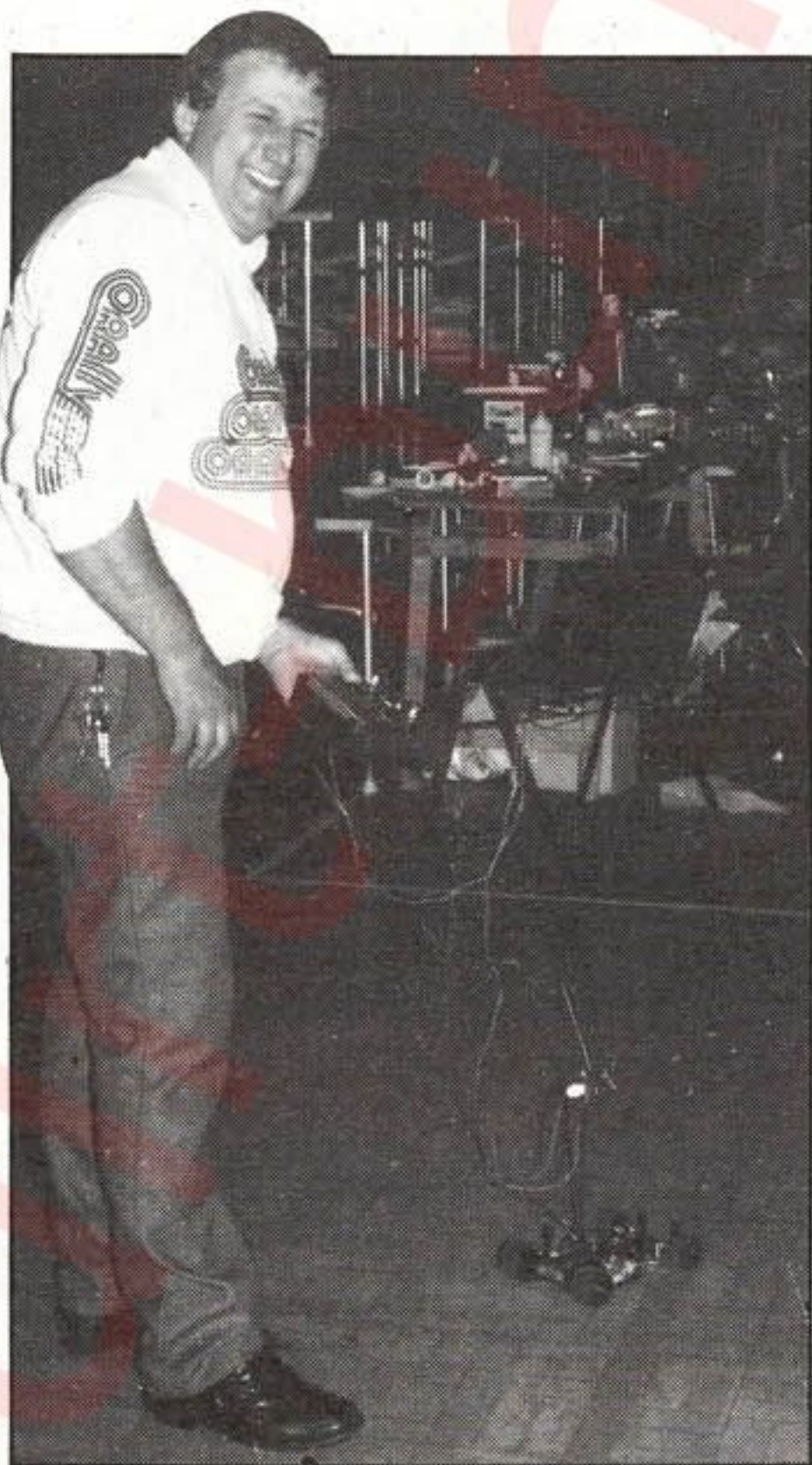
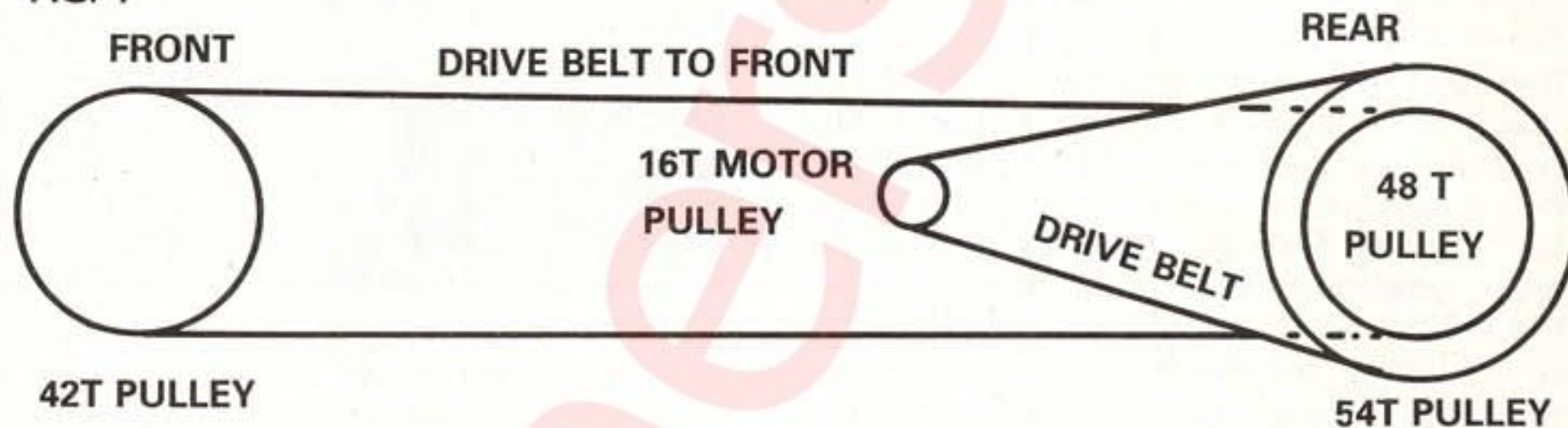


FIG. 2

Motor pulley	Reduction of rear	Reduction of front (incorrect)	Reduction of front (correct)
13T	4.15:1	4.75:1	3.63:1
14T	3.86:1	4.41:1	3.38:1
15T	3.60:1	4.11:1	3.15:1
16T	3.38:1	3.86:1	2.96:1

Running The Car

To start with, the car was set up with plenty of steering lock with the inner 1/2 of the front tyres treated with additive. Although this set up worked well, under acceleration on heavy cornering, the front drive shafts had the occasional tendency to jump out. The problem was easily rectified by reducing the lock but increasing the treatment of the front tyres to 3/4 of their width.

Considering its lack of adjustment of the rear, ie. roll stiffness and damping, the performance was surprisingly crisp. The drive system is extremely efficient as no problems were experienced in doing the eight minute runs with my normal 1/12 modifieds.

'Walkies', Ian Spashett takes his car for a walk using the diagnostic cable for his radio.

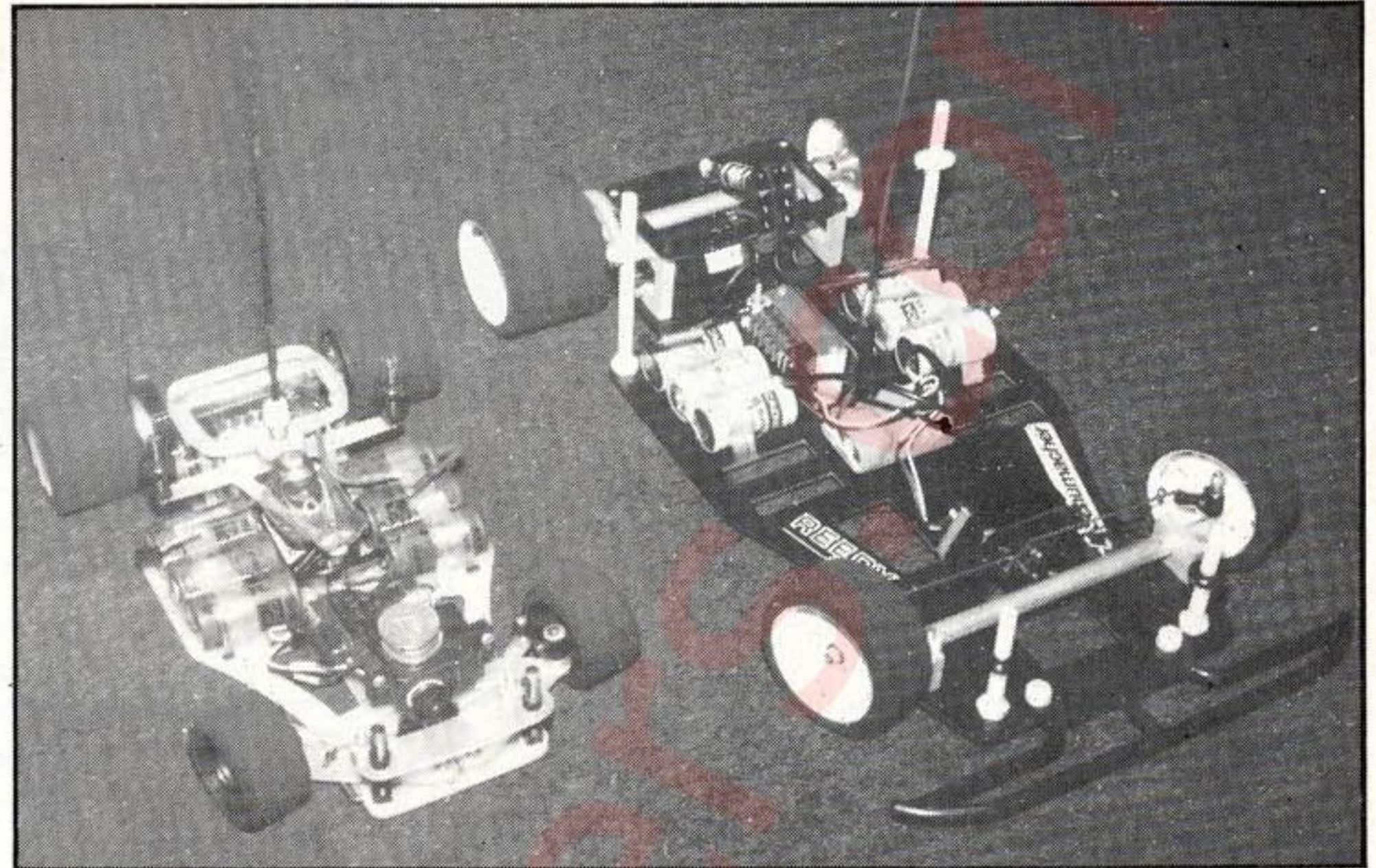
Ready to go, a Team Schumacher SPC and a TRC Pro 10, 1/10 circuit car.



The cars obvious advantage is its stability on acceleration, especially out of corners with very little tendency to understeer under power, especially as I have said before when the grip is low, however when the grip has come up and the normal rear wheel driven cars are set up, then the Hirobo Ashura is going to be just down on performance. However having tried the Ashura back to back on the local car park against my RC12L, the Ashura's capabilities shine through, but again this is due to the grip being low.

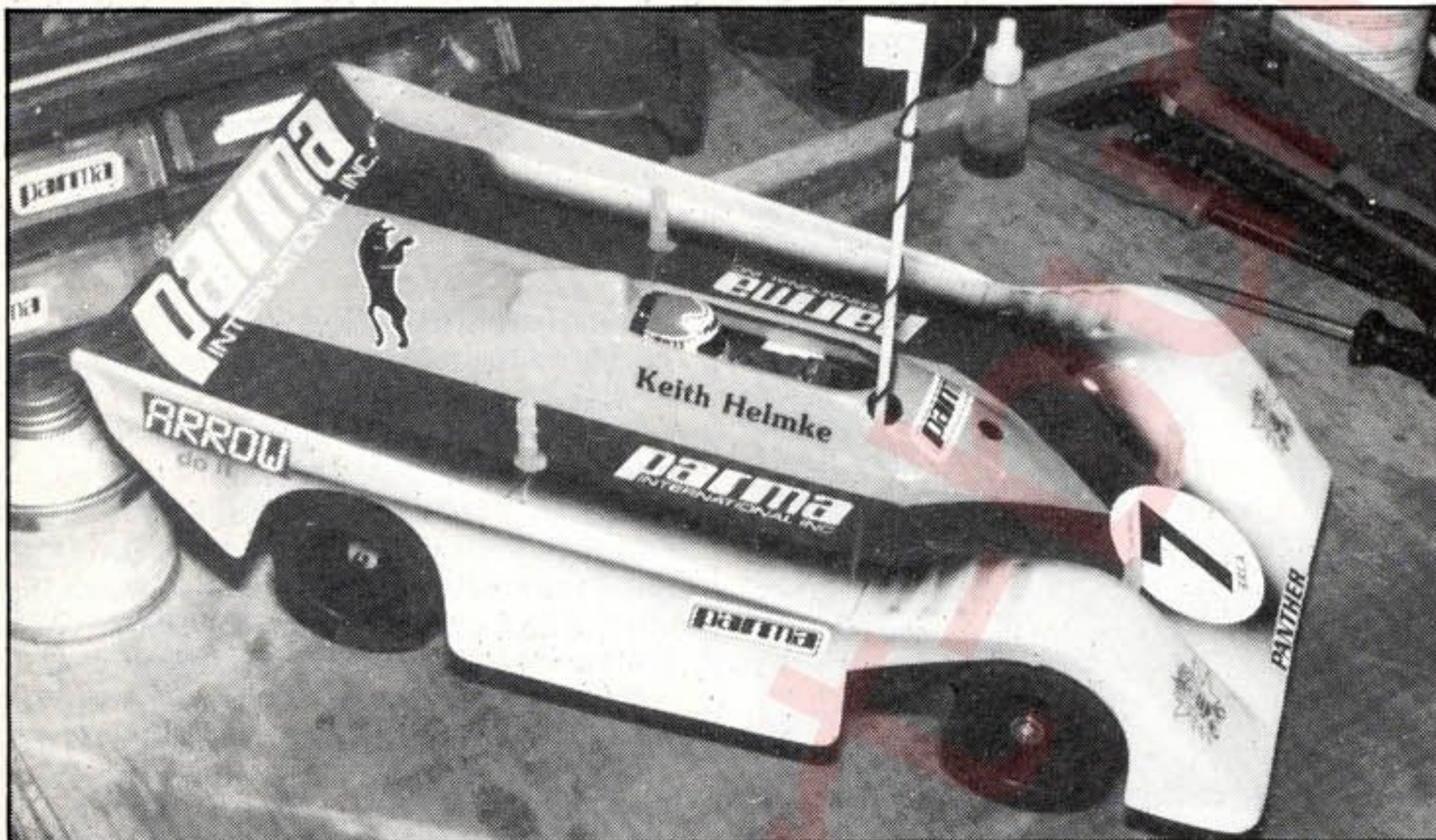
Conclusions

The question I have to ask myself is, "Is there a gap in our 1/12 market for a Four Wheel Drive Car?" and I am going to put my head on the line and say "Yes", but I don't think it will be the Ashura. My reasons are as follows. The art, especially of 1/12 racing is to hit the perfect racing line, lap after lap for eight minutes without an error, nowadays it's the only way to make the A Final. Far too often now I go to clubs where some members and I don't mean the juniors specifically, have cars which for eight minutes resemble uncontrollable missiles, especially when they go to a modified event and think they need to put in a modified to do well. They would be doing

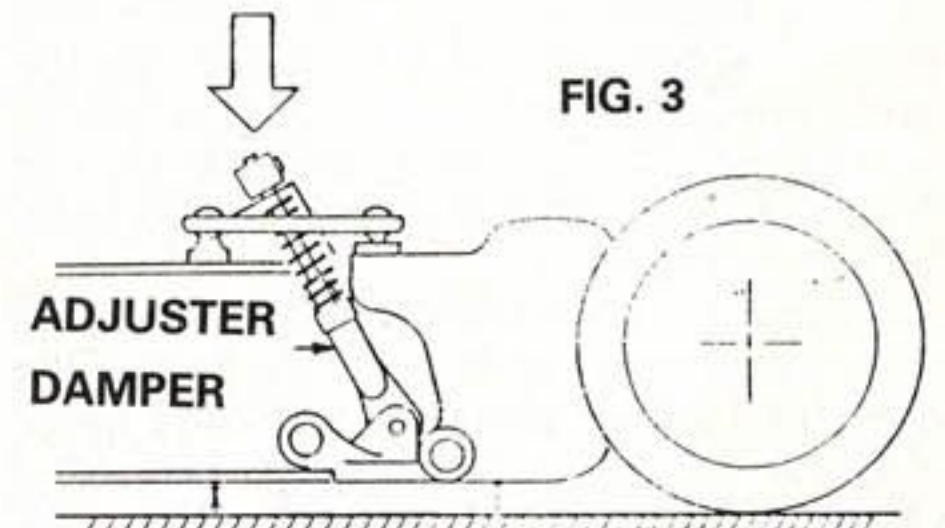
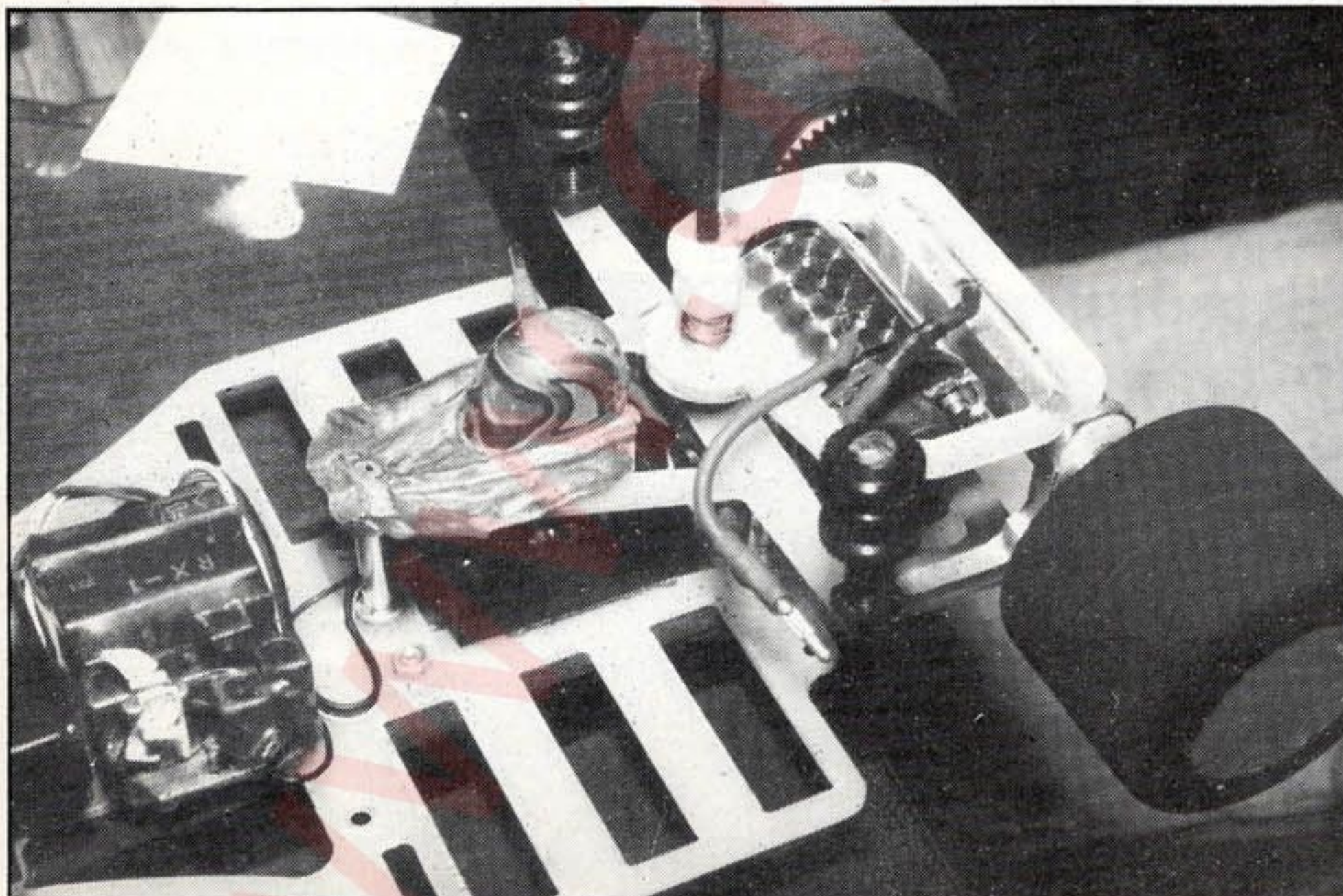


far better to put a standard in and make the car more controllable or maybe move to Four Wheel Drive which from my experiences with the Ashura are far more forgiving. I said only a few lines ago that although there is a space for a Four Wheel Drive car I didn't think it would be the

Inside one of the new 1/10 circuit cars, the TRC Pro 10 next to an SPC 1/12 car.



The latest body from Parma called the 'Tiga'.



Ashura. To me the Ashura is a cross between say a Tamiya Boomerang and an Associated RC12L, ie. the concept is there but the idea needs more development, ie. the difference between a Tamiya Boomerang and a Schumacher CAT, when it comes to the best performance. For example the Ashura has limited gear ratio's, no ride height adjustment, no rear roll stiffness adjustment, as such and a lack of damping. The Ashura would be ideal for a newcomer as it's very simple but the next stage would be to give the car to someone like our own Cecil Schumacher and say improve on that and I'm quite sure you would see one hell of a high performance Four Wheel Drive car but of course, before that happens, a manufacturer has got to be sure that a good market is waiting for him and as 1/12 sales are relatively small in this country, that is the stumbling block.

In all it was nice to try something different which has got potential without doubt.

Pit Bits

At the Chesterfield National on May 28th and 29th saw everyone able to see one of the latest 1/12/1/10 cross breeds. This new branch of racing 1/10 circuits is sure to take off over here, just as it has in the States and Team Schumacher were showing off the latest TRC Pro 10 car. Notice five slots in the chassis both sides so can alter the weight distribution to suit the track.

Prototype mini-shaker plate on Phil Davies's Schumacher SPC car which adds a bit more rigity to the chassis as well as giving a mounting area for your driver figure.

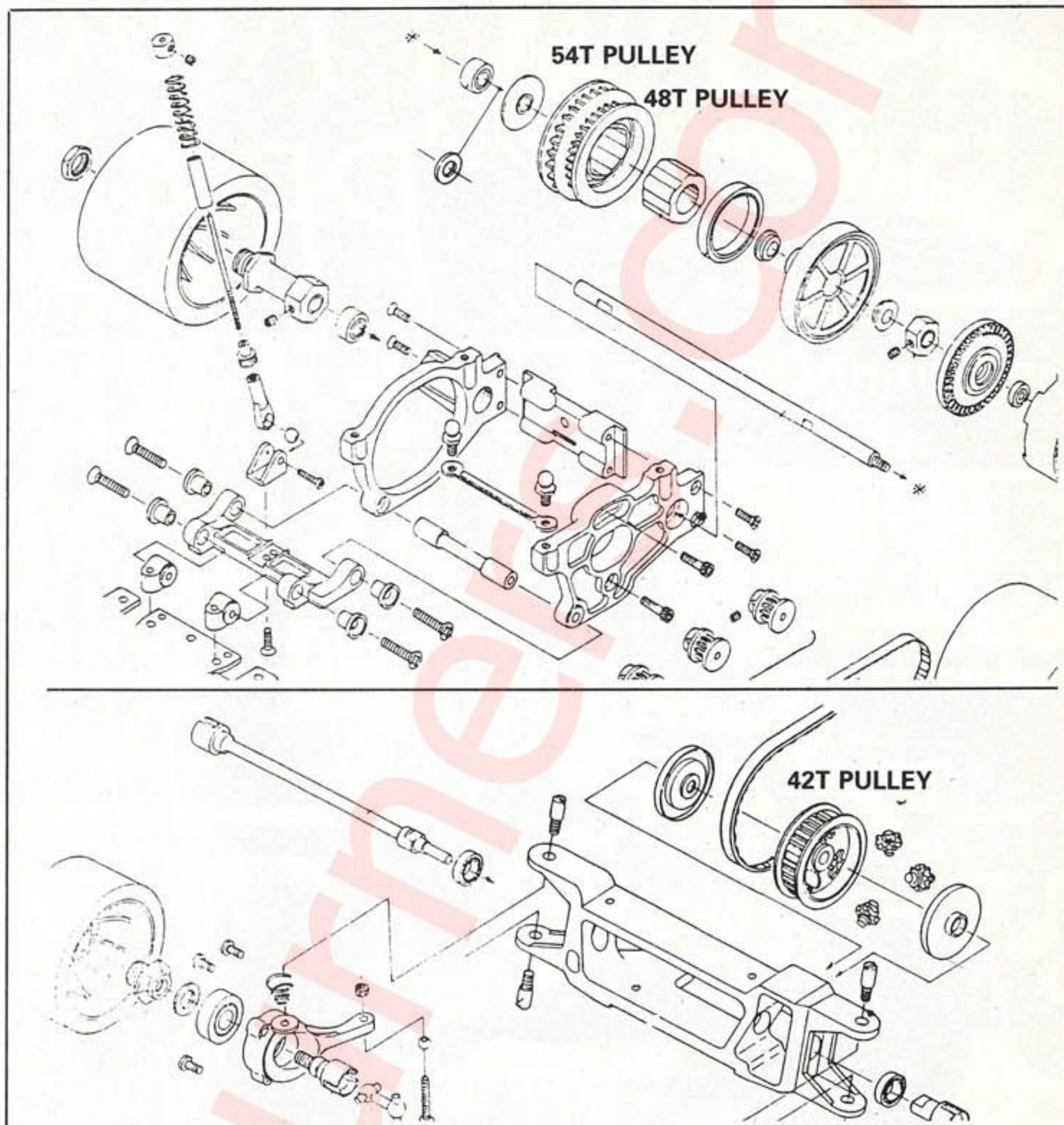
Team Parma were running the latest Parma 1/12 shells called the Tiga which seemed to work well.

Phil Davies was running a tiny shaker plate on his car, "a bit over the top though Phil to mount your driver figure", but the plate does add to the chassis rigidity.

Dave Towell was exhibiting a re-odourising additive for his Tractite Additive. Dave makes his tyre additive and then adds the odourising compound but apparently the effect of the odouriser is lost after 24 hours but when treated again, the odourising power is maintained. The re-odourising fluid is sold in a plastic 20 ml bottle and you are advised to add just a couple of ml to each bottle. The retail price will be about £1.65.

Word Of Warning

The person who told me this little snippet will remain anonymous, as he was grateful that Rob Roy did not attend the standard class event at the Chesterfield National. Apparently on the club night before the National, the aforementioned person had got his car well sorted, but at the National could not explain why his car was 'tramping' badly on right handers and the cause could not be found. The solution was only found at the end of the weekend. The hole for his transponder had been drilled in the shell too near to the front wheel and under full lock the wheel was jamming on the transponder. A simple error but it quite easily ruined a weekends racing so beware.



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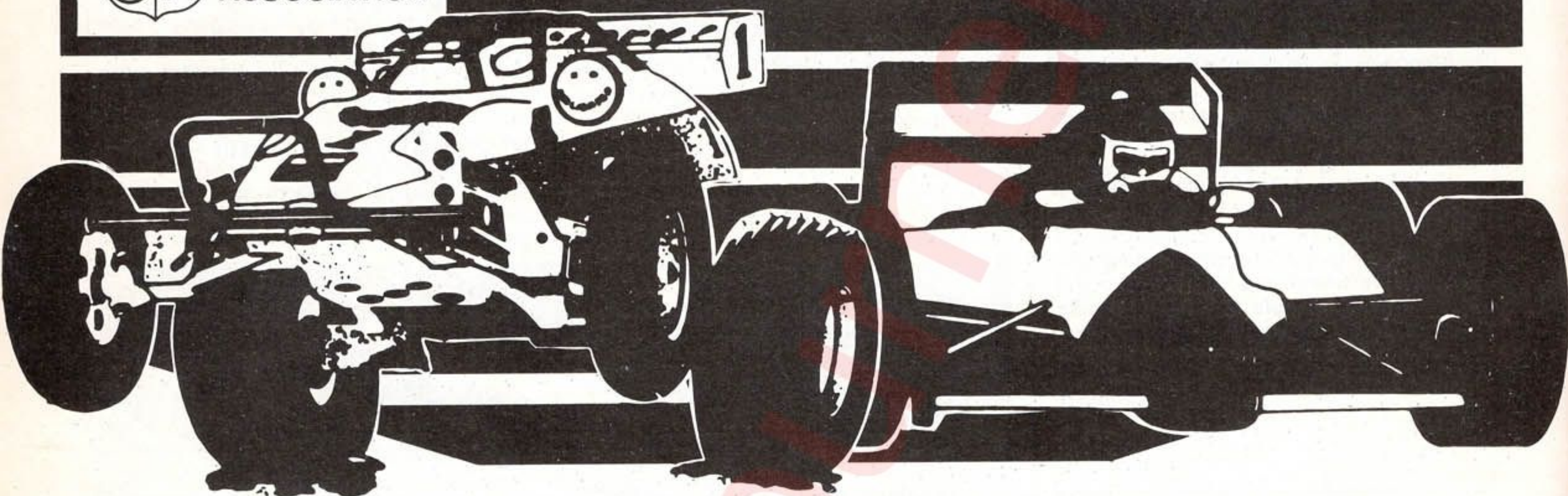
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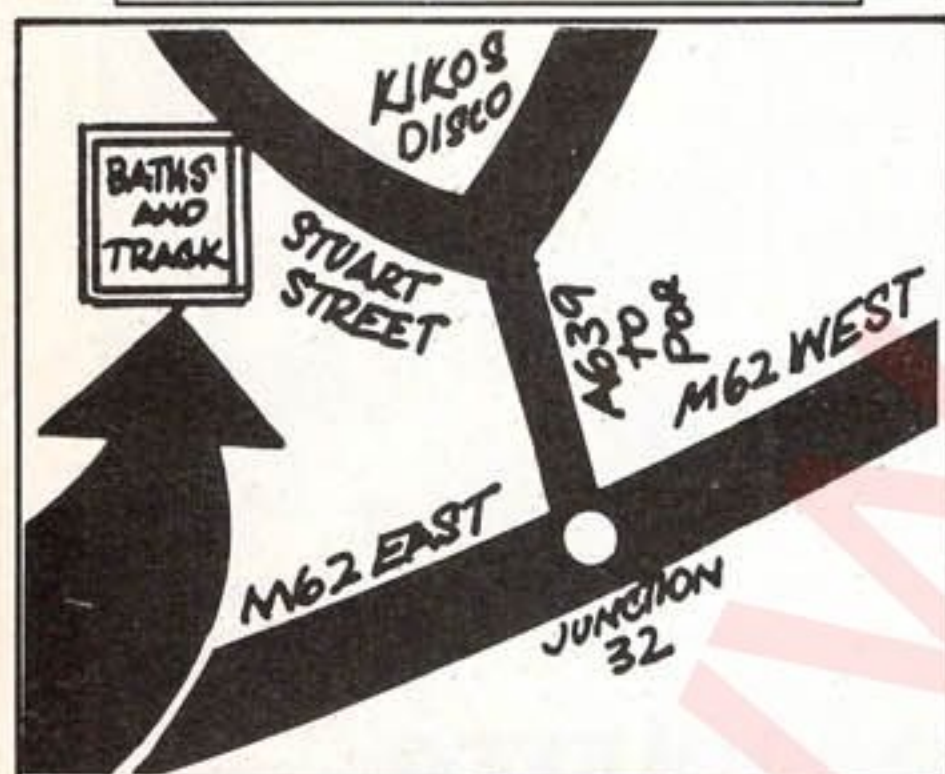
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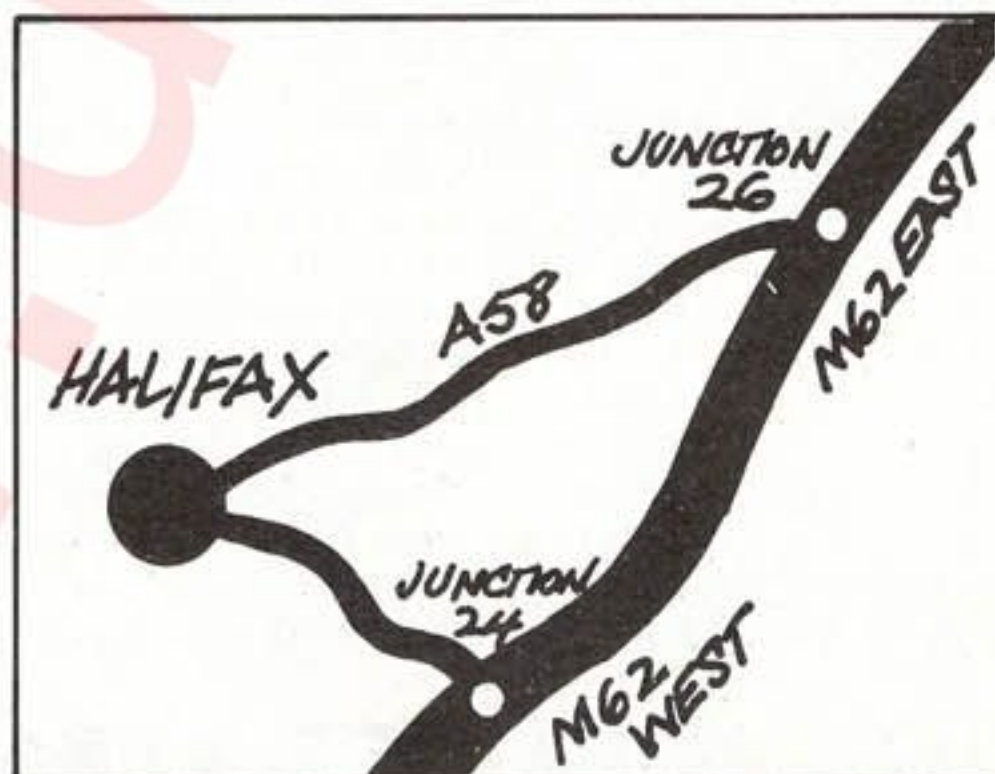


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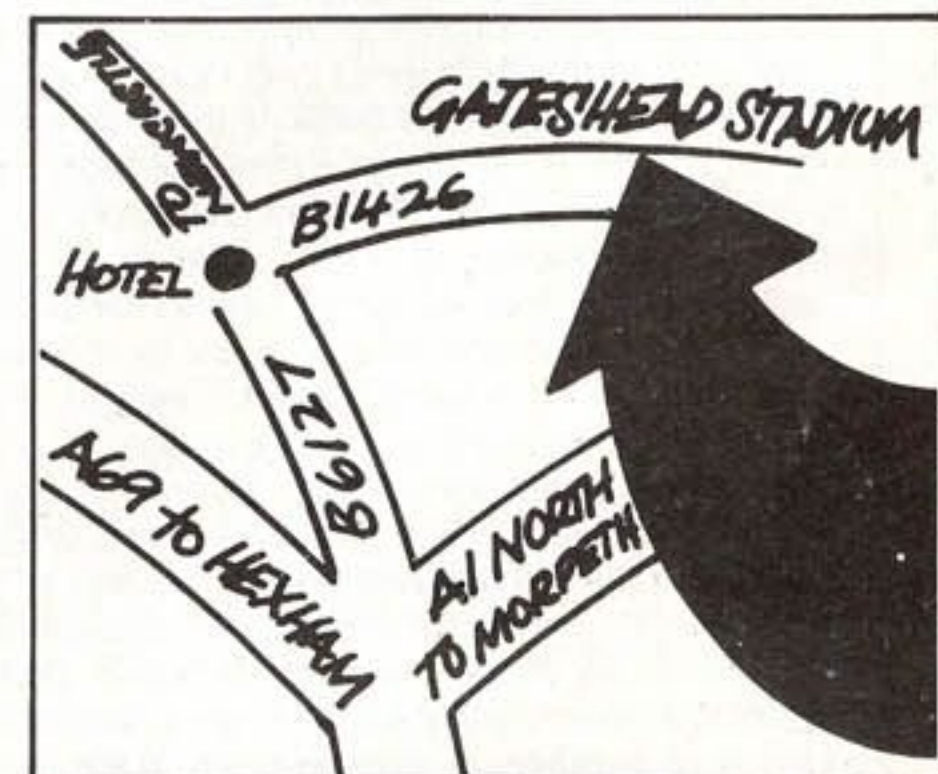
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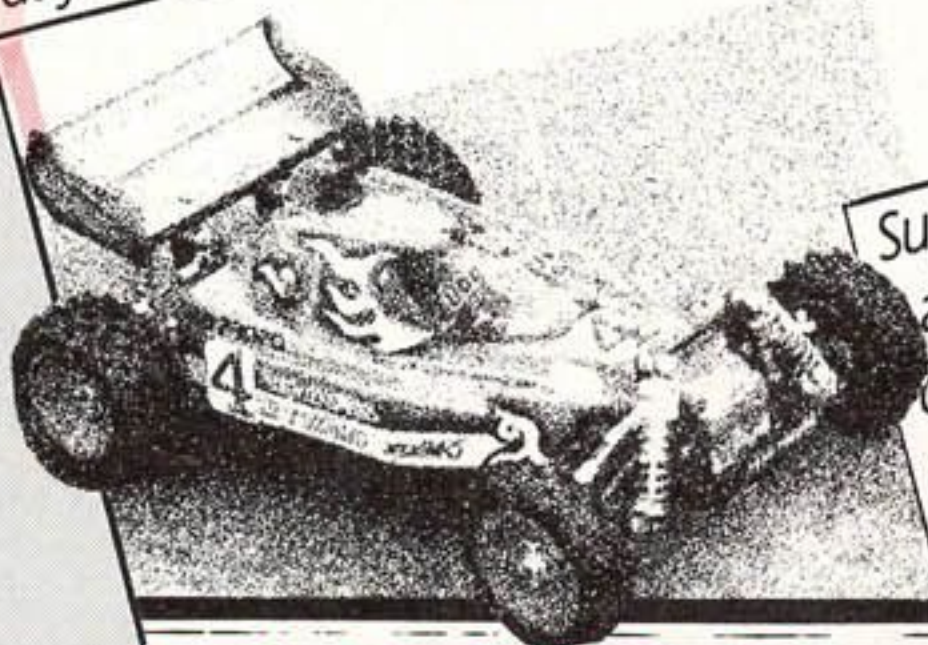
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So You Think You Can Solder

By John Murray

Soldering consultant John Murray takes a look at the whys and wherefores of soldering.

How many of you reading this article have been very excited at being the leader in a race or nearly catching him, when suddenly your car has stopped only to find the lead you thought was so securely soldered on to your Ni-Cads, has come away.

A good indication of the strength of a soldered joint is to study the angle of solder to the substrate.

Upon very close inspection of some typical packs, although they looked rather good, the angle of solder in relation to the surface of the Ni-Cad was very high (see Fig. 1). This is a good indication that the

Secondly the flux that is available in the solder that for electronic soldering is suitable for copper but totally inadequate for nickel.

Thirdly, nickel cadmium cells, to pack all that power in, need to be extremely compact and weighty which means a large mass. A solder joint is formed by melting the solder and heating up the surfaces that you want to tin. This will only happen of temperatures in the region of 230° C.

Soldered joints on Ni-Cad cells must also be created very quickly to avoid boiling off the electrolyte inside, which would dramatically reduce the life of the cells and seriously affect their performance.

Also as these cells are a large mass, they need a large soldering iron. A 25 Watt Iron with an 1/8 inch tip is like trying to boil a 3 pint kettle with a lighted match. What is re-

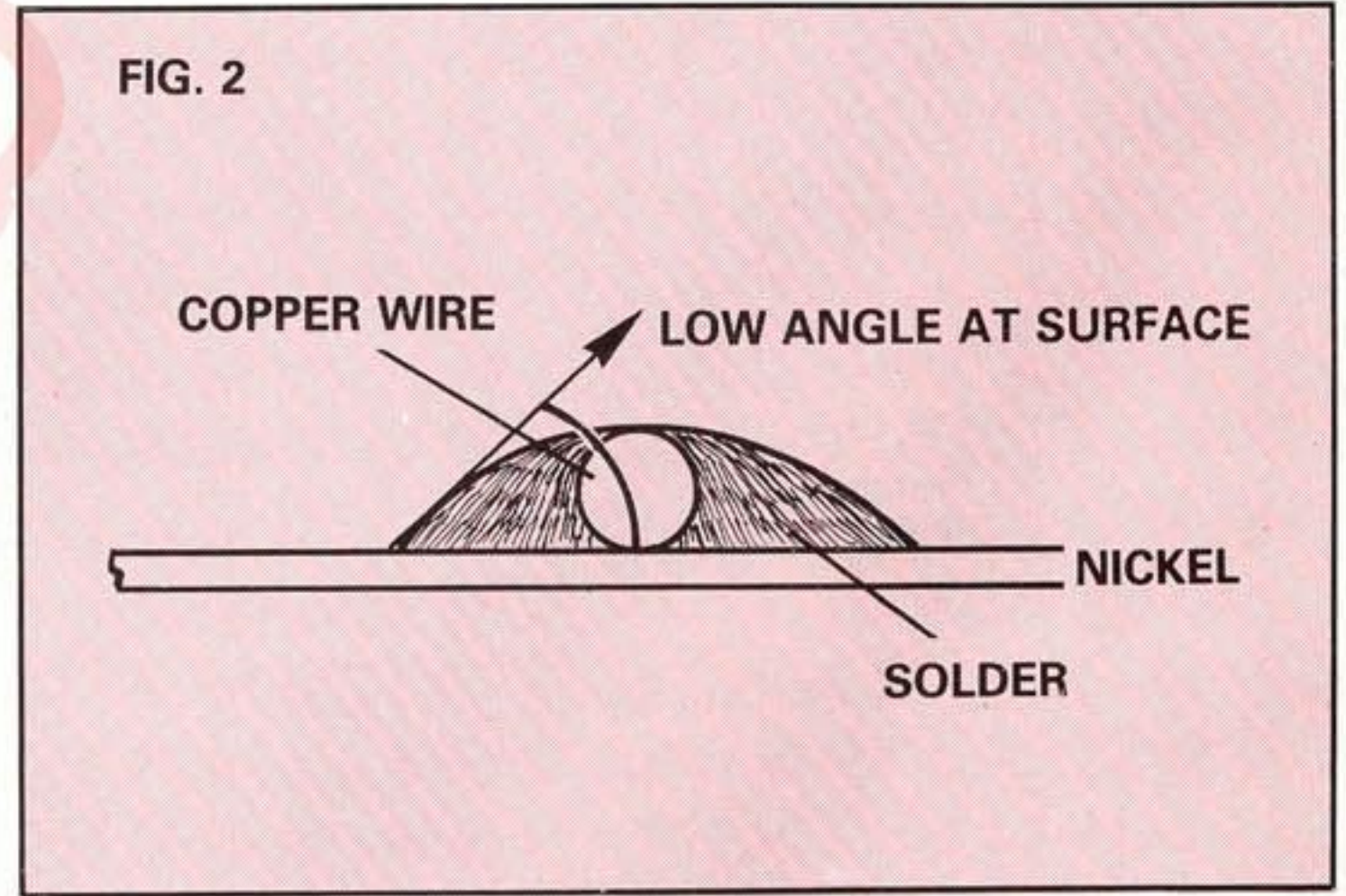
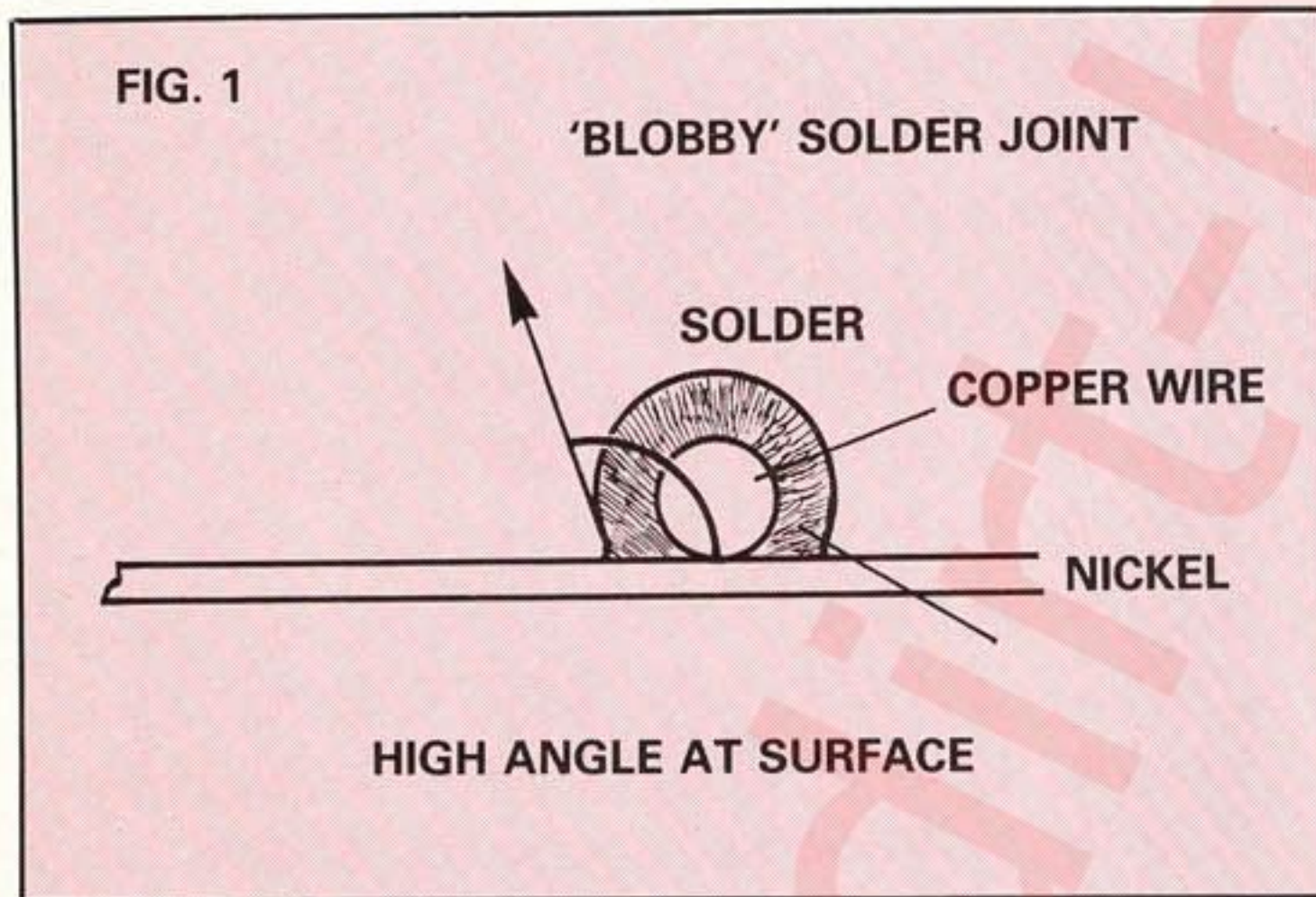
quired to raise this much metal up to 230° C is at least a 50 Watt iron with a 3/8 inch tip, ie. a good heat reservoir and a fast thermal recovery.

This in turn causes the next problem because as you heat metal oxidation occurs rapidly and as nickel oxidises at a very high rate, the higher you get the temperature, the worse this condition is, especially when the flux is totally inadequate.

Flux not only removes oxides and other contaminants but also prevents further oxides developing during the heating up process. It achieves this by becoming more active as its temperature rises. The 'electronic' fluxes are not able to do this on nickel as they are designed for copper, which is a much softer metal with softer oxides.

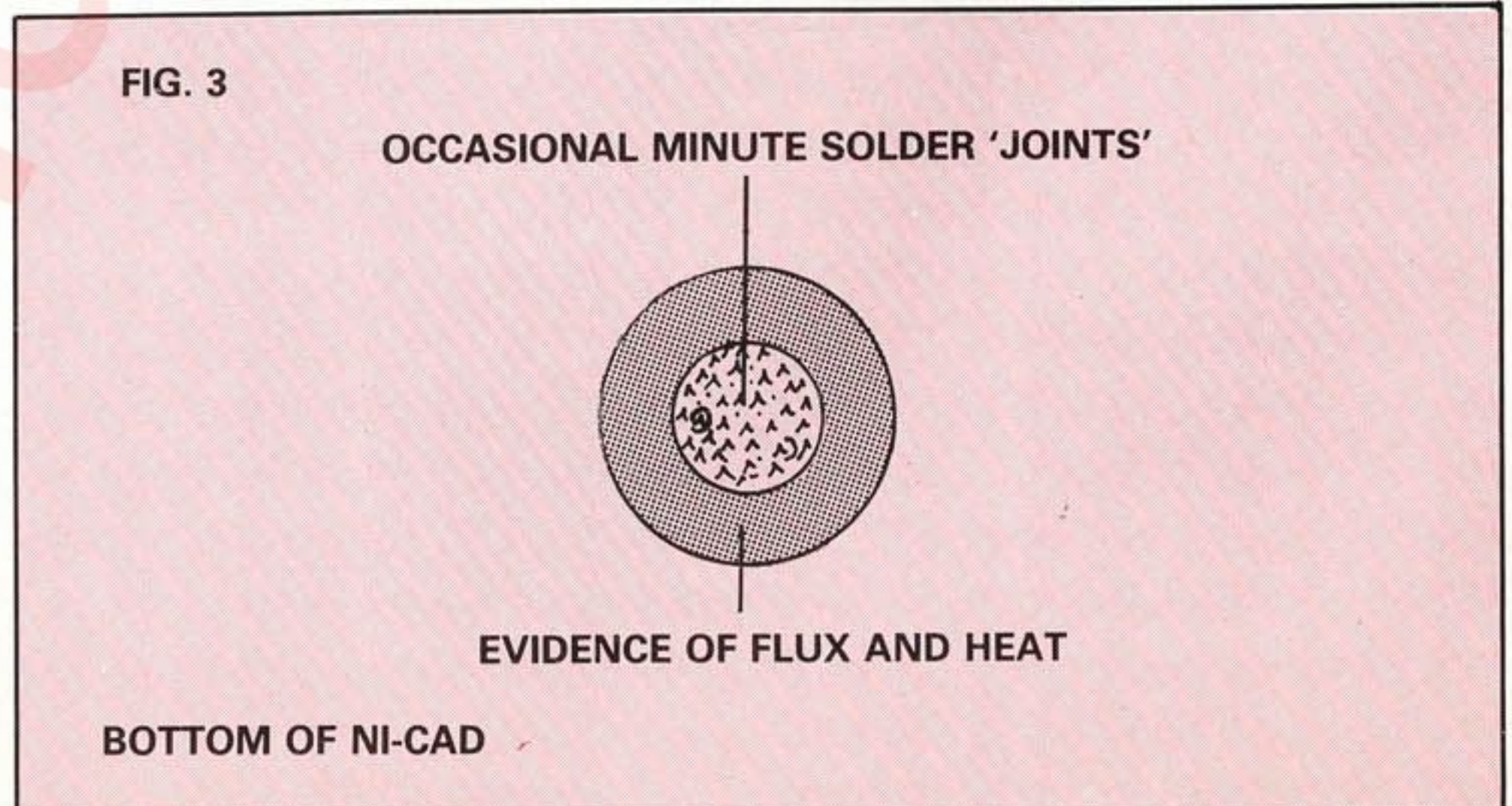
So in attempting to overcome all of these problems and provide repeatable reliable joints that anybody can make on Ni-Cads, a new flux had to be formulated.

It is well known that before attempting any solder joint on any material, the surfaces must be clean, very clean. Many people use sandpaper or its equivalent to clean Ni-Cads and this in turn leaves particles of abrasive impregnated in the surface of the nickel which also hinders the solderability. Never use wire wool or wire or brass brushes to effect this cleaning because this is potentially very hazardous. Wire wool can catch alight and burn fiercely if shorted across a fully charged Ni-Cad and at best may just discharge your cells, investigations into this little problem revealed a material that is much more suitable and doesn't release its abrasive particles — a non conductive abrasive material for removing the hard nickel oxides, called Abrade.



solder, although 'stuck' on the Ni-Cad, hadn't actually soldered to the metal surface. A good soldered joint should have a very low angle (see Fig. 2). A subsequent pull-test proved this point and upon inspection of the area underneath where the solder was shown that only a very few tiny points or areas had actually soldered to the metal case (see Fig. 3). Subsequent investigations have shown that there are several problems — not just one.

Firstly, a Ni-Cad (nickel cadmium) cell is in a case made of — Yes, you've guessed it — Nickel! This is considerably more difficult to solder than copper. The oxides that nickel forms are invisible, unlike copper that goes to a dark brown then green colour. Nickel oxides are also considerably harder.



After some research an entirely new flux for the modeller has been developed — nickel flow — specifically for soldering to Ni-Cads.

Apart from improving the solderability of nickel many times it has several other distinct advantages, namely it is easy to apply, it is non acidic and just like electronic flux can be left on, although ALL fluxes are best removed. To remove Nickel-Flow you simply use a damp cloth to wipe the flux away.

As previously stated, the soldering process needs an iron with a good heat reservoir and at least 50 Watt capacity. The Wasp Superheat 12 Volt iron meets this specification and is specially designed for soldering to Ni-Cads.

Where else to demonstrate the flux but at Wasp Racing? One of their services is the

'Cell Doctor', where they strip down packs and match them. They therefore know something of the problems of 'Ni-Cad soldering'.

I took with me to the demonstration some large flat pre-fluxed braid in place of the usual one millimetre copper wire that is usually used to join cells. This was an attempt to achieve a much lower profile soldered joint to reduce the size of the Ni-Cad pack and the weight.

Now I know you're all eagerly awaiting the knowledge as to how the demonstration went.

Well, the Wasp people did not want me to ruin any of their customers' Ni-Cads so they produced a couple of very old ones out of their scrap box.

With the new special abrasive, that was

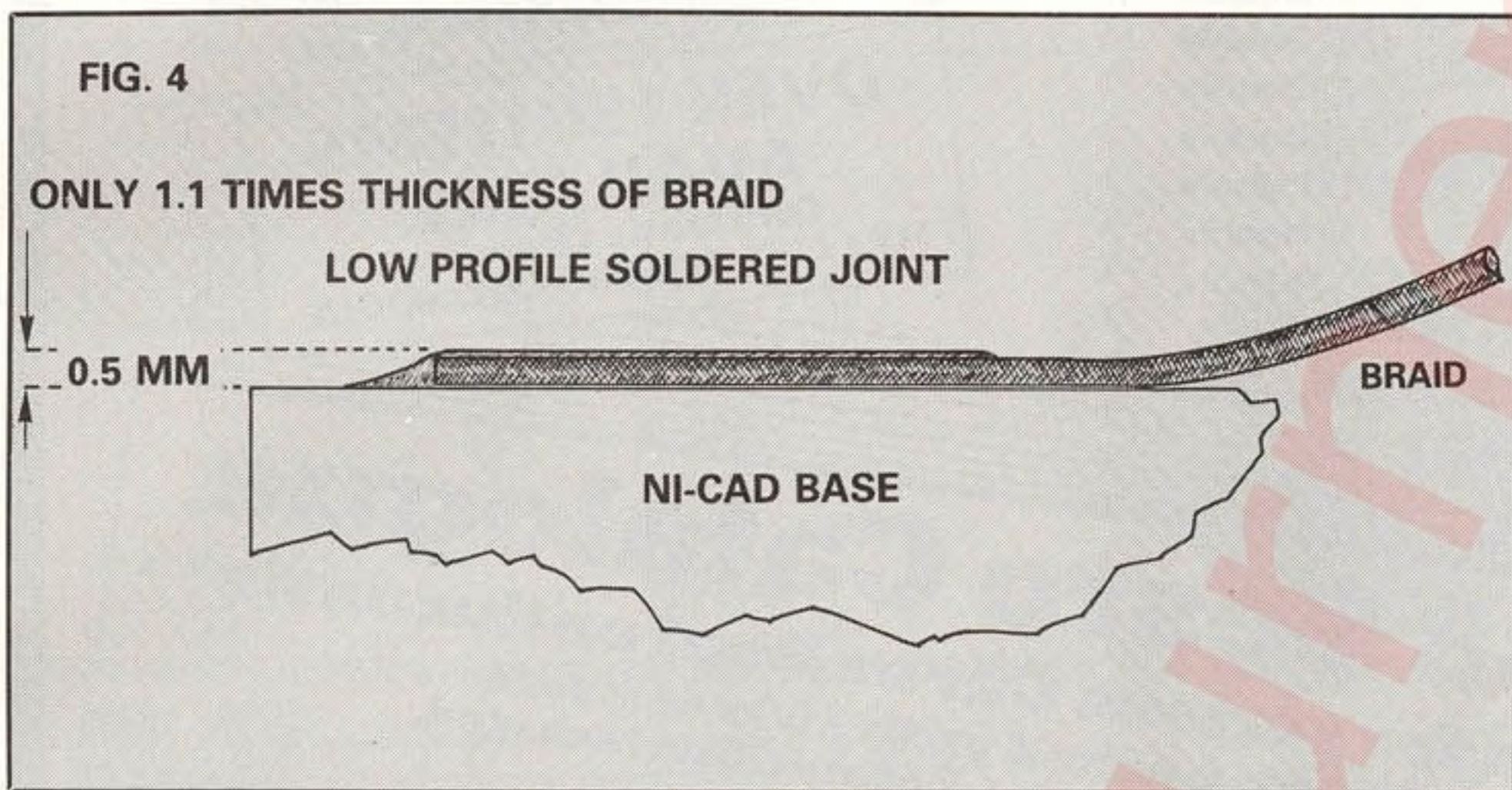
an insulator and did not embed particles into the nickel surface, I cleaned the side and bottom of the Ni-Cad case and also the live terminal. Applying some of the Nickel-Flow flux, I used the Superheat soldering iron that was provided.

Placing the solder on top of the cleaned and prepared area, I applied the soldering iron on top of the solder and the iron rapidly melted the solder which then transferred the thermal energy through to the nickel case. Low and behold the flux prevented oxidation and greatly encouraged wetting so enabling us to tin the surface of the Ni-Cad very successfully indeed.

I then proceeded to solder some of the braid onto the Ni-Cad and this too was extremely successful as the braid absorbed some of the solder and kept the soldered joint an extremely low profile (see Fig. 4). These joints were achieved in about two seconds, no more.

To prove the strength of the soldered joint, we then tried to peel the braid back and pull it off the Ni-Cad. The proof of this test was that the very heavy braid eventually broke without any signs of it becoming detached from the Ni-Cad casing.

Wasp now confirm that they will be using the Nickel-Flow on all customer parts in future. They also intend to use the braid at customer's request where low profile and reduced weight packs are required. The flux, abrasive, solder, braid and the soldering iron will be available as a specialist kit, in the near future. Wasp tell me that these products are not available individually, suitably packaged for the modeller with all the necessary instructions to achieve perfect Ni-Cad soldering.



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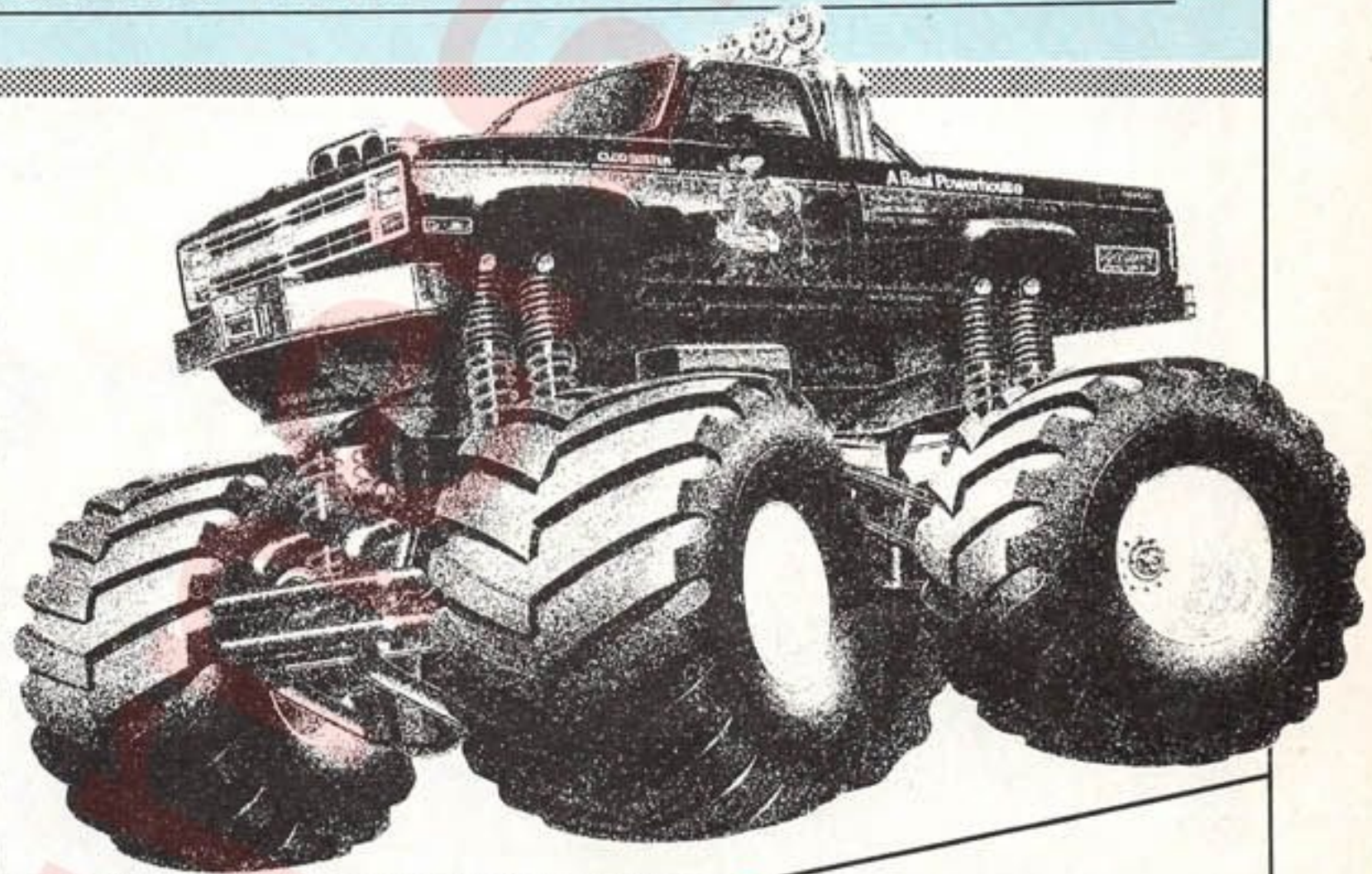
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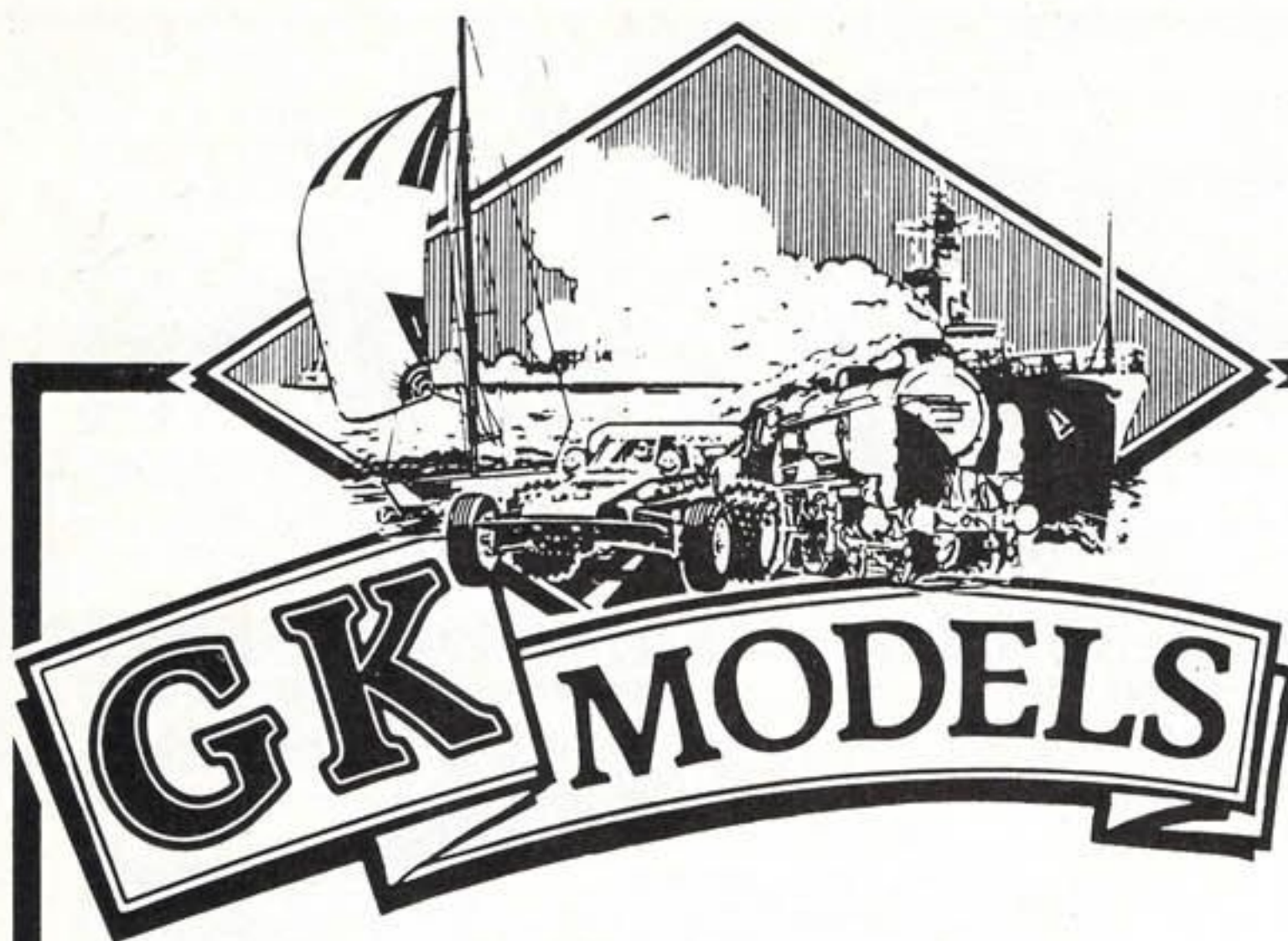
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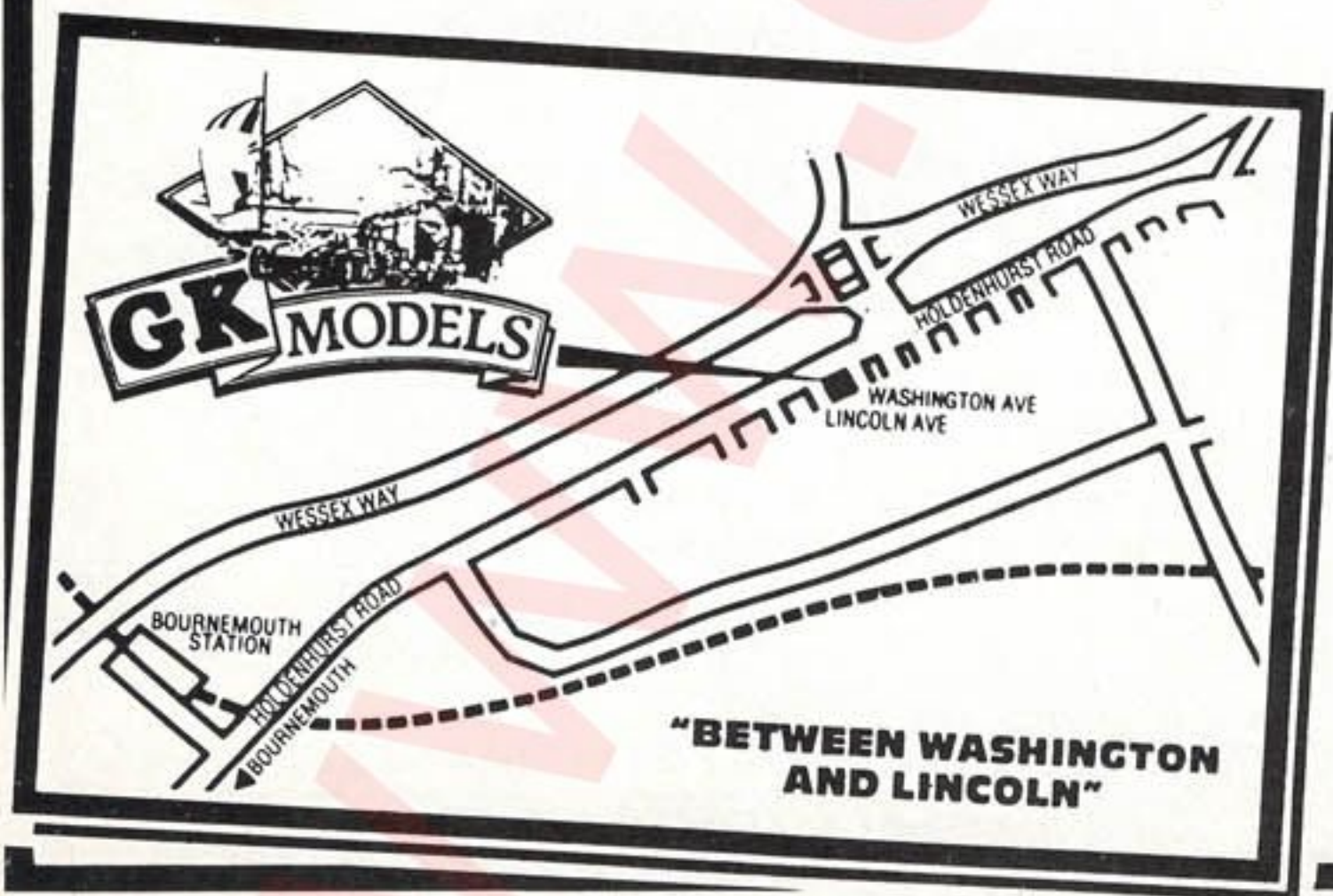
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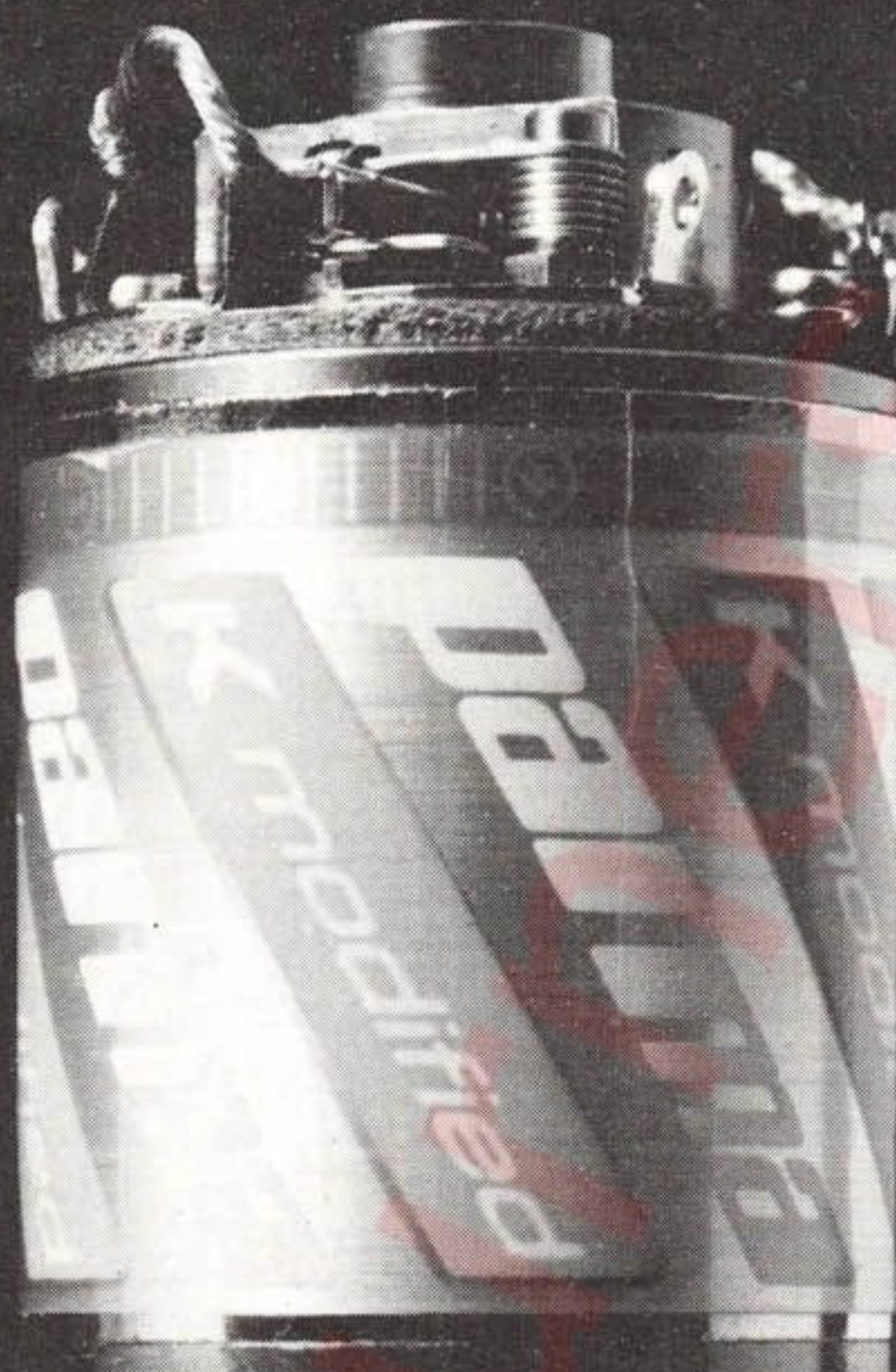
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14010/11/12	19 turn Double	Y/K/C	30,000
14013/14/15	20 turn Double	Y/K/C	32,750
14016/17/18	15 turn Quad	Y/K/C	33,250
14019/20/21	17 turn Quad	Y/K/C	32,250
14022	28 turn Single	Yokomo stock	27,000
14023	27 turn Single	K-stock	27,000
14024	27 turn Single	Cyclone stock	27,000
14025	16 turn Double	Cyclone	33,000
14026	19 turn Single	Cyclone	31,500
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Note: Y = Yokomo. K = K-Motor. C = Cyclone

All motors are supplied in protective packaging with instructions for installation and timing.



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Personally Speaking

It seems as if certain people are labouring under a misconception that Radio Race Car are responsible for the formation of the M.C.C.A., formerly known as the British Drivers Association. We at R.R.C. wish it to be known that Radio Race Car are in no way responsible for the origination of this new association and that NONE of it's directors OR staff had anything to do with it's formation. We hope this clears this matter of conjecture up once and for all and so we would imagine do the people who deserve the credit for starting this new association.

Still we suppose that's the price we pay for bringing you news!

Schumacher Racing

Whilst on the subject of rumours, well almost, it is rumoured that Schumacher Racing have been burning the midnight oil to produce a new two wheel drive car. If Cecil has as much success with it as his CAT, then we could see a UK challenger to the RC-10 and Ultima we wait anxiously!

Circuit Racing

We told you it was going to be big and we were right, on road racing has found the UK in a big way. At long last racing cars look like the real thing, speeds are high and real circuits are available. Two on road kits are reviewed in this issue along with a report from Lilford Park on the biggest meeting yet. Several more on road car kits are yet to be reviewed by R.R.C. so keep looking.

Beware

Something that has long concerned most of the model trade, Radio Race Car in-



cluded, is the growing trend toward back door imports by certain companies. As a consumer it is very tempting to make your purchases at a much reduced price, let's face it most of us have been tempted at one time or another. However have you considered what allows the vendor to sell at the much reduced price, no? Well as someone who is obviously enjoying and therefore concerned with our sport maybe you should. If confronted by this modelling equivalent of the airline bucket shop you should ask yourself a couple of questions before parting with any of your hard earned

cash.

ONE. Is the vendor trading from a retail outlet? If not he may be difficult to track down should any problems occur with your nice new kit or should any parts be found missing.

TWO. Should you need spares, or repair facilities in the case of radio, speedo or servo failure are they available from the vendor? There's nothing worse than buying locally then finding that in the case of accident or repair you have to travel 60 or 70 miles to obtain the replacement, or worse that there are non!

THREE. Here we come back to the rumours again. It has been rumoured that some goods are no more than good copies of the original item. Again we must state that these are no more than rumours, there's normally no smoke without fire though. There is however no doubt, that items solely for the UK and possibly European markets are vetted by agents before they are released within their home markets. This is done solely for the purpose of upgrading the original item where necessary, back door imports are not items where any upgrade work has been carried out as they are intended for sale outside the UK market.

FOUR. By not dealing with officially appointed agents, who go to a lot of time and even greater expense to make certain that the equipment you are buying is the genuine article. Who make sure that should that equipment fail or get broken, that spares or an officially appointed repair agent is available to you. By not purchasing from that dealer you may be shortening his livelihood and the livelihood of our sport.

FIVE. It's better to be safe than sorry always purchase your valuable equipment from a reputable appointed dealer.

THEY SAID THESE THINGS WERE QUICK BUT... THIS IS RIDICULOUS



RRC 1/10th CIRCUIT MEETING

17th-18th September

Radio Race Car is holding a 1/10th Circuit Meeting at Mendip Race Circuit. The event is for a total of 120 drivers and will, if possible, be comprised of three classes.

The classes will race in separate heats and finals, there will be finals for everyone. Trophies for all A finalists and first, second and third in all other finals.

The circuit will be open from mid-day on Saturday 17 September for practice, over-night camping and caravanning will be available.

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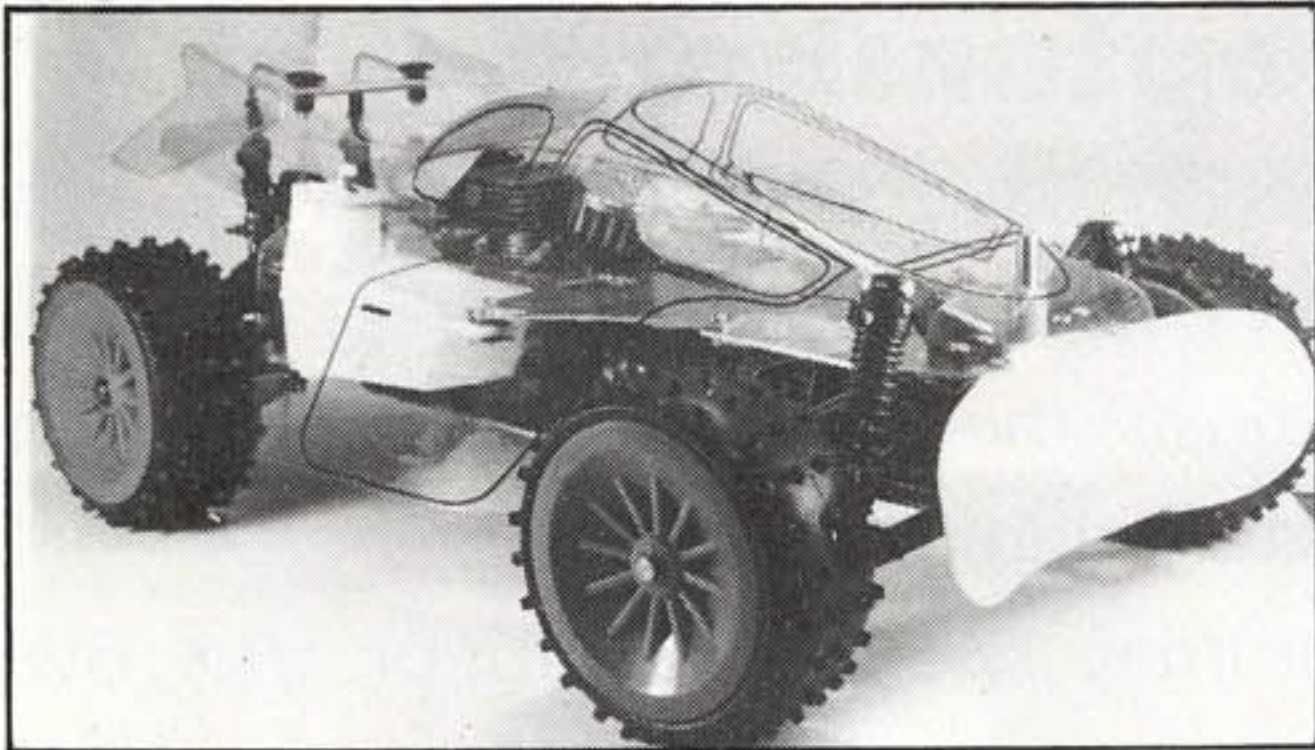
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MARDAVE METEOR



The Winner of the Mardave Meteor competition is Mark Johnston of Liverpool. Well done Mark your Meteor is on its way.

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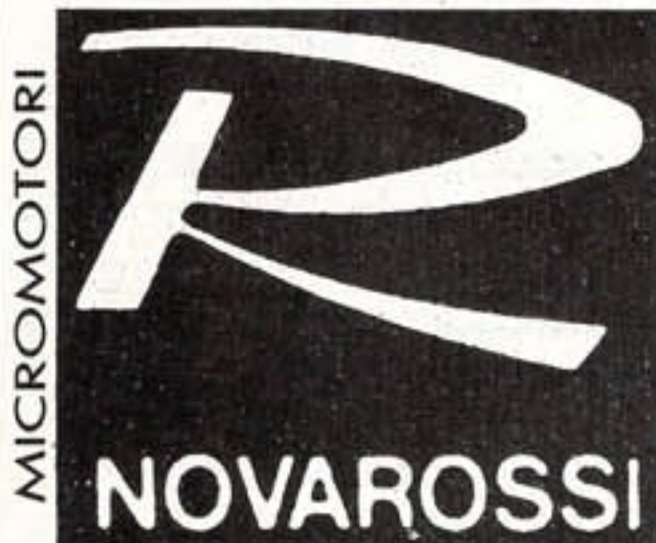


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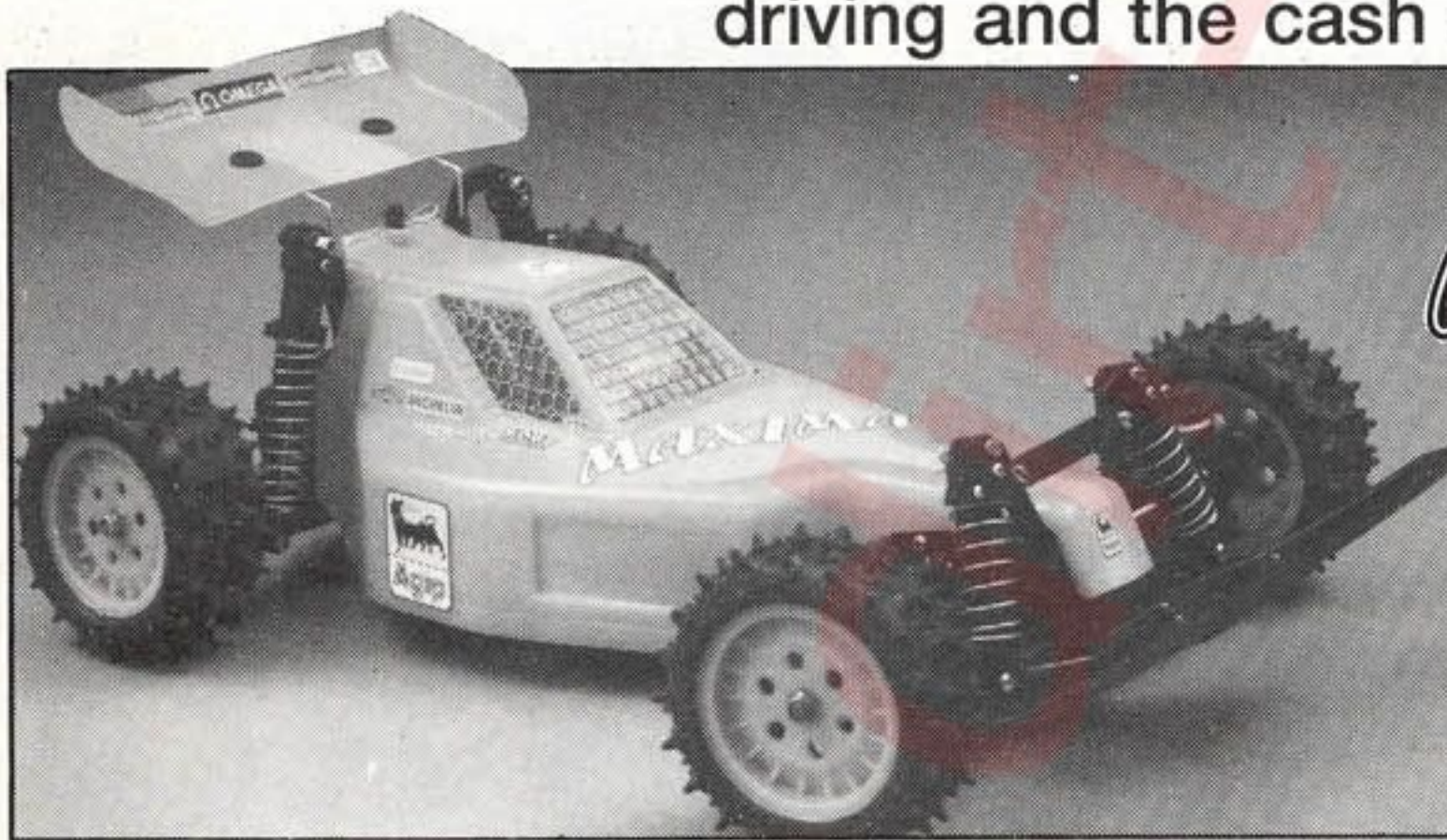
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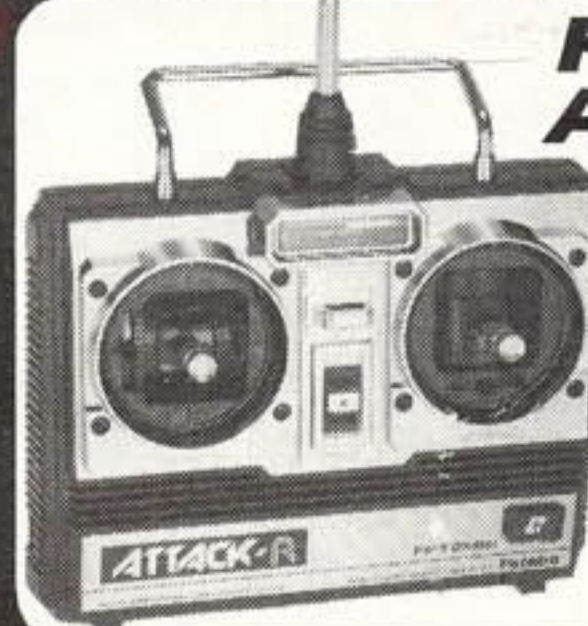
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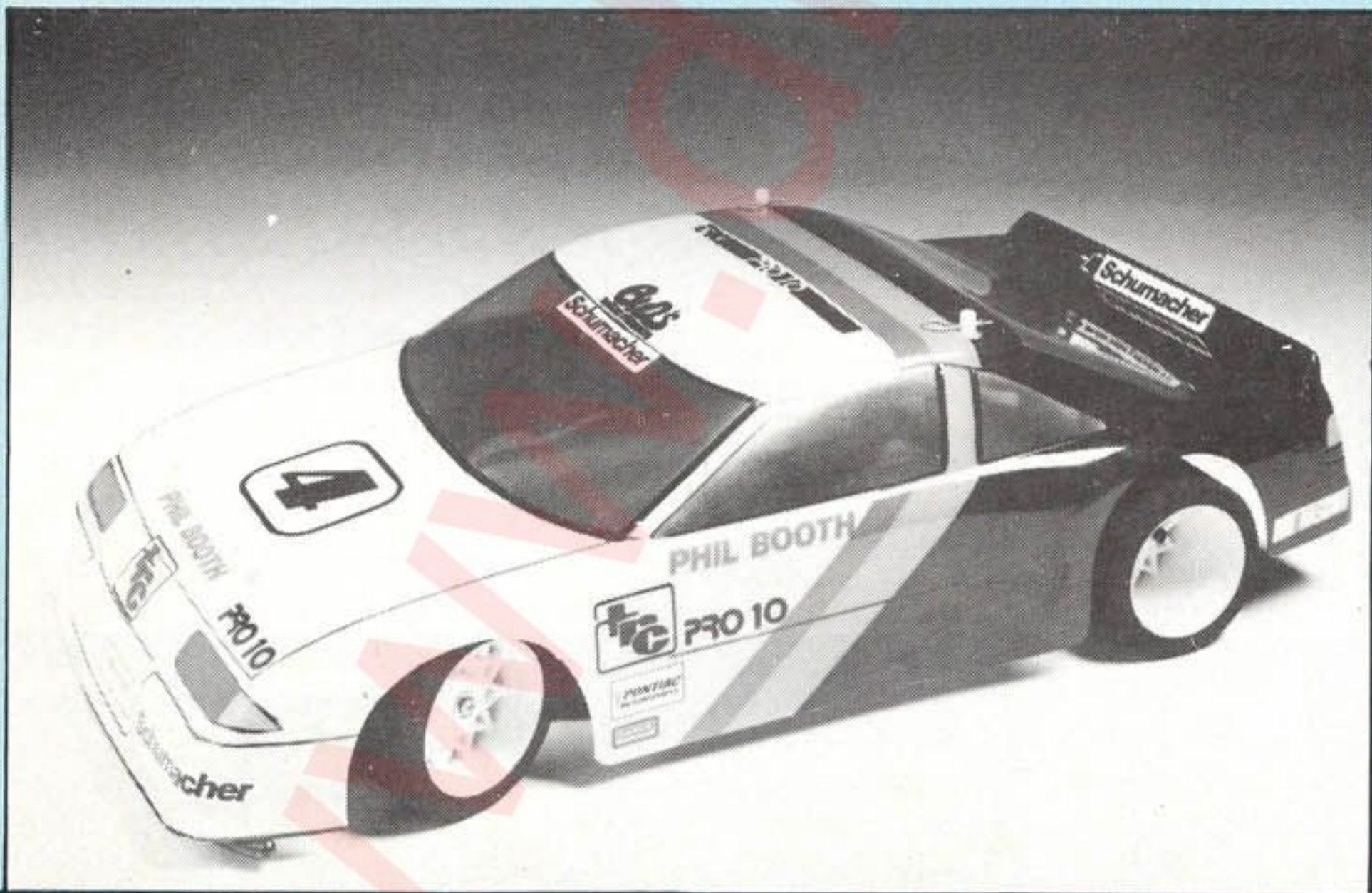


TRC One Tenth

Radio Race Car looks at Schumachers new circuit car.



Saloon style, wont it be nice to say look at that Sierra/Chevrolet go.



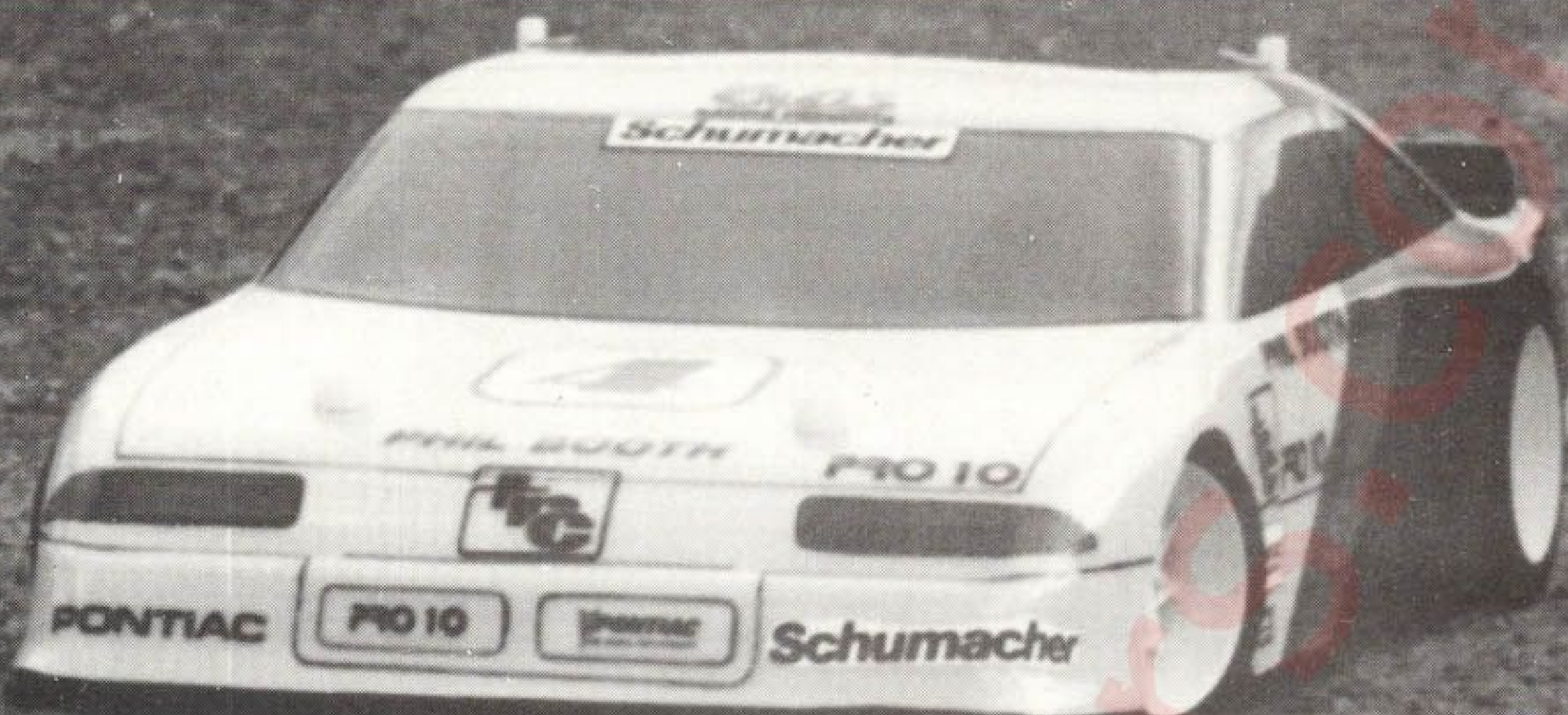
If someone mentions Florida to you what is the first thing that you think of, sunshine, oranges, shorts, Miami Vice? What about Lake Whippoorwill? Lake what? Whippoorwill, according to our dictionary, a Whippoorwill is a small, darkish coloured bird somewhat akin to the Nightjar, however it has an annoying trait, that of hollering it's name at all and sundry. We must therefore presume that Lake Whippoorwill has an abundance of these feathered opponents to the noise abatement society. We can further hope that no one ever teaches these birds the art of synchronisation.

There is one other claim to fame that Lake Whippoorwill has, it played host to the US one tenth circuit car National Finals this year and guess what was the winning car? The TRC of course.

The Phone Rang

As in all the best suspense novels the phone rang, a voice at the other end of the phone whispered, tried to communicate, hoarse gruff words were being spoken. A chill ran down my spine. Was this the beginning of some horrible nightmare, who did this disembodied voice belong to, maybe it was the tormented soul of some poor undead r/c driver trying to contact the world he didn't want to leave? In a flash it became clear, this was no spectre, no ghostly apparition, it was no more than Tim Walden suffering from one of the worst head colds I've ever heard, he did sound bad!

Anyway the upshot of it all was we received a TRC one tenth circuit car for review, the same TRC car that took the US National title at Lake Whippoorwill, you know the place with the noisy birds!



th Circuit Car

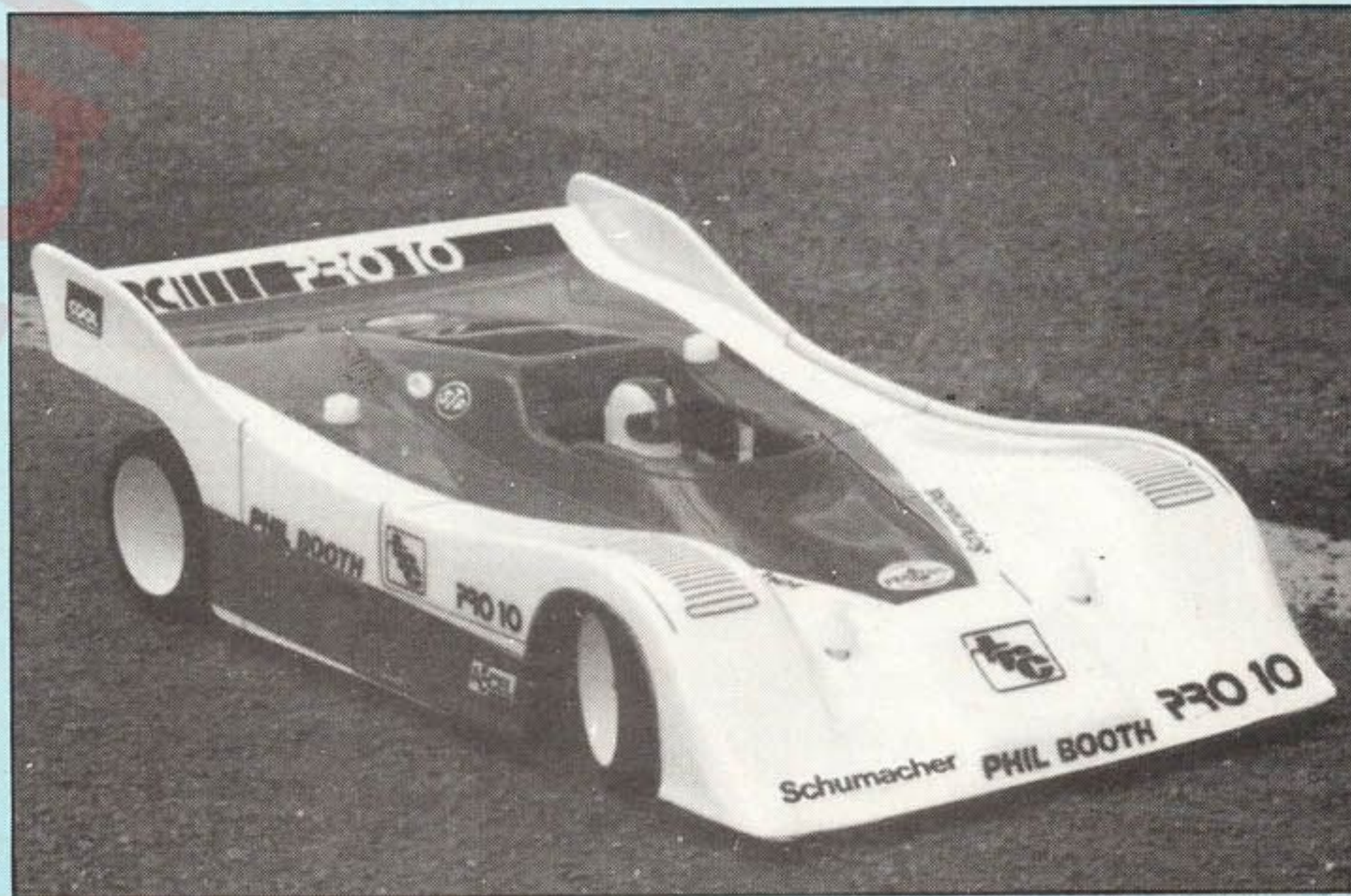
And All Because

It had been a long time since anyone had sent me chocolates, but there on the desk was a parcel that could only be a large box of chocolates. As the wrapping paper was ripped off I remember thinking how peculiar the wrapping paper was, still perhaps plain brown is in this year, you never know these days! Then a compliments slip fell from the wrapping, Schumacher Racing Products, surely this couldn't be, surely not, but here it was the TRC one tenth circuit car all packaged in a box that would be easily dwarfed by a large box of chocolates, well reasonably large. Inside neatly packaged and presented lay several pieces of car.

The first piece to catch your eye is the black chassis, these days black chassis are normally made from dyed GRP, not so with this car, black means graphite and graphite will give you the stiffest chassis whilst saving you the most weight. Beam axle, this component is certainly built to last from aluminium and both kingpins have to be drifted home, this is a task that needs great care and patience if it is to be done successfully. Do not be tempted to put the kingpins in place with one almighty blow of the hammer because they will bend or deform, the kingpins have to be drifted into place firmly but little by little, you must also ensure that both kingpins are of equal length otherwise your car will lean to one side or the other. The rear pod is assembled next, this is the part of the car that holds the motor, transmission and axle in place, it is also the main adjustment point of the car but more about that later. A single easy to assemble shock absorber soaks up all the loads that the car is liable to be subjected to under racing conditions.



Le Mans style and what a beauty the wedge shape is, aerodynamically perfect too.

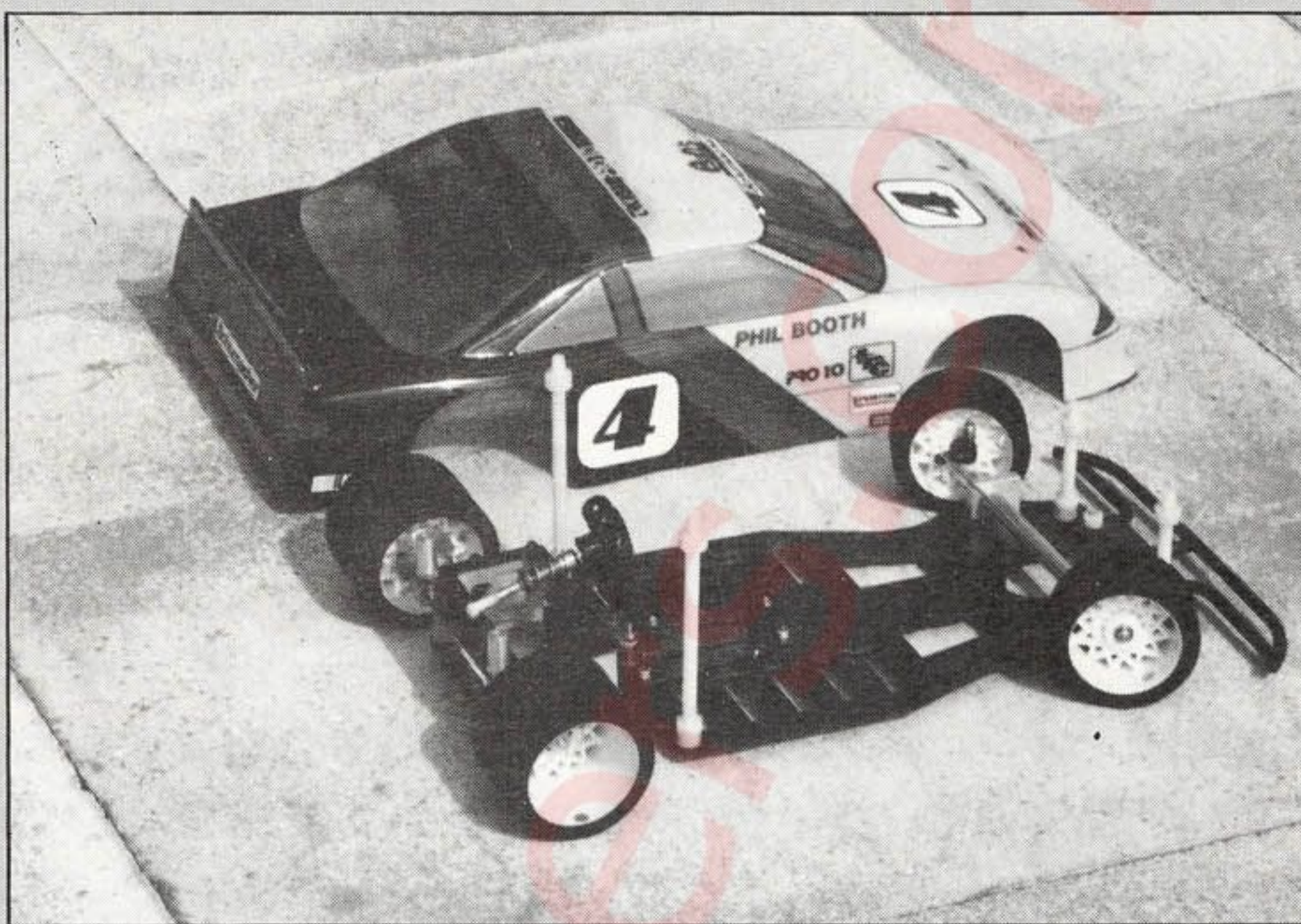


Building

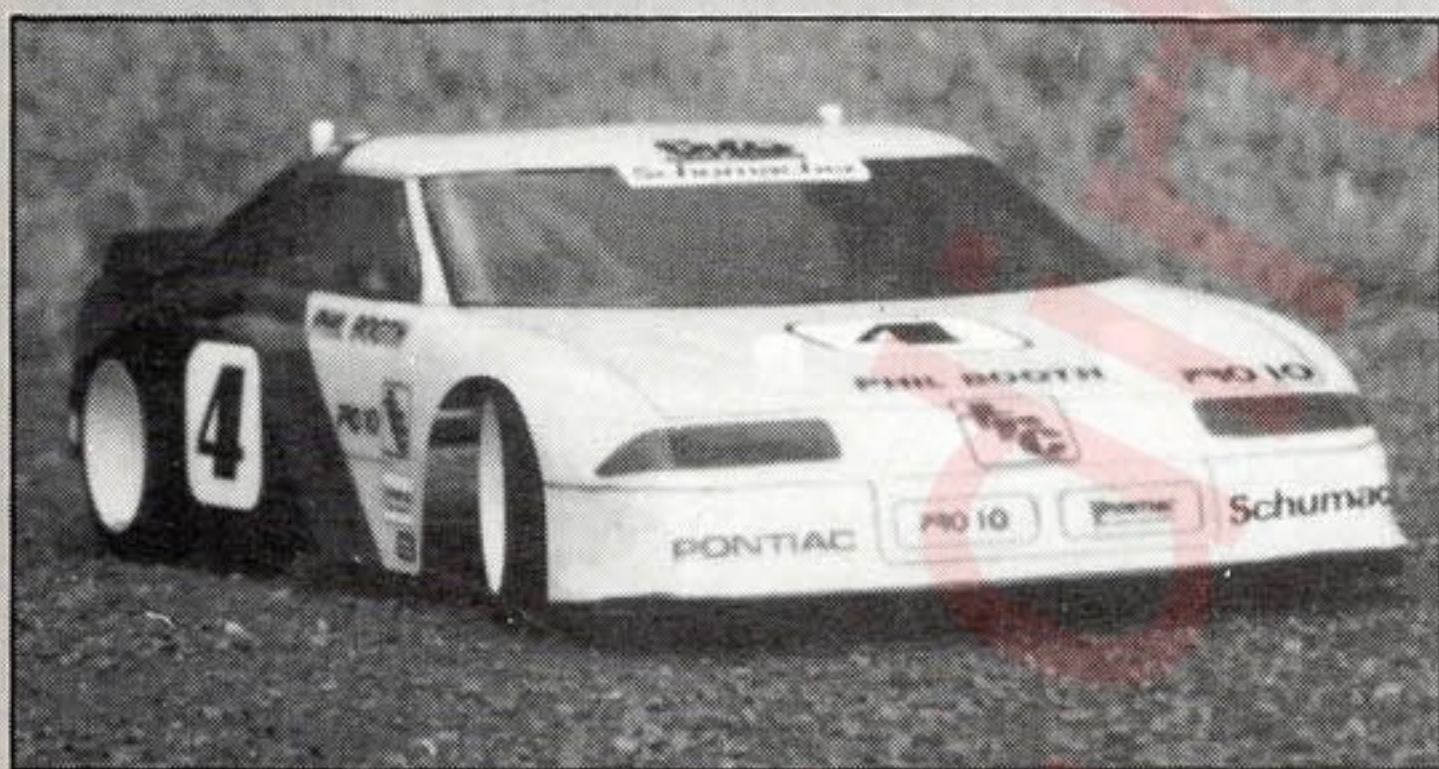
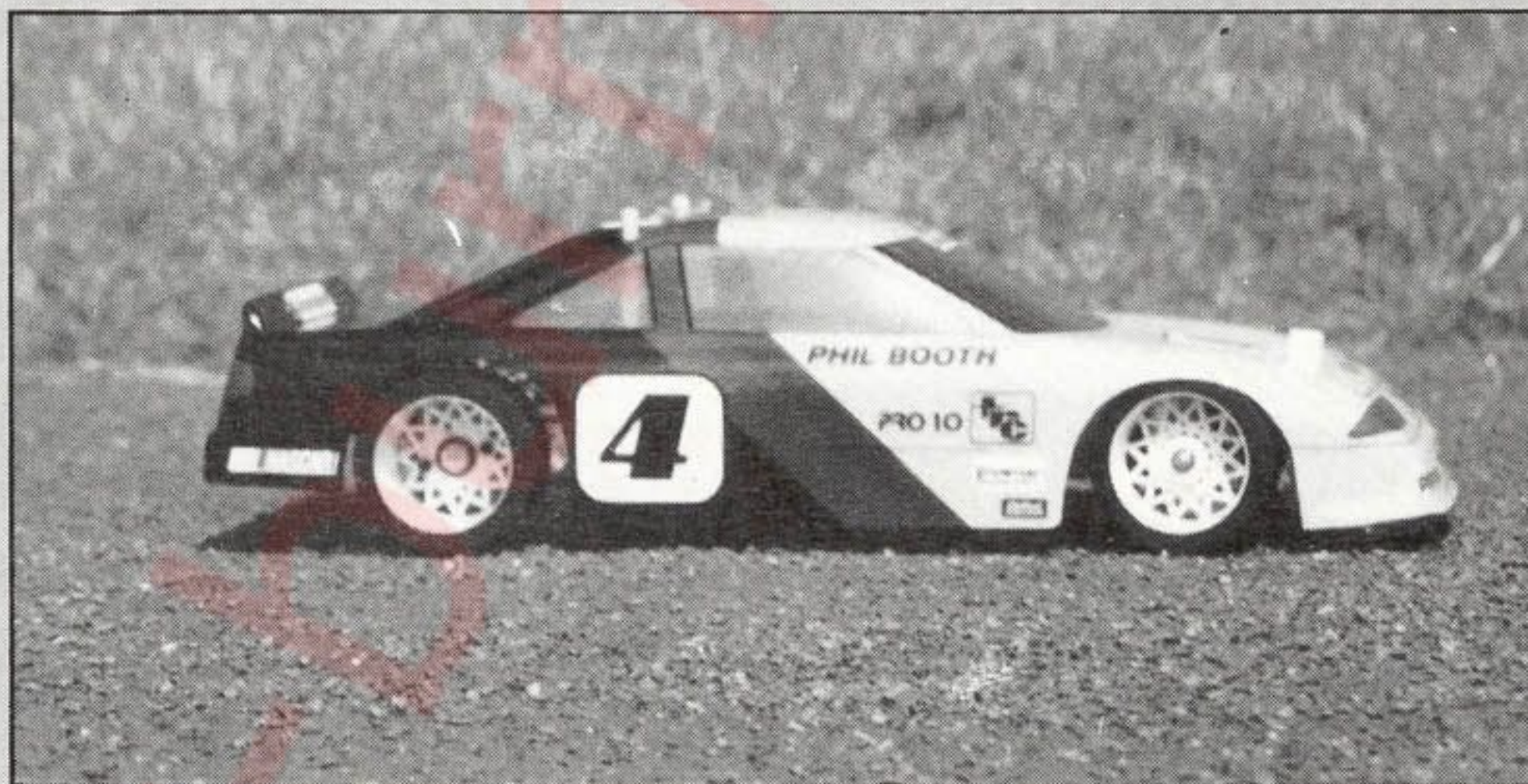
There really is very little to say about the building section of this review as once the kingpins were driven home the rest was very straightforward. All parts were a joy to assemble as they fitted straight from the box with little or no filing, adjustment or upset, just follow the instructions. Setting the car up is where it pays to spend the most time making sure the car is absolutely 100% free from tweaks and the chassis is running flat. This is easy to do once you become accustomed to the car as there are only two adjustments to make. Where the rear pod attaches to the chassis there are two spring loaded screws secured with lock nuts, it is these screws that adjust the horizontal relationship of the pod to the chassis and thus enable you to run the car as flat as possible, should you take the car racing and you should! Then it is advisable to check that the car is running flat often, this is what's known as checking the tweak.

Driving

A new experience awaits the builder when the car is complete, only test drive on flat, smooth surfaces, total ground clearance is around the three eighths of an inch mark. This ensures that the car can be driven as fast as possible around all the corners and take it from us the TRC can be driven very fast, Radio Race Car took the car to Lilford Park where it proved to be both reliable and strong, we saw the guy who was driving it leave the straight at around 35 mph, do two full somersaults hit the catch fencing and then get straight back in the race.



TRC rolling chassis simple, workman like and efficient.



Conclusion

This is one of a variety of one tenth circuit cars being imported into the UK at present, it is one of the best! Maybe the fact that it bears more than a passing resemblance to the Schumacher C car has something to do with that?

TRC Circuit car is available from Schumacher Racing Products stockists everywhere.

TEAM ASSOCIATED RC10

IFMAR WORLD CHAMPION '85-'86 ROAR 1:10 NATIONAL CHAMPION ORRCA NATIONAL CHAMPION



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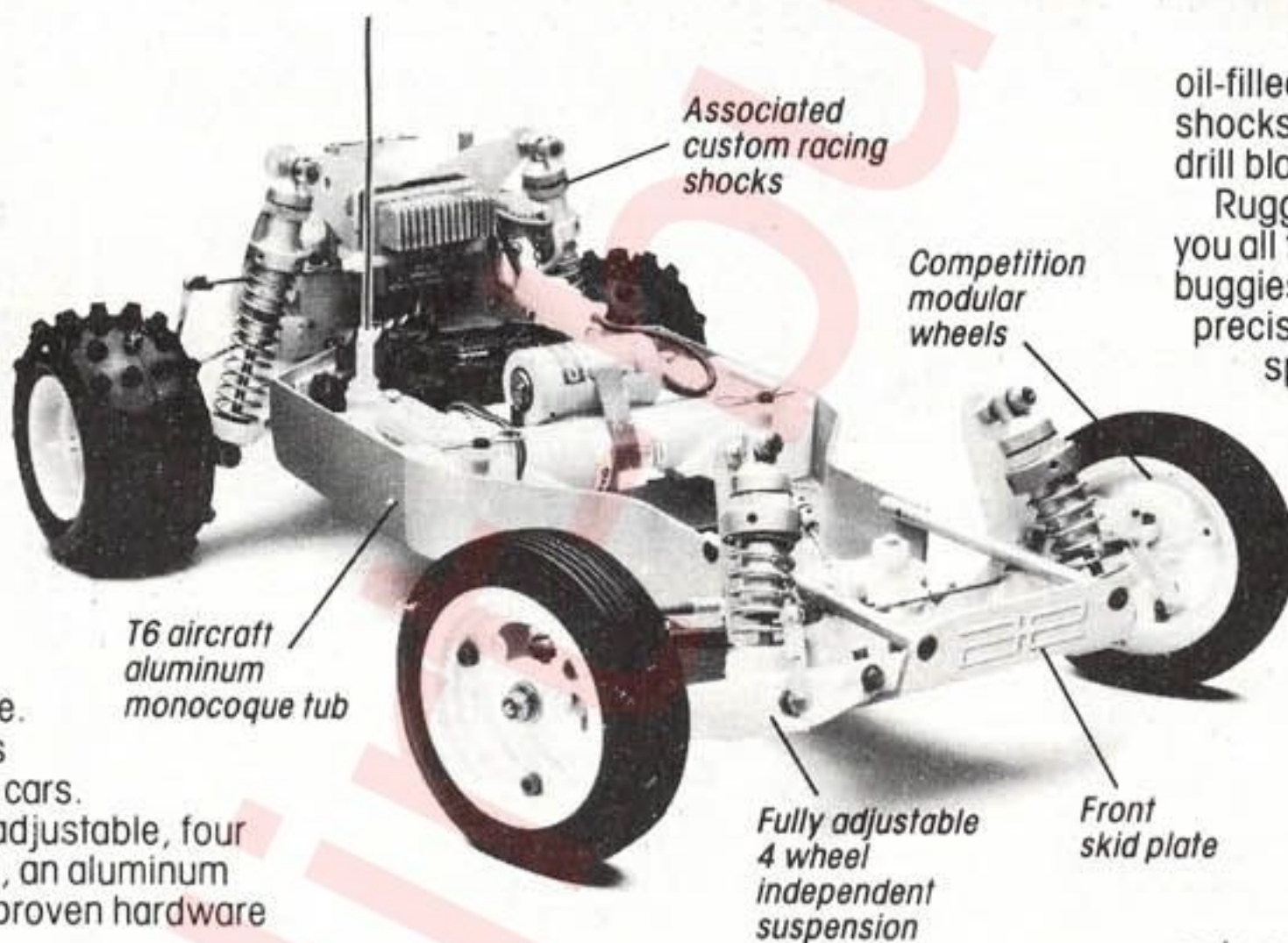
Our RC10 turned back the foreign car invasion with the same racecar technology that has kept Team Associated on top of the RC car racing world for over 15 years.

A RACE CAR, NOT A TOY.

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But Team Associated designs and engineers only model RACE cars.

The new RC10 features fully adjustable, four wheel independent suspension, an aluminum alloy monocoque tub and race-proven hardware throughout.



oil-filled racing shocks. These custom shocks use machined alloy cylinders and drill blank shafts for silky smooth action.

Rugged, yet light, the suspension gives you all the adjustability of full size, full race buggies. The A-arm/Ball joint design allows precise camber, caster, ride height and spring rate tuning. Even anti-roll bars and a VariLok dif are included.

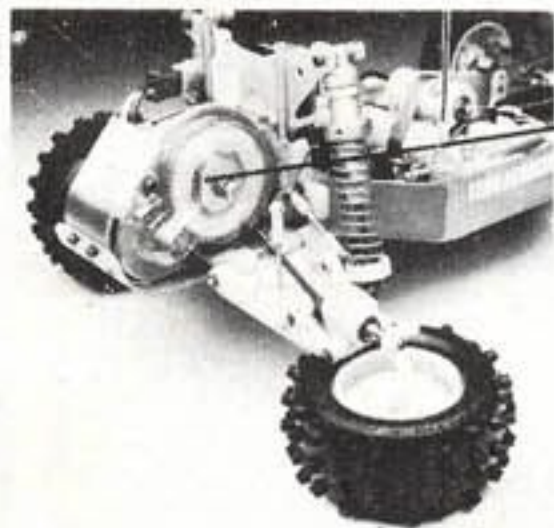
Exceptional ground clearance and low center of gravity also contribute to the superb balance and performance of the RC10 over all types of terrain.

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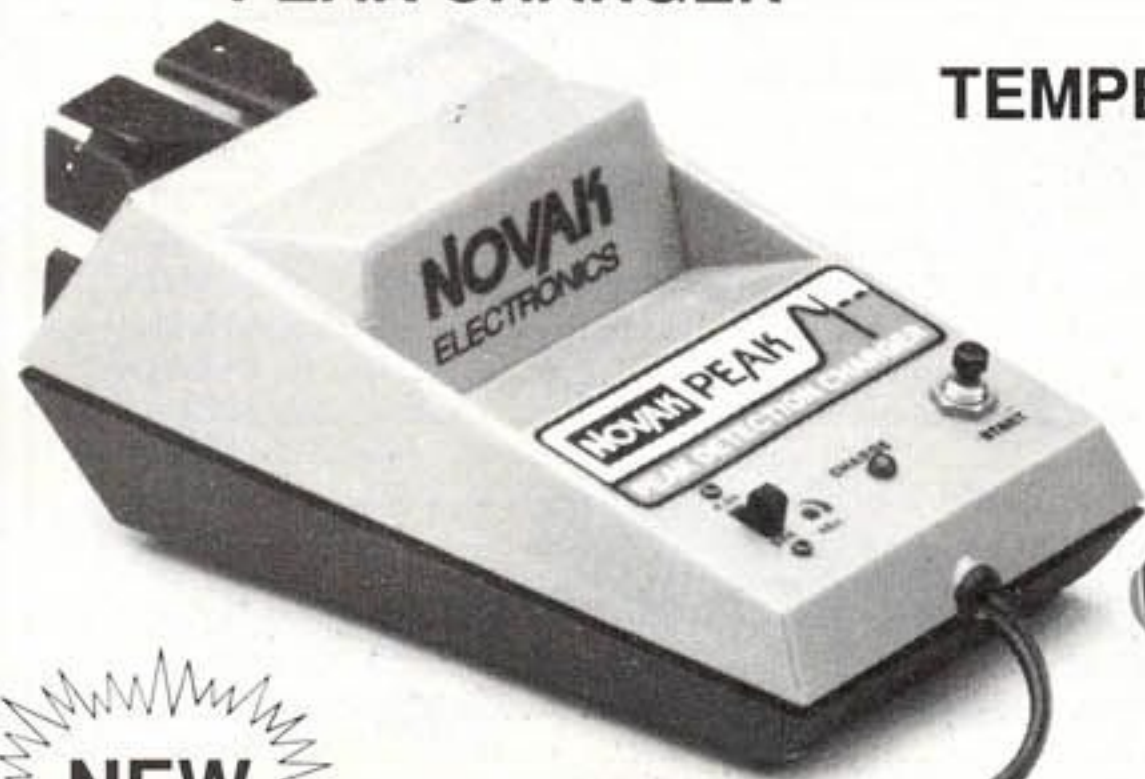
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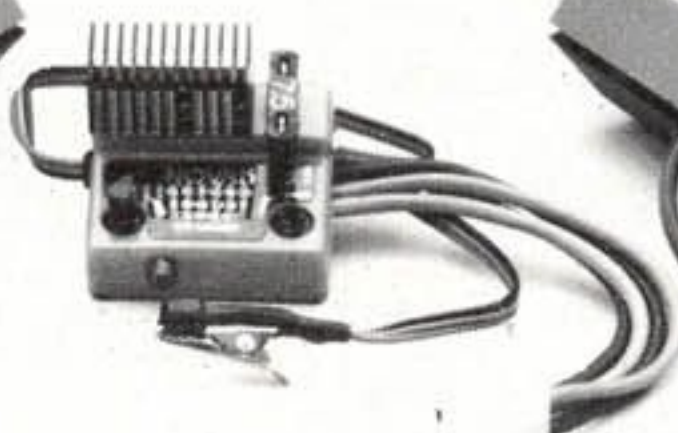
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VOLTAGE INPUT	4-10 CELLS	4-10 CELLS	4-10 CELLS
POWER CONSUMPTION	20mA at 7.2V	20mA at 7.2V	20mA at 7.2V
PLUGS INSTALLED	FUT.G, FUT.J, KO, AIRTR.	FUT.G, FUT.J, KO, AIRTR.	FUT.G, FUT.J, KO, AIRTR.

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Tamiya Midnight Pumpkin	£76.00
Tamiya Thunder Shot 4WD	£89.00
Tamiya Super Sabre 4WD	£89.00
Tamiya Clod Buster 4WD	£169.00
Tamiya Toyota Celica 4WD 1/12	£142.95
Tamiya Vanessa's Lunch Box	£65.95
Tamiya Monster Beetle	£86.95
Tamiya Porsche 959, 4WD 1/12th	£135.95
Tamiya Blackfoot	£83.00
Tamiya Big Wig 4WD	£147.95
Tamiya Falcon	£63.95
Tamiya Boomerang 4WD	£89.00
Tamiya Hotshot II 4WD	£107.95
Tamiya Grasshopper W380 motor	£44.95
Tamiya Hornet	£55.00
Marui Shogun 4WD	£90.00
Marui Coors Thunderbird 4WD	£103.95
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Marui Samurai 4WD	£94.95
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Kyosho Turbo Rocky 4WD (no motor)	£132.95
Kyosho Salute 4WD (no motor)	£177.95
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Kyosho Ultima	£102.95
Mardave Meteor	£53.95
MRX Competition 4x4 4WD, (no motor or speed controller)	£178.00
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ELECTRIC CARS

Tamiya Williams Honda FW11B F.1.	£73.00
Tamiya Lotus Honda 99T F.1.	£73.00

Deal Price with the following Radio Equipment

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HI-TEC CHALLENGER 2ch radio with servo reverse, BEC or STD, 7.2 volt Tamiya/Marui racing rechargeable drive battery and either mains slow charger or 12 volt fast charge leads (please state which charger you require).

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DEAL F JUST ADD £60.00
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DEAL A JUST ADD £60.00

DEAL FE JUST ADD £89.00
FUTABA Attack 2ch radio with 1 x S148 servo and 1 x MC112B FET electronic speed controller, Tamiya/Marui 7.2 volt racing rechargeable drive battery and either mains slow charger or fast charge leads (Please state which charger you require).

DEAL FE JUST ADD £89.00

DEAL T JUST ADD £104.00
TAMIYA CPR receiver/FET electronic speed controller with servo and transmitter, Tamiya/Marui 7.2 volt racing rechargeable drive battery and either mains slow charger or fast charge leads (Please state which charger you require).

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Tamiya Clod Buster	£28.35
Tamiya Porsche 959 & Toyota Celica	£27.75
Tamiya Hotshot II & Hotshot	£19.99
Tamiya Midnight Pumpkin, Lunch Box, Big Wig, Hornet & Grasshopper	£10.41
Tamiya Striker & Falcon	£12.39
Tamiya Boomerang & Super Sabre	£23.99
Tamiya Fox	£3.96
Tamiya Monster Beetle, Blackfoot & Wild One	£10.92
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Kyosho Optima	£14.06
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Ballraces

INCH	METRIC
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1/8" I.D. x 5/16" O.D. F&S	3mm I.D. x 6mm O.D. F&S
3/16" I.D. x 5/16" I.D. S	3mm I.D. x 8mm O.D. S
3/16" I.D. x 5/16" O.D. F&S	4mm I.D. x 8mm O.D. S
1/4" I.D. x 3/8" O.D. S	4mm I.D. x 8mm O.D. F&S
1/4" I.D. x 3/8" O.D. F&S	5mm I.D. x 8mm O.D. S
1/4" I.D. x 1/2" O.D. F&S	5mm I.D. x 10mm O.D. S
	5mm I.D. x 11mm O.D. S
	6mm I.D. x 10mm O.D. S
	6mm I.D. x 10mm O.D. F&S
	6mm I.D. x 12mm O.D. S
	6mm I.D. x 13mm O.D. S
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AR-227F Technidrive	£15.99
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FPT-2LGX	£55.00
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All you have to do is answer five simple questions about the new Super Dog Fighter, the answers to which are all in Jim Crabb's review (see August Radio Race Car). So if you haven't read the review or you have forgotten what Jim said, now's the time to read the review again.

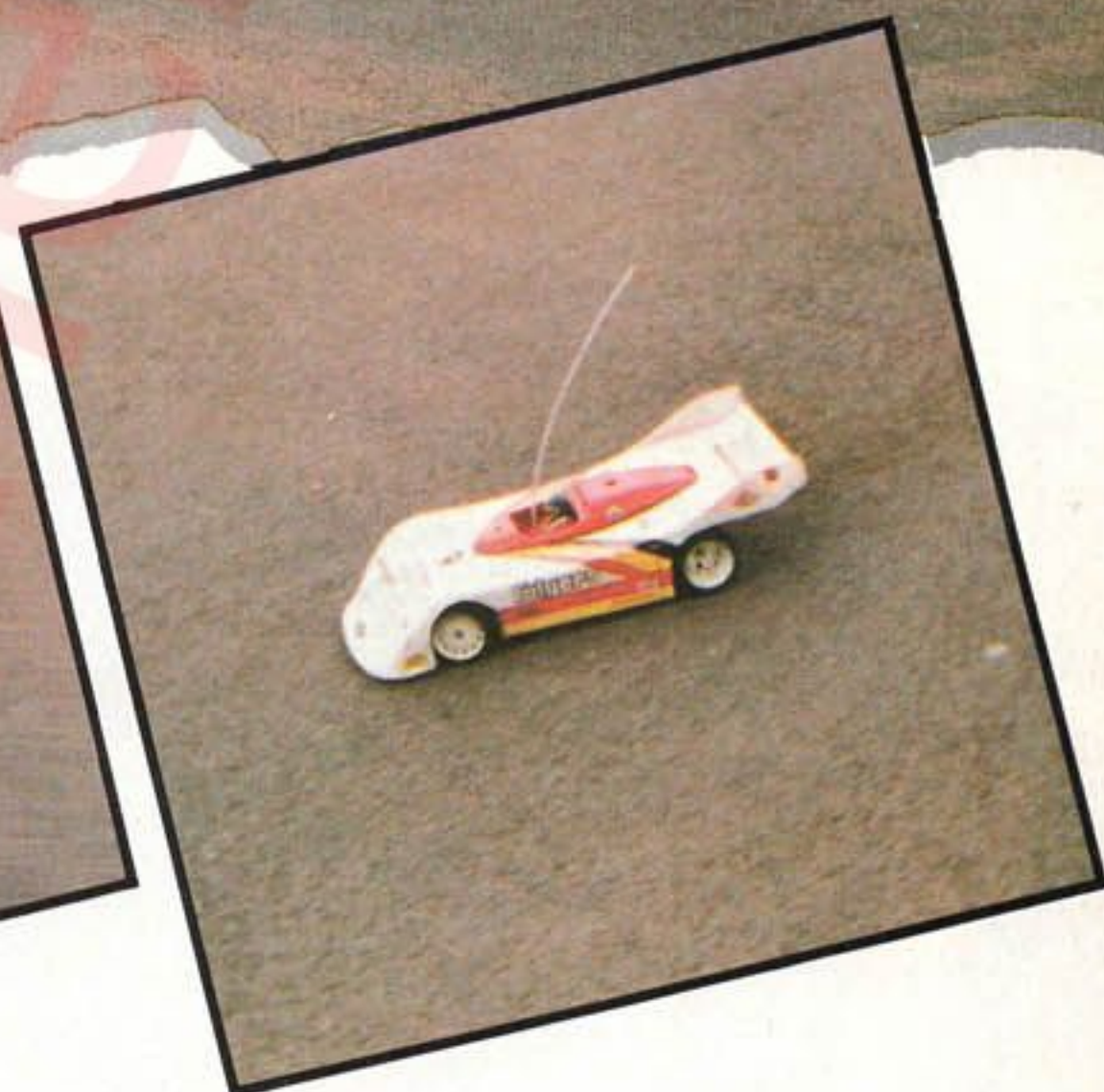
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1. **What type of drive belts are used on the Yokomo?**
 2. **What are items such as front and rear bulkheads and the motor mount made from?**
 3. **How are the batteries arranged in the Yokomo?**
 4. **What type of differentials are used in the Yokomo?**
 5. **What type of tyres are supplied as standard in the kit?**

When you have completed the questions send them, or a photocopy if you do not wish to spoil your magazine, to: RADIO RACE CAR YOKOMO COMPETITION, MASEFIELD HOUSE, WELLS ROAD, MALVERN, WORCESTERSHIRE WR14 1SY.

Competition closes September 19 and the winner will be announced in the November issue of Radio Race Car International. This competition is not open to members of Traplet Publications or their families, the winner will be the first correct entry drawn from the sack.

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Radio Race Car visits
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No words could accurately describe the exhilaration, the sheer speed, the nerve shredding five minutes of racing, the spectacle that was Lilford Park. July 3rd, 1988 will long be remembered as the date that gave birth to one tenth circuit racing in the UK, a sport so fast that unless you've seen it you wouldn't believe it.

Drivers from all over the country turned up despite overcast skies and the very real threat of rain. Practice began and at once it was obvious that there were two drivers that really meant business Pete Winton driving his Schumacher TRC and Phil

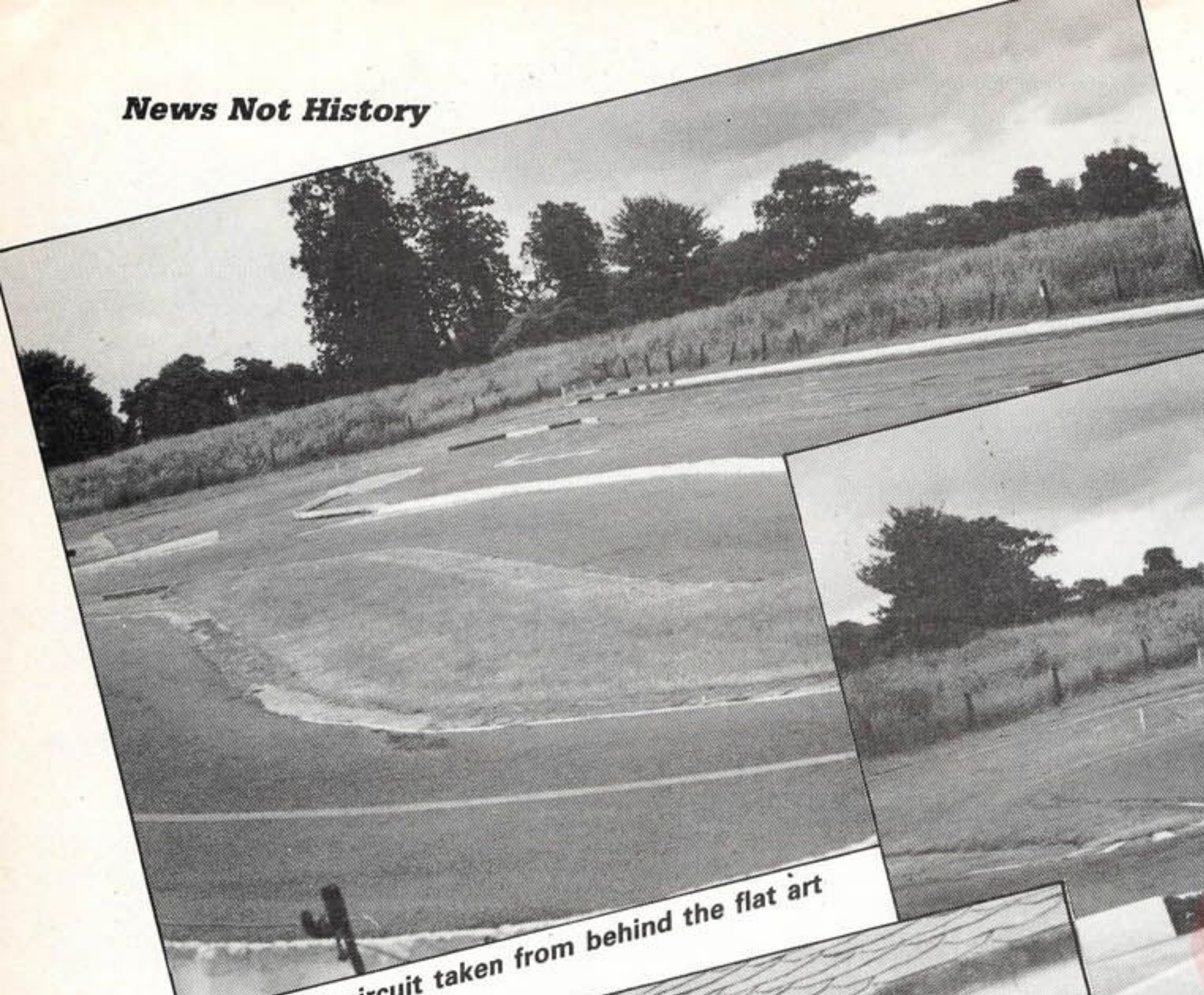
Booth with his Composite Craft Eliminator, both cars were doing their impression of carefully guided missiles.

Back in the real world and the rest of us were coming to grips with the peculiarities that an ultralight chassis coupled to a 21 turn double has, namely that of trying to disappear up it's own endbell. There were times that people were laughing at the antics of both themselves and others whilst on the rostrum and that was so good to see, how many of us can remember when we last laughed while we raced?

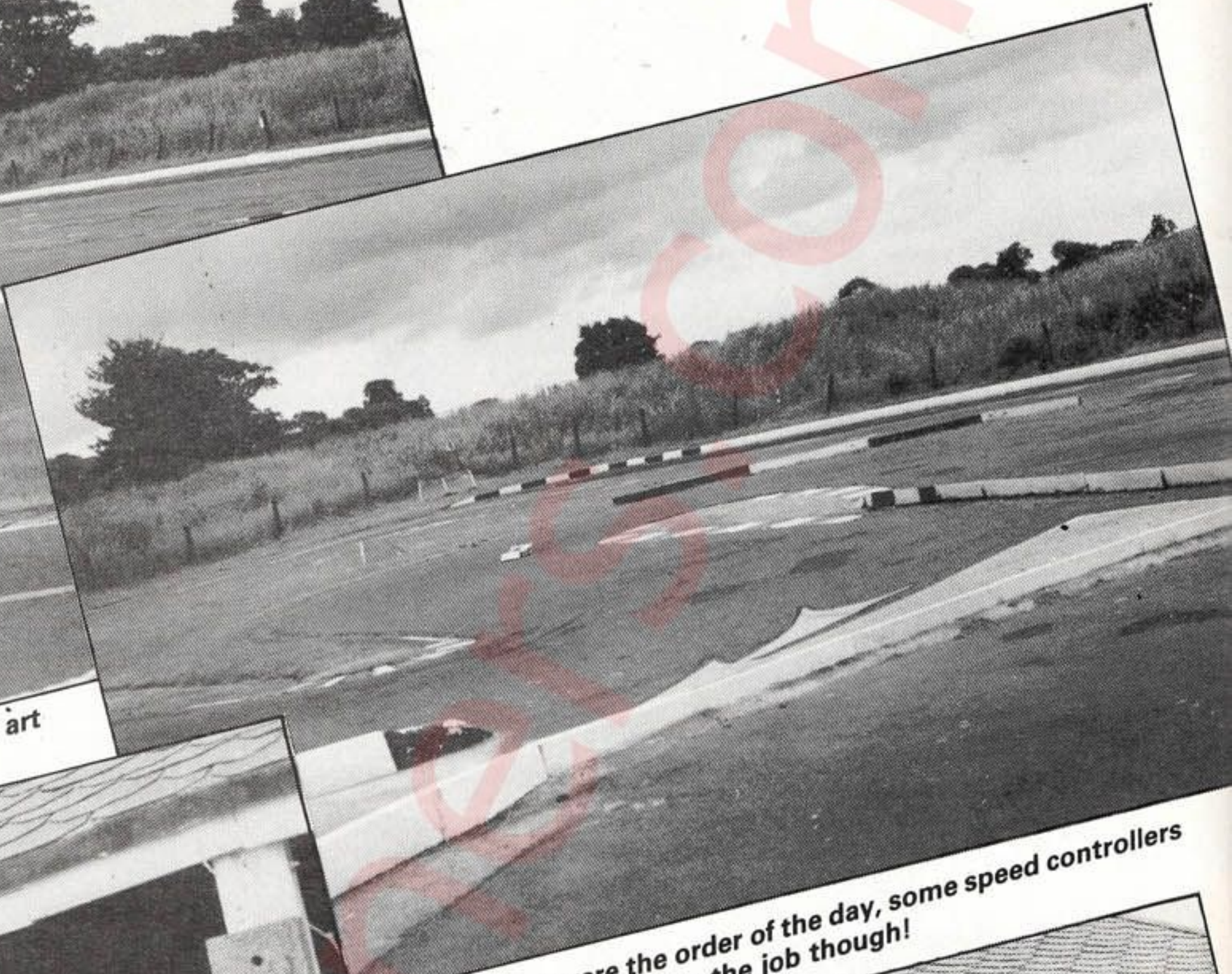
Once the cars high power to weight ratio

Chris Evans managed to win the concourse event with this wonderful paint job on a Sierra shell.

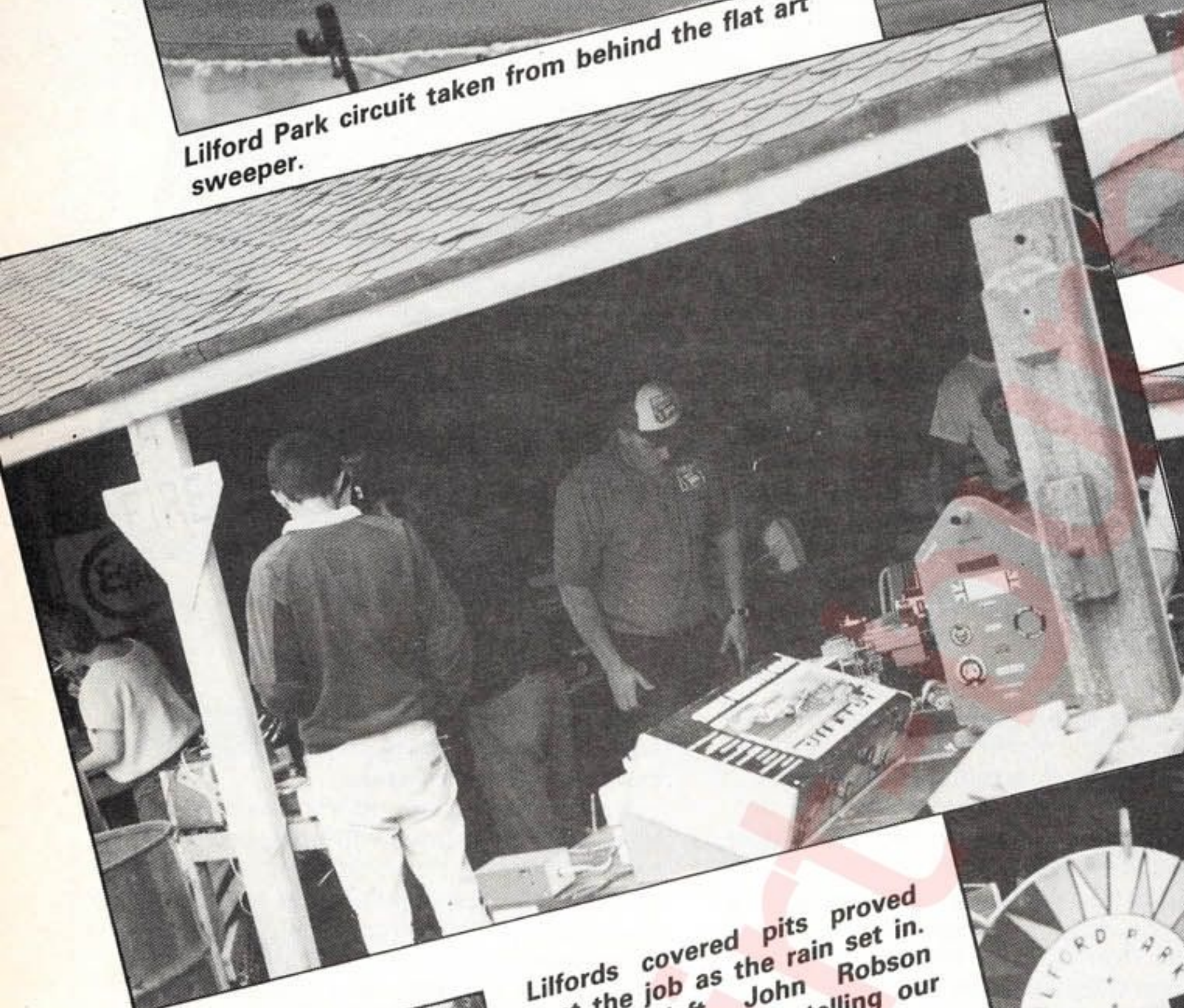




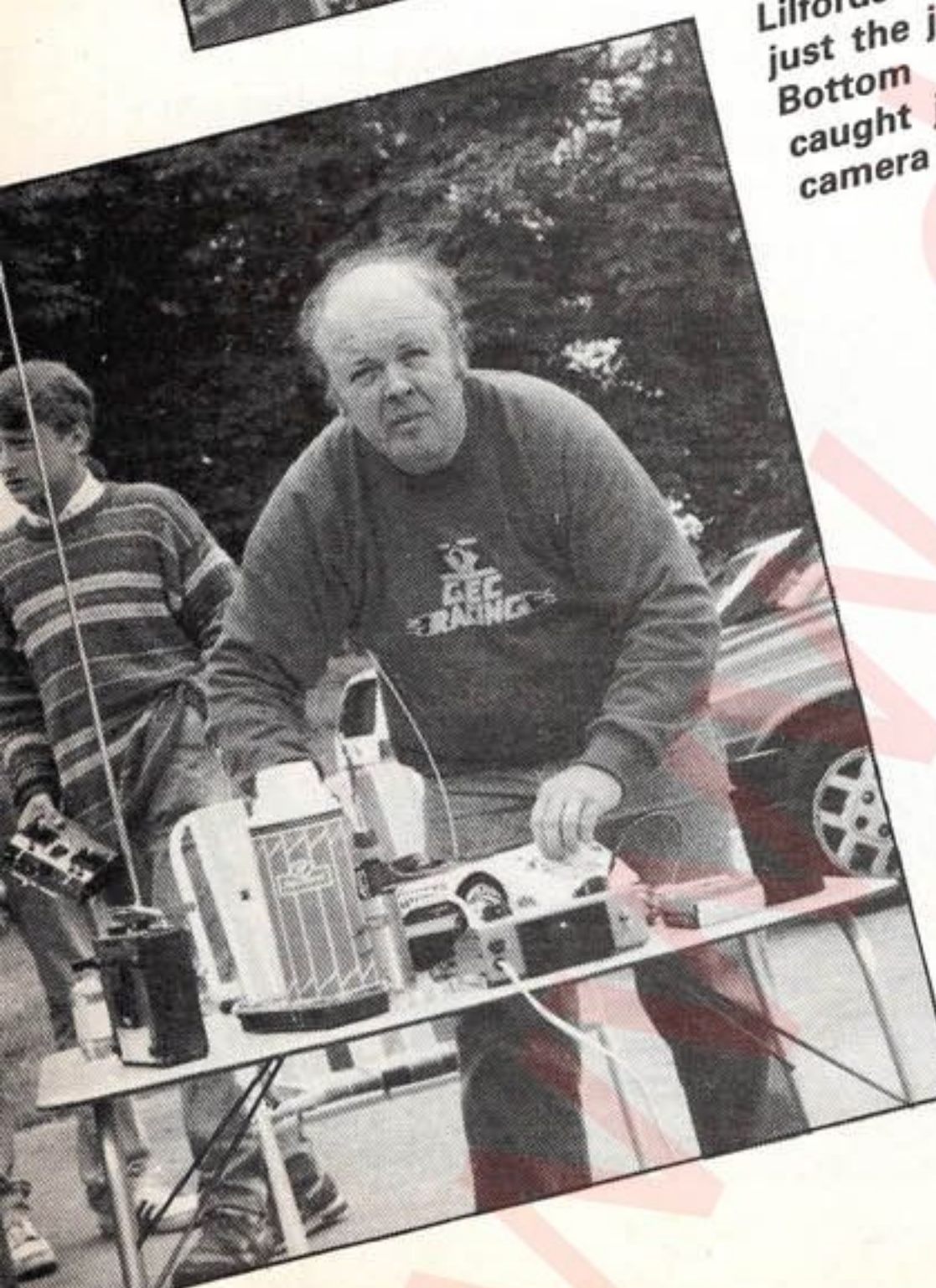
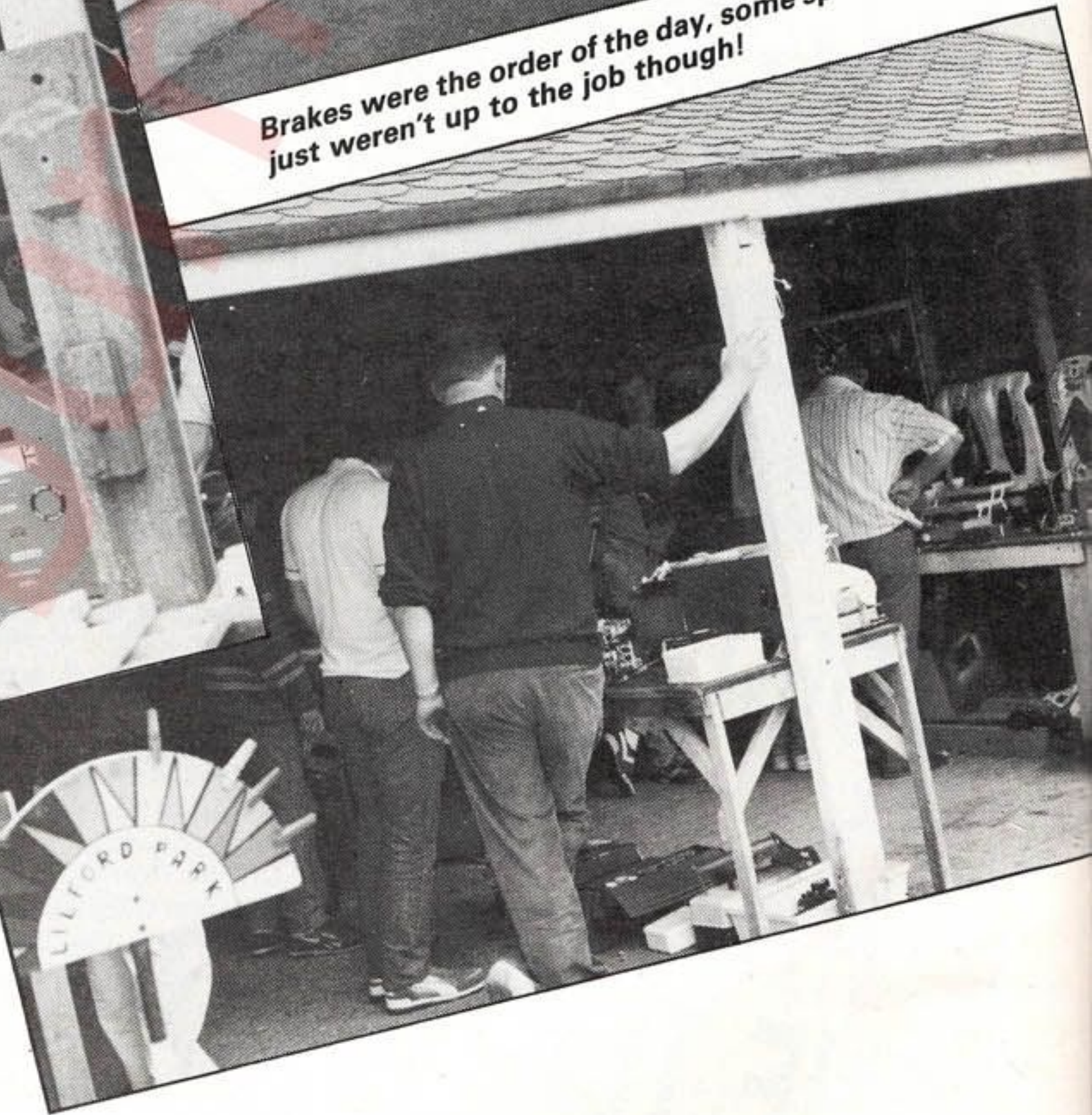
Lilford Park circuit taken from behind the flat art sweeper.



Brakes were the order of the day, some speed controllers just weren't up to the job though!



Lilfords covered pits proved just the job as the rain set in. Bottom left, John Robson caught just before telling our camera man to go away.



was accounted for and grown accustomed to then you can get on with the job in hand and start to drive the circuit, as someone who should have known better found out, the choice of bodyshell is vital, saloon car shells are great for oval racing but they fight you all the way along fast straights and around some corners, there is only one bodyshell for circuit racing and that is Le Mans style.

The day was becoming even more enjoyable as each heat passed and everyone was becoming more familiar with their car, unfortunately someone had forgotten to tell the chap in charge of the weather that we needed a whole fine day, by two o'clock it was raining and it didn't stop, the meeting was decided on heat times to the agreement of all.

Summary

Without a shadow of a doubt this branch of one tenth racing is going to be big, it provides fast, clean enjoyable racing, set against an aura of realism that allows you to say look at that Porsche or Sierra go. However don't just take my word try it yo'll like it too!

Lilford Park Results Top Six

Pos	Name	Laps	Time
1	Phil Booth	15	17.91
2	Pierre Winton	15	21.40
3	Dave Towell	14	1.98
4	Super Scratch	14	8.26
5	Rob Coleman	14	19.54
6	Alan Boothman	14	20.96

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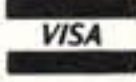
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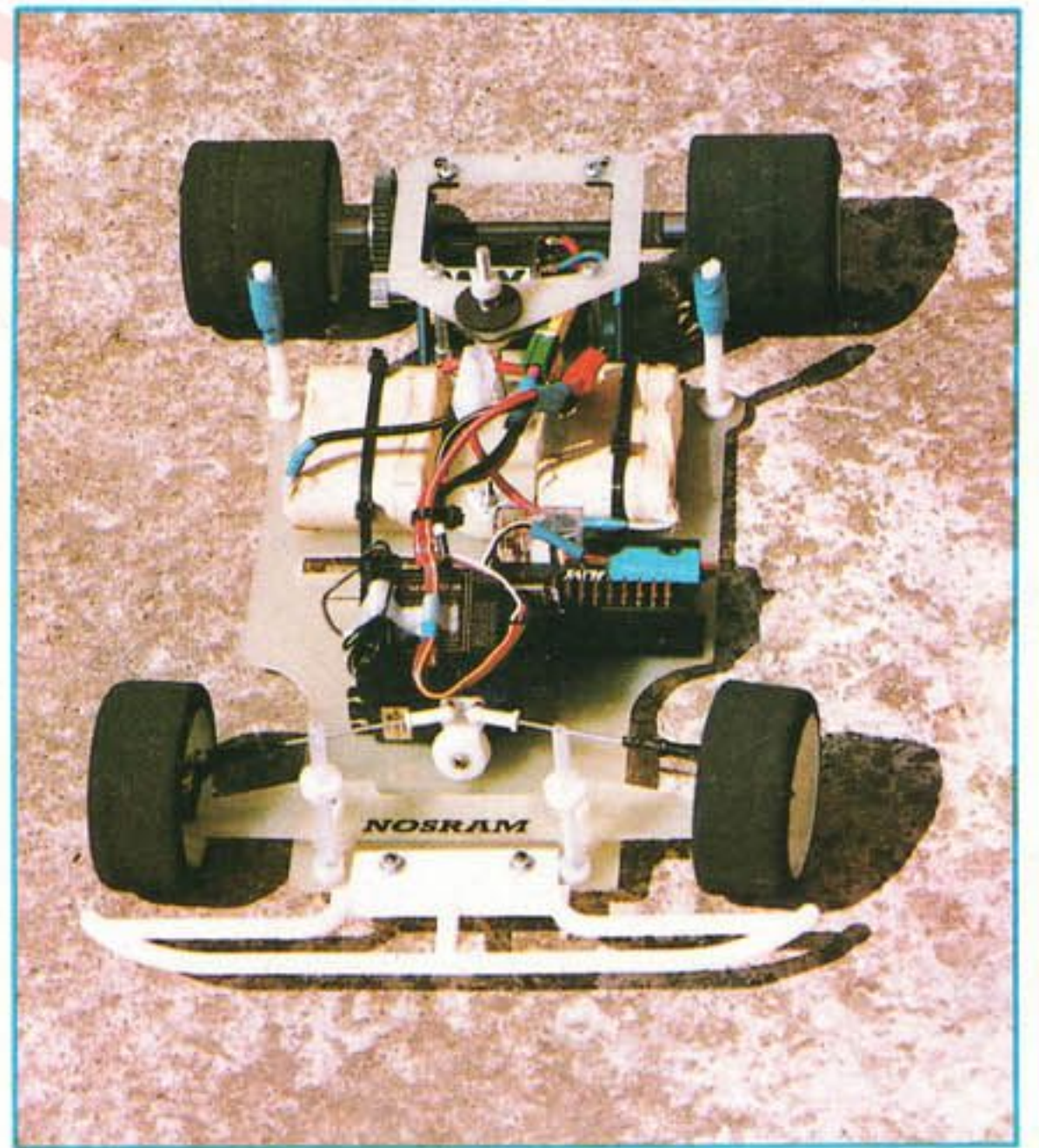
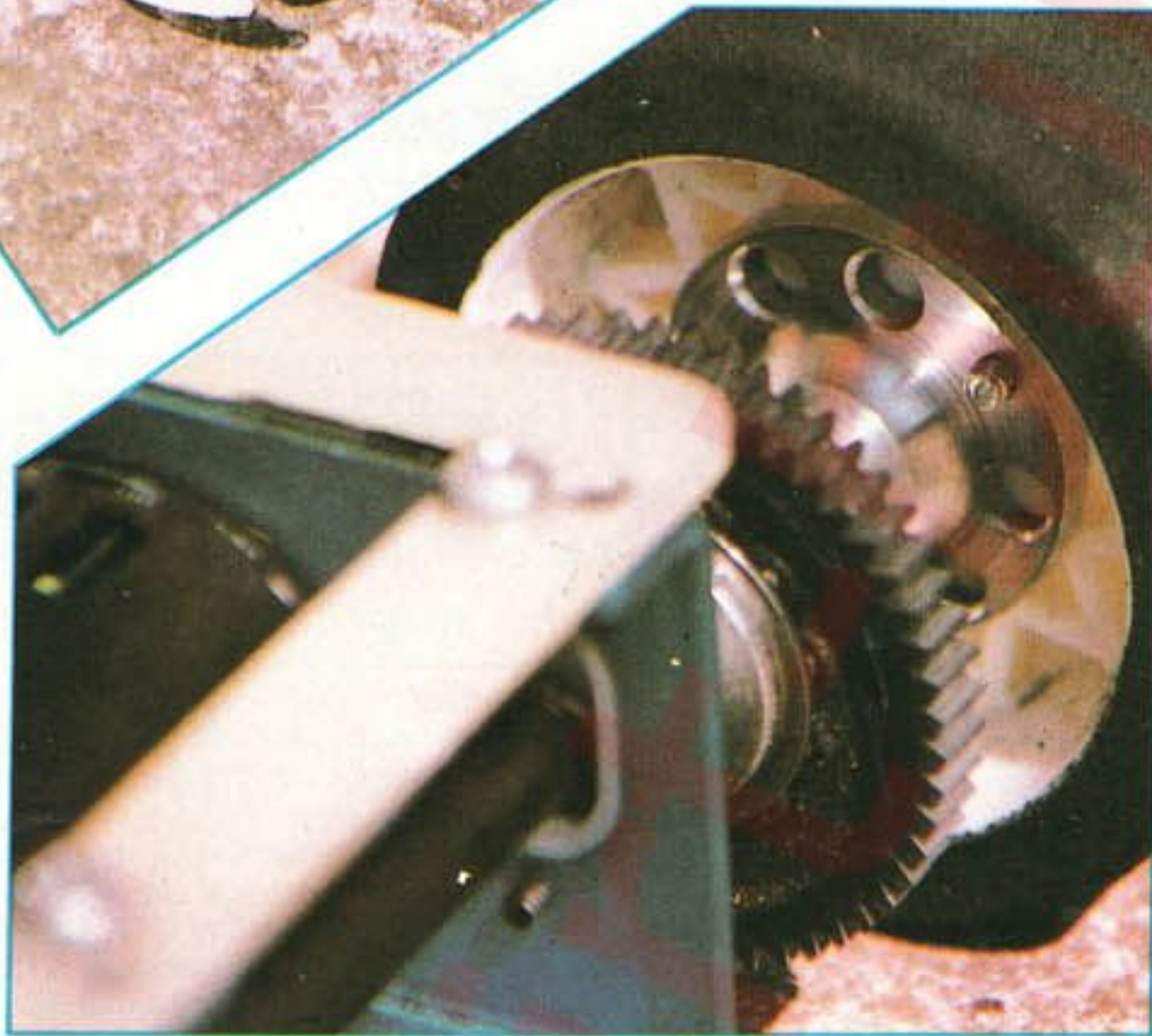
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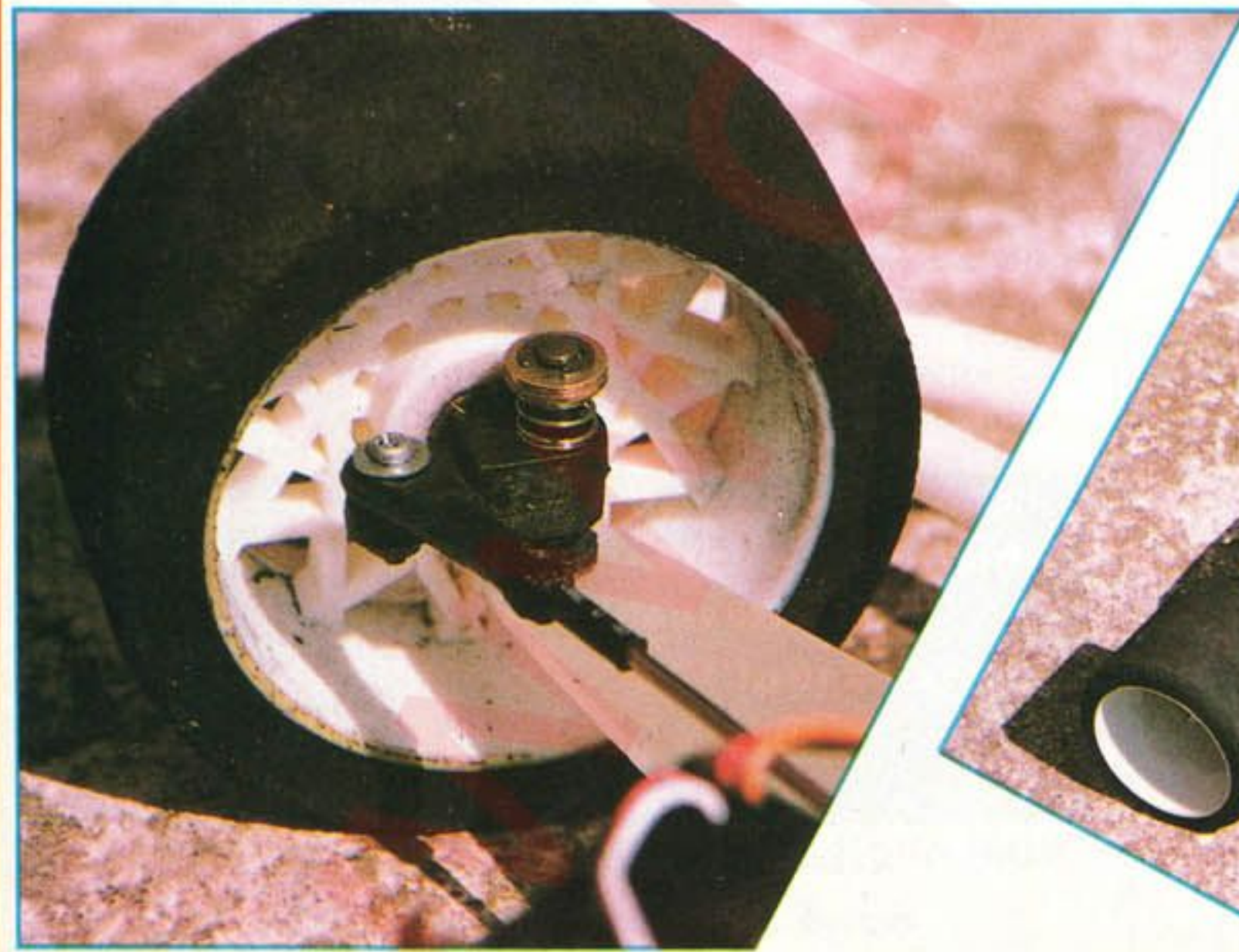
PRO 10



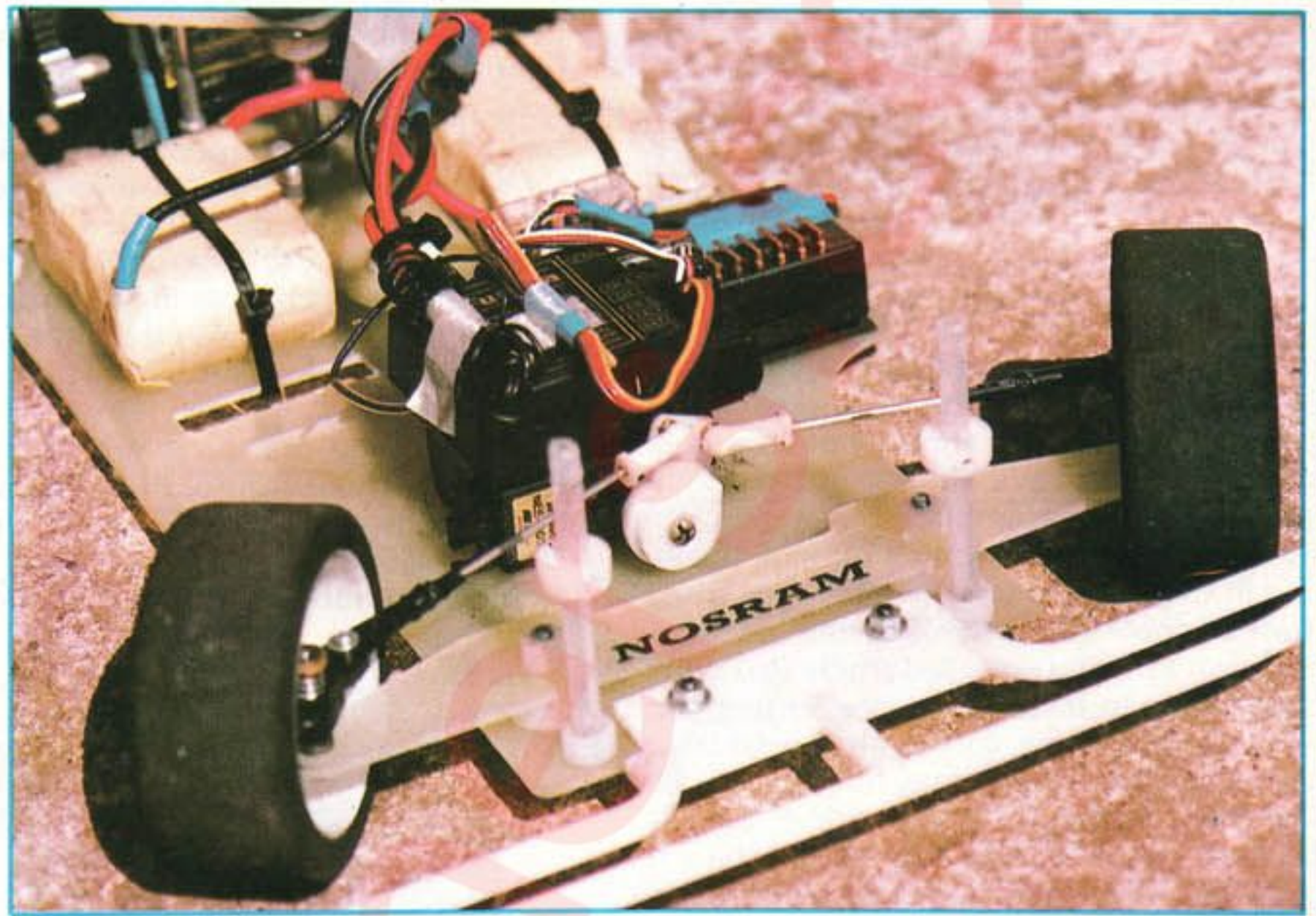
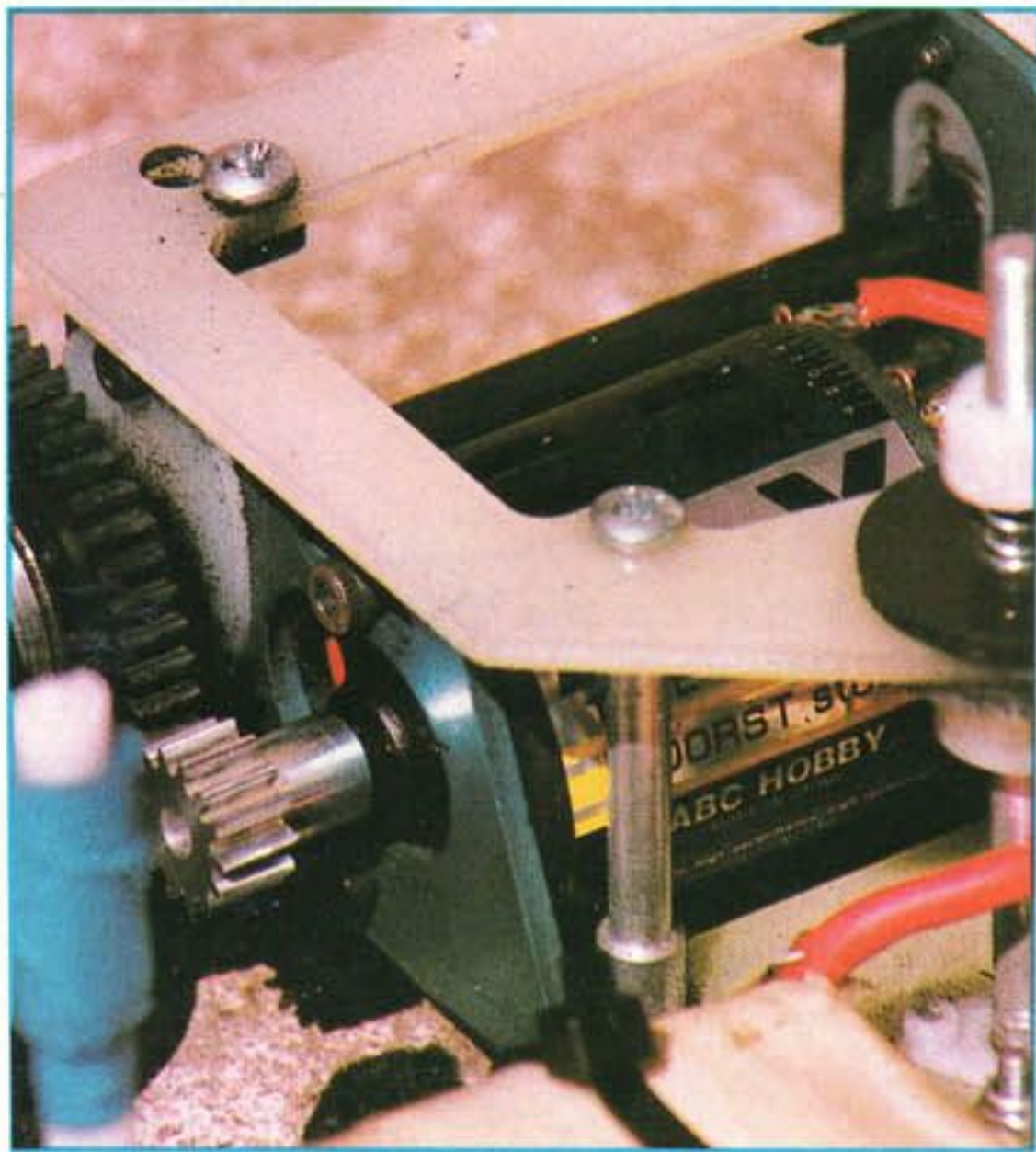
Right, despite initial worries no problems were encountered with the exposed spur gear.



Left, Kingpin/axle block assembly is very tough and will take all the punishment you can give. Below, rolling chassis is simple yet efficient.



ONE TENTH CIRCUIT CAR



All fibreglass construction makes the Pro 10 light and strong whilst aluminium motor pod acts as a tough protector for the axle, diff and motor whilst doubling as a heatsink. Front beam axle is simple and effective.

Radio Race Car takes a look at Parmas new 1/10 circuit racer.

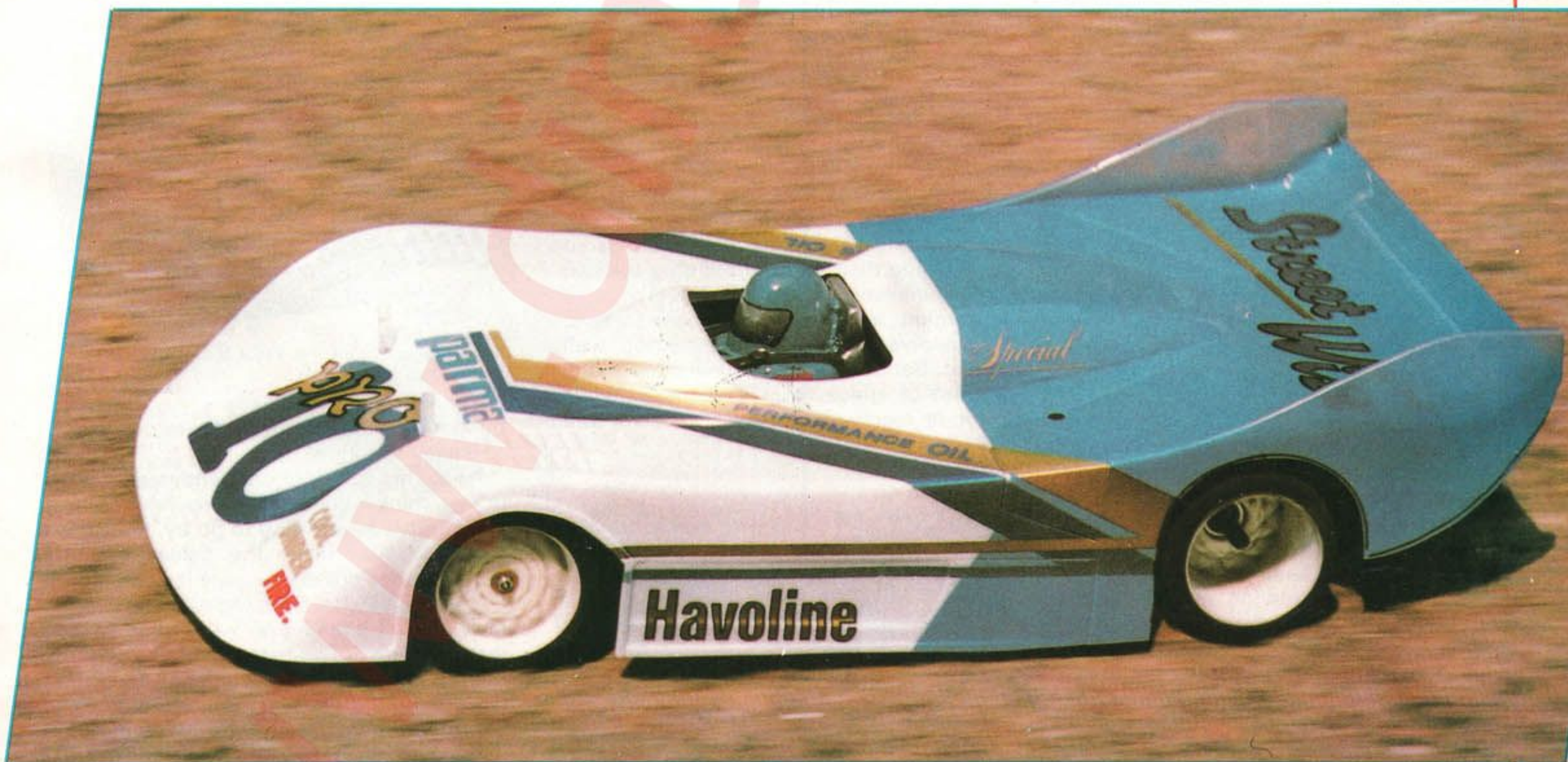
Late last year and early this, we in the UK saw the humble beginnings of what must surely become the biggest thing since the wheel. That thing is one tenth circuit racing. As regular readers will remember the Birmingham buggy Club held a series of Tarmac races culminating in the Tarmac National event which we reported. Several other clubs are also racing in this style, little did Birmingham know that they may well have started something big!

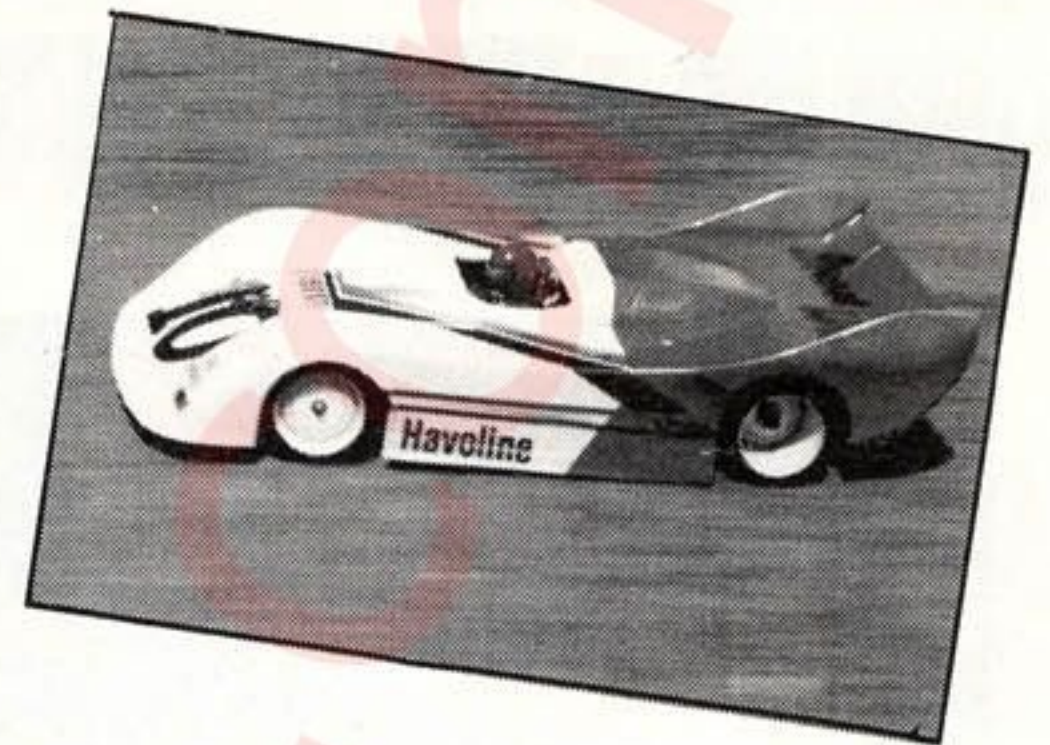
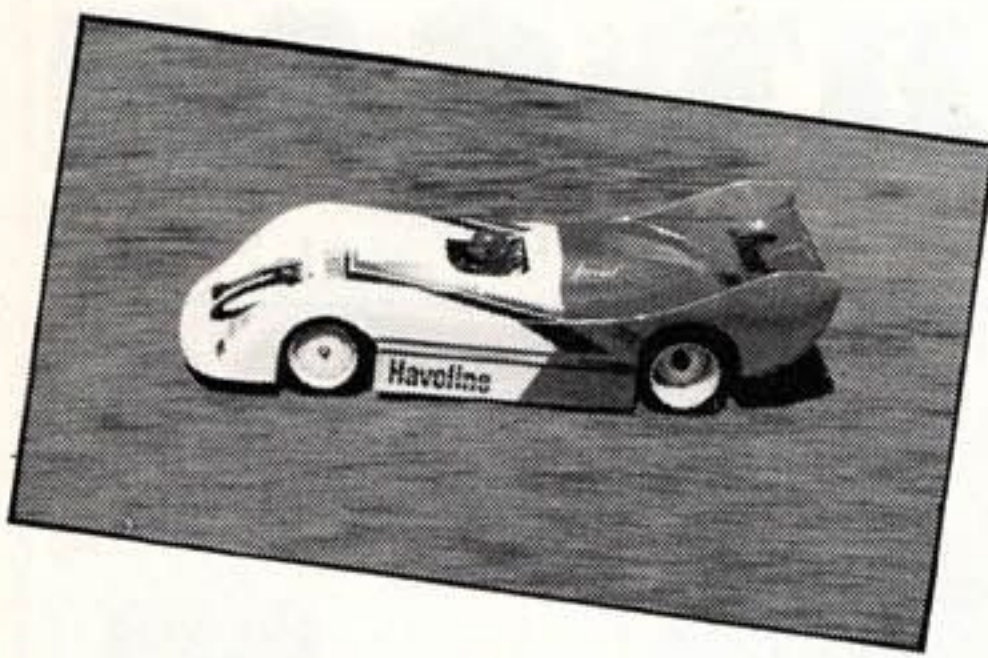
The USA were actively involved in circuit racing one tenth cars and have been for some time, so it was only a matter of time before some bright spark added two and two together and came up with the idea of importing these cars into the UK and allowing the class to grow. The question you must be asking is why, surely we have our own cars? Well we don't you know, a one tenth circuit car and a one tenth off road car are about as different as you could hope to get, even the fastest and surest footed of the converted off road cars wouldn't stand a snowballs chance of keeping up with the new circuit cars. The reasons for that sweeping statement are obvious at a glance, gone is the engineering elegance of

the off road car replaced by harsh, functional reality, everything that can be removed or lightened has been to the point where the cars take on that half starved look of a thoroughbred race horse, in fact just like the thoroughbred, circuit cars are designed for just one thing and that is speed.

Boxes, Bits and Ball Differentials!

The Pro Panther 10 arrives in a very neat, nicely decorated box which would certainly not be missed by anyone paying a visit to his or her local hobby shop, lift the lid however and the packaging would put off even the least discerning amongst us, don't let





it. Underneath the vast quantities of tissue paper lies a beast waiting to be assembled.

The assembly time should not take long, as most of you have already spotted their isn't much to assemble, in fact one observer likened their car to a big one twelfth and in truth that is exactly what it is. Don't then be fooled into thinking that because there isn't that much to assemble you don't really have to take much care, in fact you need to take more care with the Panther than any other car you may have ever built. The main reason for this is speed. Simply because you are travelling so fast the car must be set up, adjusted and running perfectly, results if the car were otherwise would be, note the choice of words, not might or maybe but would be disastrous.

Worth noting at this stage is the fact that the Pro 10 comes complete with mechanical speed controller, motor and six nicads, making it about the most complete car there is!

The last point of brief note before we go into detail is the rear axle, differential set up. This may at first glance look a little confusing to the beginner, however simply follow the assembly and adjustment instructions and the car runs perfectly.

take a few seconds to laugh at that last statement).

Rear pod next, again no problems here as long as the instructions are followed. When you join the pod to the chassis ensure that there is free movement around both pivot balls otherwise the car will not handle as it should.

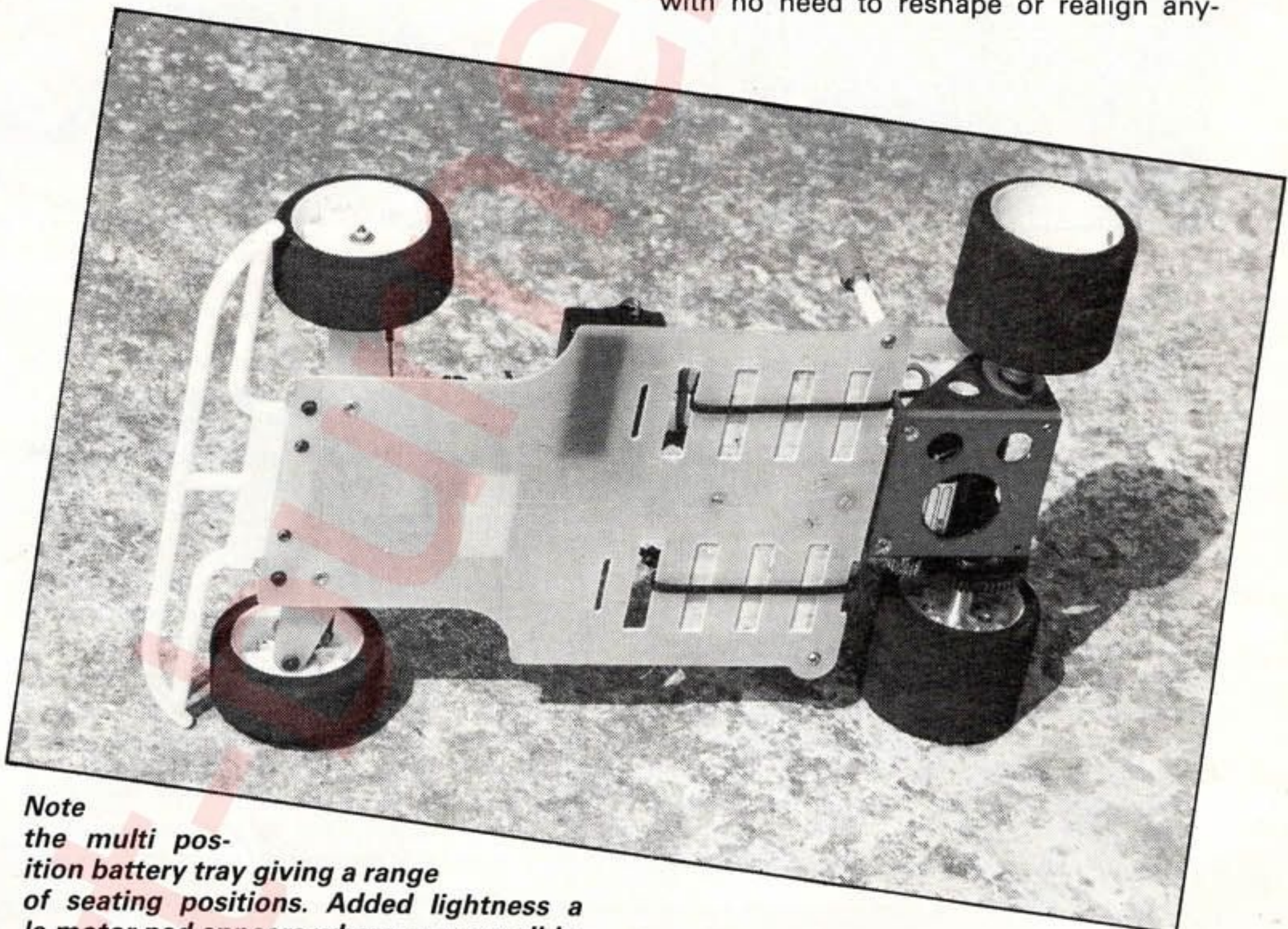
As previously mentioned the axle/diff is ball type but should pose no problems as long as the instructions are followed, one tip which should be followed is that you pre-thread the diff lock nut prior to final assembly, this prevents the diff boss being accidentally pulled away from the axle.

Wheels And Tyres

Both front and rear tyres are of the foam type for increased grip, the tyres are pre-glued to the wheels to save you time and a messy job. Wheels and tyres are simply fixed to the hubs using cap head bolts.

What Do We Think

Well the car went together very well with no problem areas at all, this was due to two major factors. One, all the parts fitted well with no need to reshape or realign any-



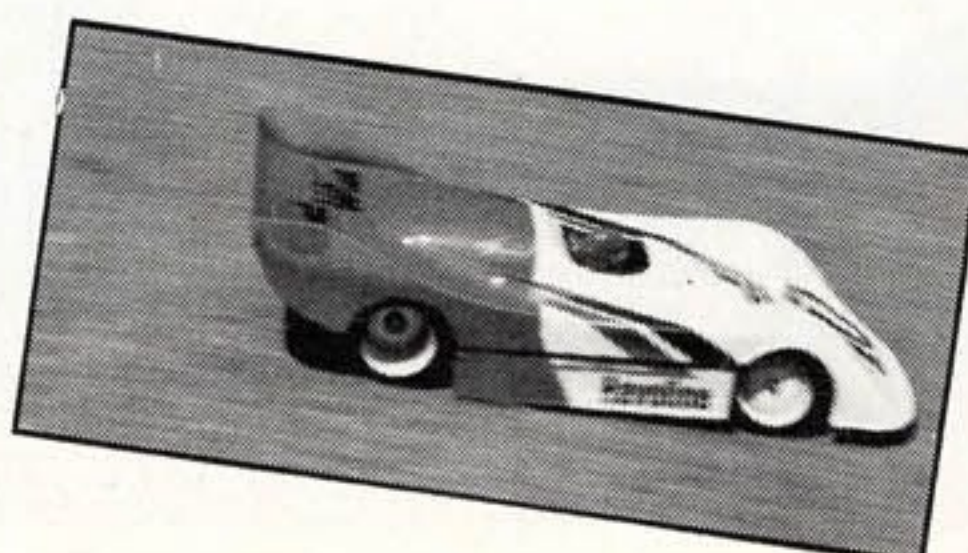
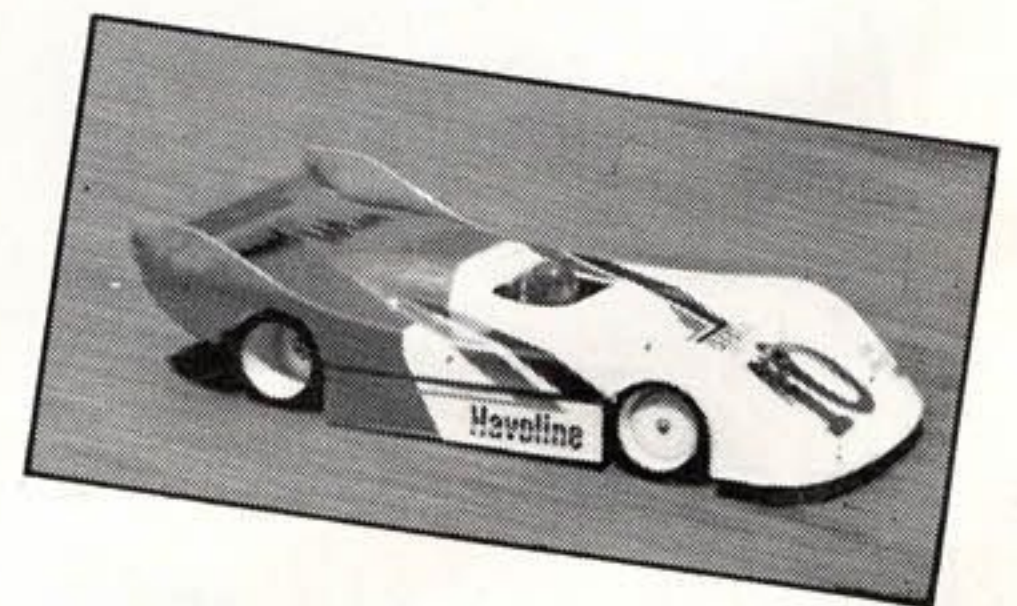
Note the multi position battery tray giving a range of seating positions. Added lightness a la motor pad appears where ever possible.

Radio Gear

It seems that present design parameters for one tenth off road body shells are, make them as tight as you can, preferably so tight that you spend more time trying to get your latest 'loadsamoney micro radio gear' inside than you did building the car. Circuit cars have room for four sets of radio equipment, your hands, a whole tool kit, your twelve volt battery and the dog, well almost. Seriously you do have a luxurious amount of space to fit your servo, electronic or mechanical speedo, receiver and batteries.

Assembly

The overall assembly time is quite short and should take no longer than a wet Sunday, including paint and stickers, Parma have a range of stickers that suit these circuit cars just fine. The front axle is assembled first, kingpins and steering posts being added to the straightforward beam axle. Care must be taken when mounting the axle to the car, especially when adding the castor wedges, first ensure that both wedges are of the same type, one two or three degrees of castor can be added depending on the handling characteristics you are looking for. Parma say in the instruction booklet that two degrees gives comfortable straight line and cornering characteristics without too much under or oversteer, in other words, about as neutral as it is possible for one of these cars to be (those who have first hand experience can



thing. Two, the instructions are first class and easy to follow.

As for the future of one tenth circuit racing we think it will be very big if the Parma Pro Panther is anything to go by, the car is very fast even using the mildest motor. Running the Panther at speed is not too difficult once you get the hang of it however it is a new skill and one which has to be learned, most of us mere mortals will find driving these beasts a challenge to begin with, so take it easy, enjoy your Pro Panther and most important go racing.

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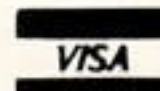
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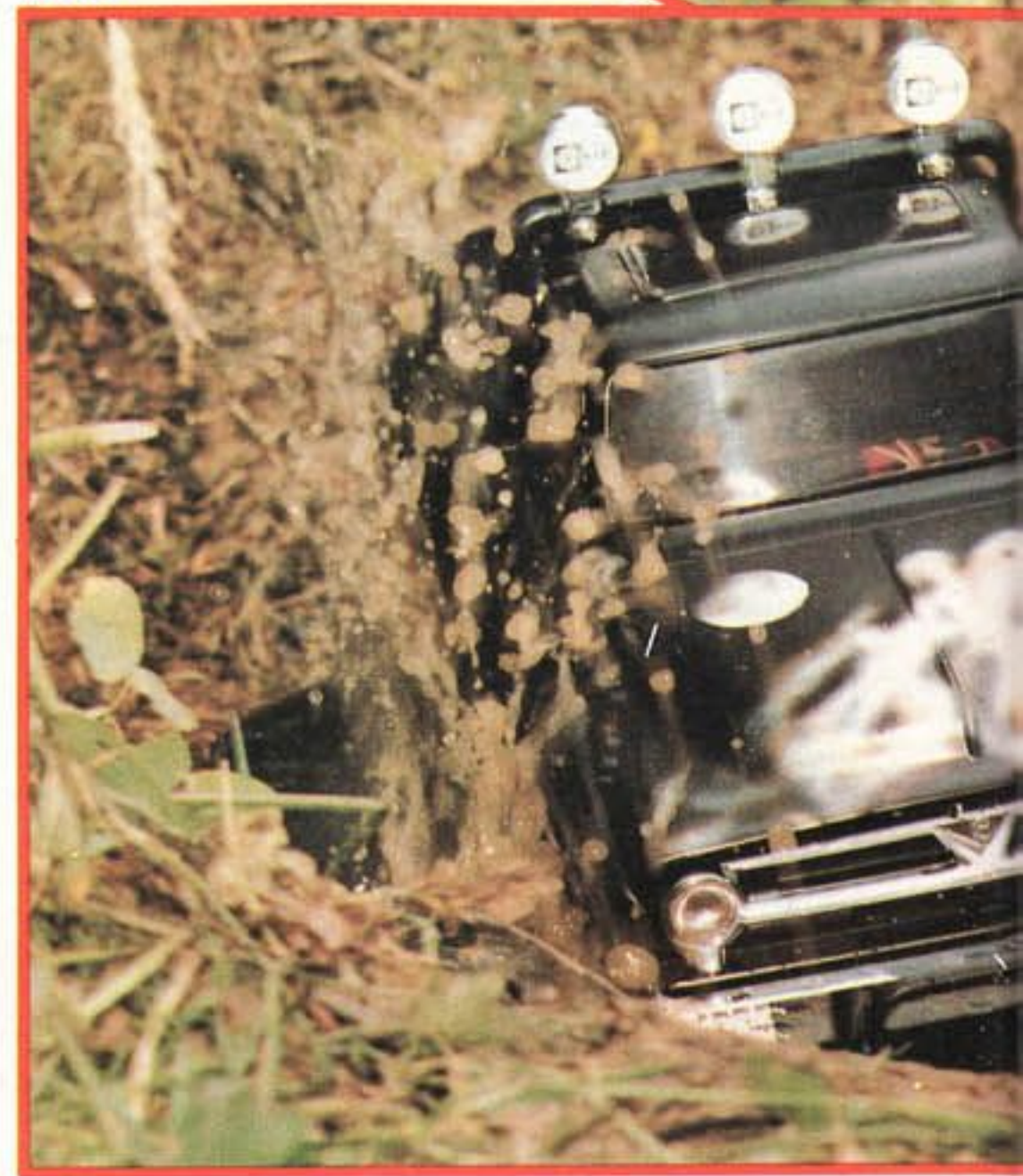
MIDNIGHT PUMPKIN

Jim Crabb takes a look at Tamiyas Midnight Pumpkin and has a musical trip down memory lane.

It was towards the end of the festive season that El Supremo of Radio Race Car, Dave Pearson, called me and asked me if I would like to review a Midnight Pumpkin. I naturally assumed that he had been partaking in a little amber falling over liquid and asked him if it was powered by



Now get out of that!



two pink mice and did it have cart wheels. Dave assured me he was quite serious and that although the vehicle had large wheels, they were made of rubber, they were not iron rimmed and also it was electrically powered. I was still not convinced and having recently been to see the pantomime Cinderella, I asked him if the track test had to be conducted at midnight with only one slipper on! By now my mind was running riot and in overdrive, I could visualise a large green bulbous car that would be quite outrageous, it would have a psychedelic paint job to match.

The car sounded fun and yet I had no idea what it was going to look like, already it had created some interest and discussion; little did I know more was to follow.

Could be in trouble now.



In it's element in the mud.

Hurry Up Mr. Postman

A large box finally arrived and I was very pleasantly surprised to find it contained the latest Tamiya fun car based on a 1952 Ford pick up truck. A look through the pop charts these days will reveal a nostalgic trip back to the 50's and 60's (even last Christmas' number 1 was an oldy and Chubby Checker was twisting, the first time around without the fat boys). So here was fun car from the time when Nat 'King' Cole was top with

superb and they proffer it beautifully, even though there are not the number of parts one has come to be used to on cars which are at the competition end of the market. The small number of parts is because the 'Pumpkin' is a basic simple car and it is 1/12 scale.

Tamiya have a world wide reputation for good value, up to date designed and well engineered kits which are easy to build and have a very good spares back up, the 'Pumpkin's' initial impression is that it can only help to enhance Tamiya's already proud standing in modelling circles.

Midnight What?

We have had a Midnight Cowboy and even a Burn Midnight Oil so why Pumpkin? It's a question I cannot answer, maybe it's because the pick up truck is very rounded or simply it was used a lot in the southern states where pumpkins are grown, could it be one of our readers knows the answer?

Flying Purple People Eater

So Tamiya have launched a fun car from the time when things were fun and the above record was tops by Sheb Wolley (anyone remember Rawhide), many of the parents of perspective buyers of this car would be too young to remember the real truck, even if any did in fact come to the UK, so it is nice to have something that is different yet based on fact. The car is not a 1/12 scale circuit racer but a 1/12 scale car crusher designed for pleasure and above all fun.

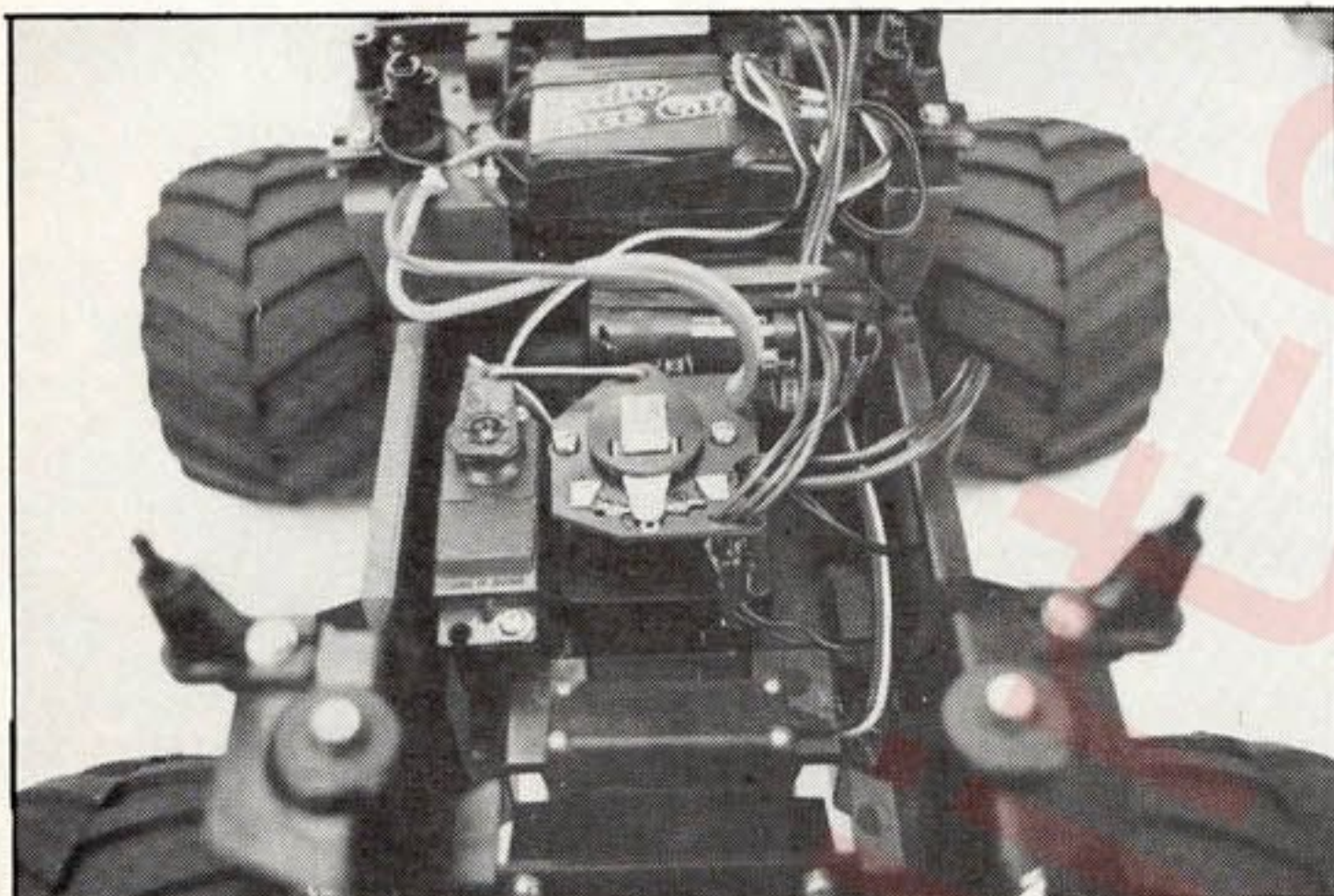


Emerging from the undergrowth.

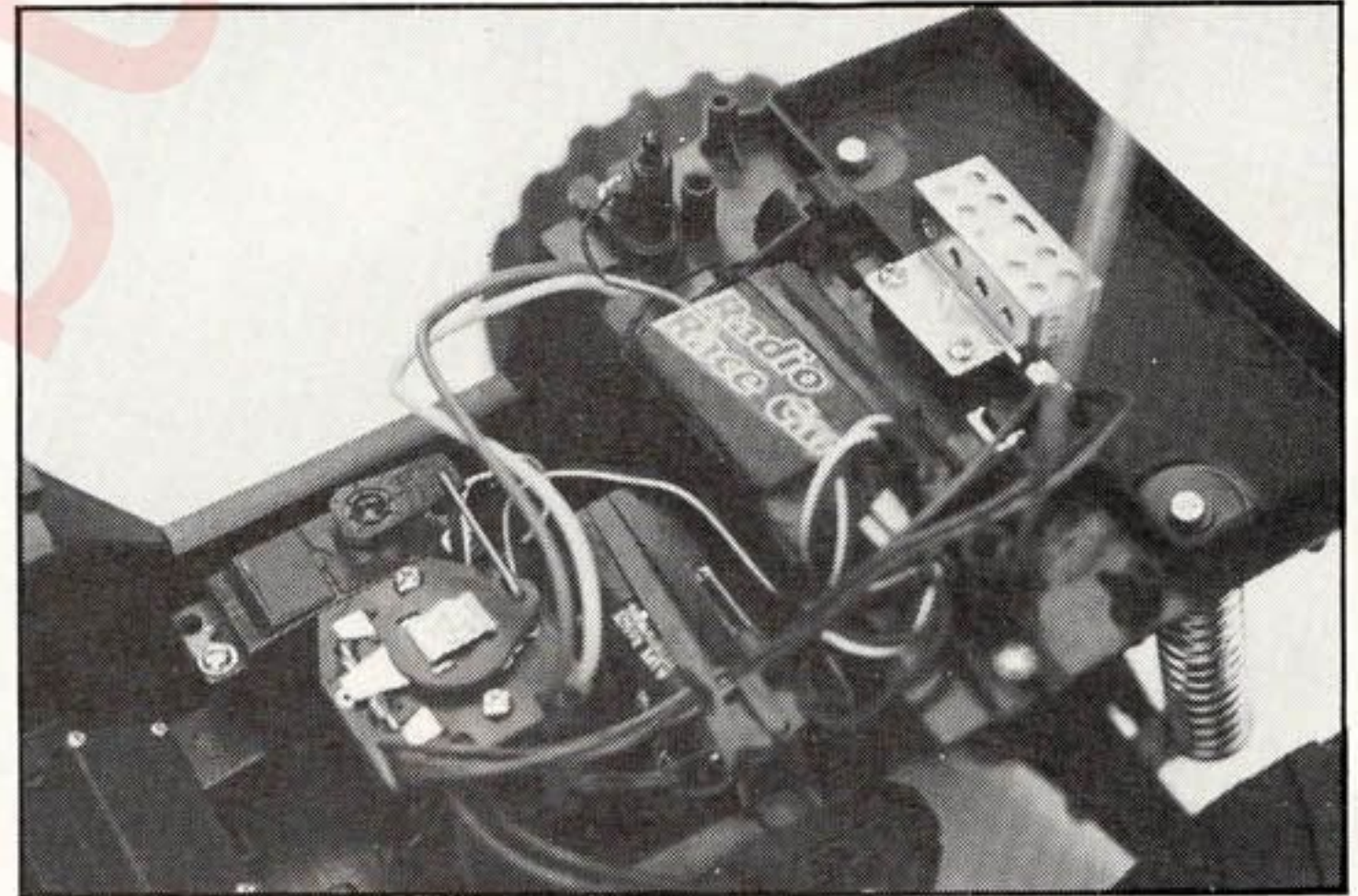
not prove a problem to the youngest builder, the only tip I need to give is to make sure the tyres are put on so the ribs face in the same directions. I have seen these types of cars with the near side tyres facing the back and the off side ones the front.

First item on the agenda is the installation of the radio gear which fits neatly into a bath tub chassis, all popular types of radio are catered for with the provision of a selection of various types of servo horns.

receiver in position on a bulkhead at the rear of the car, two sided tape can be used to stop any bouncing about. The supplied aerial tube plugs into a moulded lug in the chassis. Another well proven Tamiya part is used in the next stage and that is the three nylon bevel gear differential, the addition of silicone grease makes for a quiet, long lasting unit. The differential is sandwiched between the two gearbox housings for the outputs shafts of the rear



All the electrics are well protected within the chassis.



Well proven 3 forwards and reverse speed controller protected in bathtub chassis.

It Takes A Whole Lotta Pumpkin Just To Make My Baby Happy

The car is a very simple design with all the electrics in a large bath tub chassis. It is two wheel drive, has four large friction shock absorbers, speed control is via the well proven Tamiya three forwards and reverse resistor unit used in other cars in their range. The truck is equipped with a servo saver and is powered by a Mabuchi 540 motor which drives enormous deep ribbed 115 mm diameter tyres. The wheels dominate the truck and it must be remembered it is 1/12 scale so we have a very over tyred and over powered truck which should be a lot quicker than the larger 1/10 scale types such as the Monster Beetle.

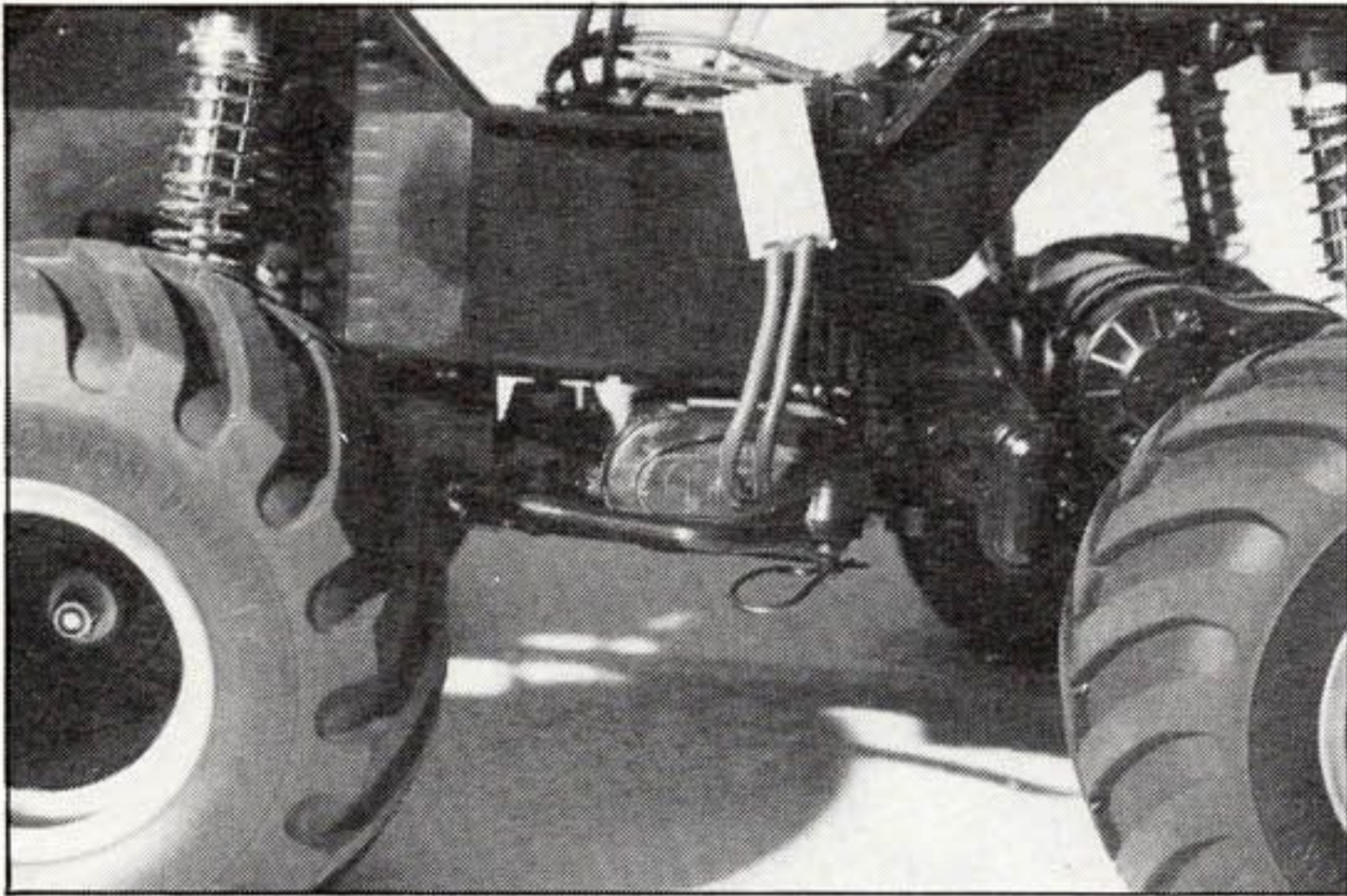
I Want To build You Up

Construction proved to be easy and should

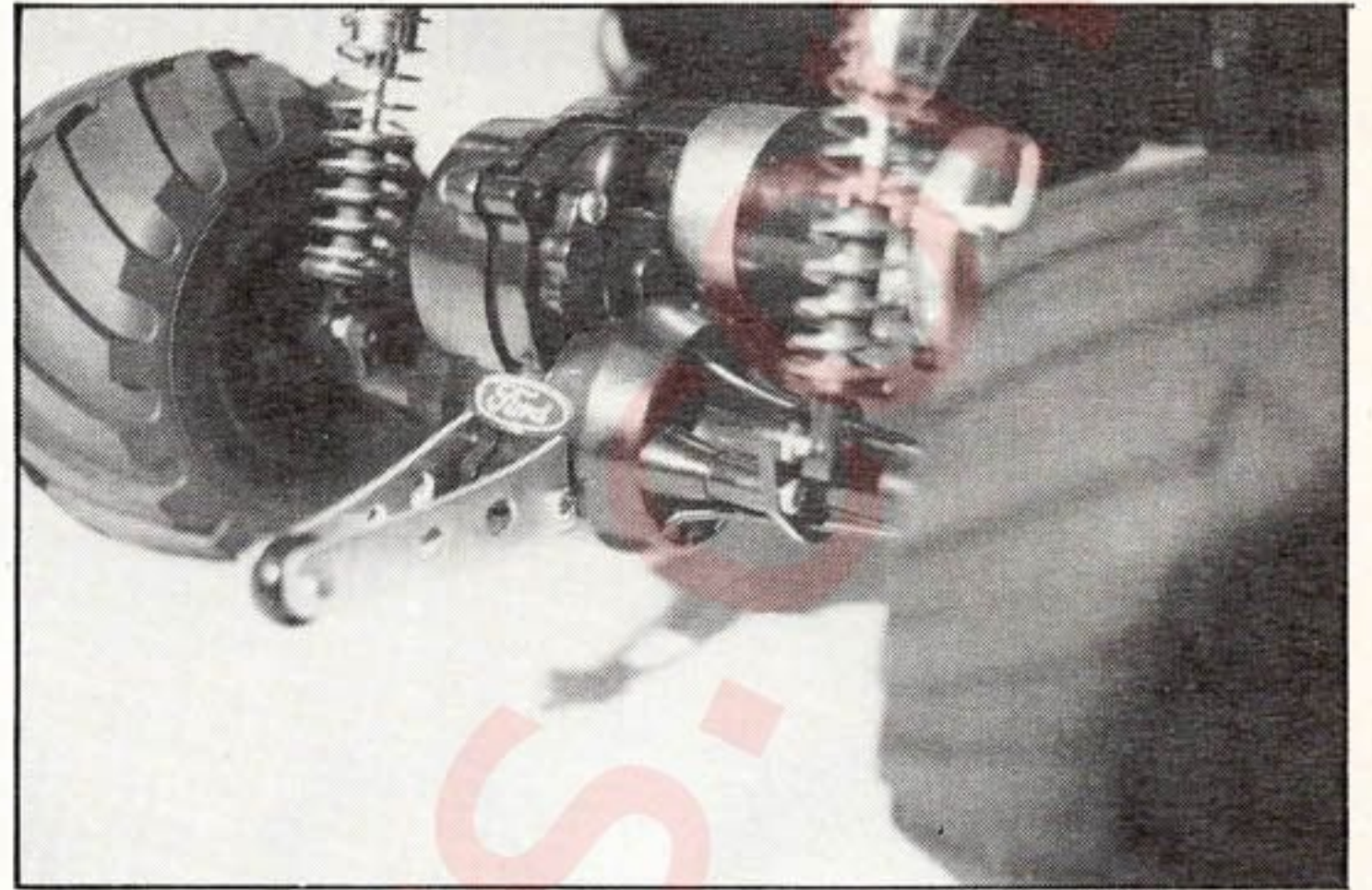
For the first time buyer it is important to centralise the speed controller and steering servo before you fit the servo horn. All you need to do is set both trims on the transmitter to neutral and plug in the radio gear, switch on the transmitter and then switch on your radio gear, both servos will take up their natural position. Switch off the radio gear then switch off the transmitter. The well proven Tamiya three speed controller can then be fitted ensuring the wiper arm is in the middle (neutral) position. The controller comes complete with BEC, battery and motor connectors and a wiring loom to plug into the speed control resistor. A servo saver is supplied with the kit for the steering (it is a device to protect the servo when you crash or drive over very rough ground), this is fitted prior to fitting the servo to the bath tub as the servo has to face downwards. A rubber band locates the

wheel drive system. Self tappers hold the two halves together. All bearings supplied are of the nylon bush type which can be replaced by ball races. A standard 540 motor supplies the power and has its motor pinion drives directly into the straight cut gears on the periphery of the differential.

Suspension is conventional at the front with single wishbones and exactly the same main spring units as the rear. The spring units look like coil over shock absorbers but are in fact just spring units with no damping, they can be changed for the Tamiya yellow oil filled units at a later date should you wish to upgrade the truck. Road holding is not the best feature of this type of vehicle so such a bolt on 'goodie' could well improve the situation. Steering rods are of unequal length because of the centrally placed steering servo, they are fitted with the well proven white Tamiya



Battery location low down to reduce centre of gravity helps with the good road holding of the Pumpkin.



5th wheel prevents car from flipping over when doing wheelies. Small cover comes off to oil gearbox.

balljoints. Rear suspension is unconventional in the respect that it utilises four springs. There are the two main units similar to the front and two much smaller springs which allow some movement at the front of the gearbox. If there is a tricky part in the construction then it is with the rear gearbox but simplicity being the order of the day I doubt it. There are the four enormous main wheels which just pull onto the yellow hubs without the need to glue them and one little wheel on the rear to prevent the truck flipping back when performing wheelies!!

Tamiya thoughtfully supply in the kit brackets, which are required should you decide to fit, their excellent yellow CVA oil filled coil over shock absorbers, also included are two spare track rod ends and four spare nylon bush bearings.

If I Said You Had A Beautiful Body

Medway Club member Alan Hughes put the car together so I could observe the building to see if there were any problems for the first time buyer (which there were not). Alan's wife, Sandra, who is the artistic one of the family, said 'Midnight Pumpkin' conjured up the picture of halloween in her minds eye as it was the time that pumpkin lanterns burnt in peoples doorways and ghosts were on the prowl. Sandra painted the car using matt black paint on both the body shell and yellow wheel hubs. The body has lots of detail on the moulding and being rigid white polycarbonate has to be painted on the outside. To keep the theme dark and mysterious a ghost was air-brushed on the bonnet, a pumpkin on each door, the wheels given golden rims and transfers kept to a minimum. In some respects it was a pity not to use the transfers as they are excellent and contain blue flames, so if you are not as artistic or as confident as Sandra just paint the truck in any base colour and use the kit transfers. The bodyclips that hold the bonnet in place need to be shortened as they dig into the body, if the holes were lengthwise compared to the body rather than at right angles the clips would not rub.

Back On The Road Again

Wheelies can be performed with ease by running the truck in reverse and then full forwards, it's then obvious why the little wheel is on the back. It is very fast but then it should be as it is 1/12 scale yet shares the same 540 motor and ni-cad power as its

larger brothers. Turning at high speed is interesting to say the least as the truck has a lot of understeer but if you back off the power it will turn quite sharply which adds to the fun and fun is what these over-powered monster trucks and cars are all about. Quick to build, quick on the road, simple to maintain and kind on the pocket, an ideal car for the first time buyer or the serious racer who wants some light relief from the rigors of racing at a competitive level.

Electric Dreams; The Acoms At1

I had been waiting a long time to test Acom's new electronic speed controller so once testing of the 'Pumpkin' with its excellent mechanical controller was complete the AT1 was installed.

The controller is an 8FET device with reverse, it is housed in a container the same size as a servo. I personally like this type of controller because they can be fitted in the position that the servo for a mechanical controller would occupy. The AT1 is particularly good as the two LED's used for setting up the device are housed on the top in a similar position to the output horn on a servo, setting up therefore can be done in situ. Technical specification is good with a

maximum current handling capability of 60 Amps and a peak of 240 Amps in forward mode. Four FET's are used for forwards and four when in reverse with a blocking current limiter in circuit to give about 50% speed when in reverse. Apart from the built-in LED's for setting up the controller and a regulated supply to drive the receiver and steering servo it has two big plus points over other controllers, one is a heat protector circuit which shuts the controller down should it start to overheat (it resets when the temperature returns to normal) and secondly an on/off switch. The unit comes complete with battery and motor connectors and weighs 70 grams.

Setting up the controller is simplicity itself using the built-in LED's, first of all the neutral point is adjusted and then the full power point using the small insulated screw driver which is supplied with the unit.

On the track it proved to be very responsive with good proportional control in both forwards and reverse.

One of the neatest and compact units on the market, very easy to set up and install. The receiver plug fits straight into an Acoms receiver and the wiring configuration is compatible with Futaba equipment.



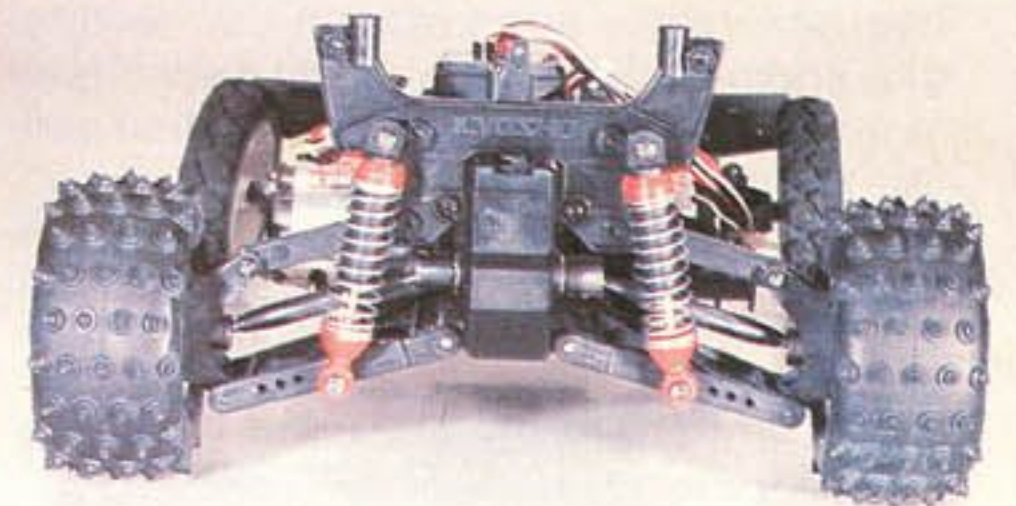
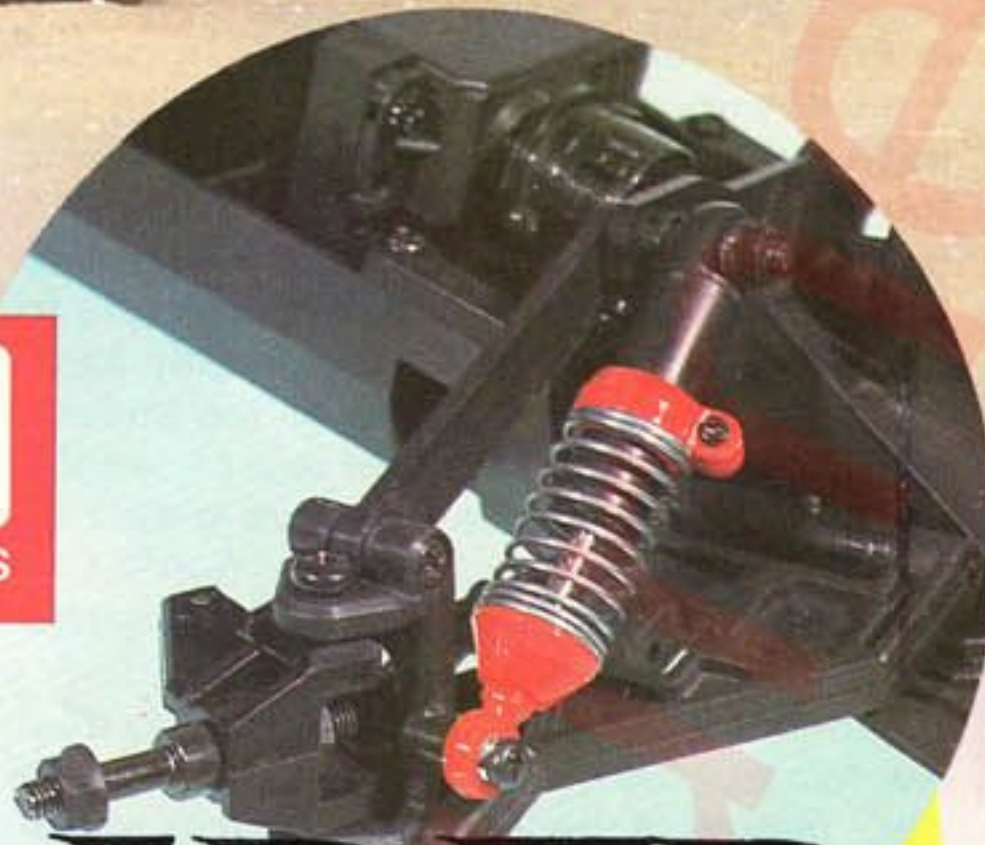
Superb body shell and the dominant wheels.

Continued on page 53

The Kyosho RAIDER offers a lot more than other beginner's buggies. RAIDER can improve as you improve. It is designed so the novice simply 'bolts-on' the up-grades as skills develop. **With RAIDER, you start at the beginning and end up on top !!**



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RAIDER

THE BEGINNERS CHAMPION



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Shown left: Some of the Option House up-grades available for Raider.



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1988

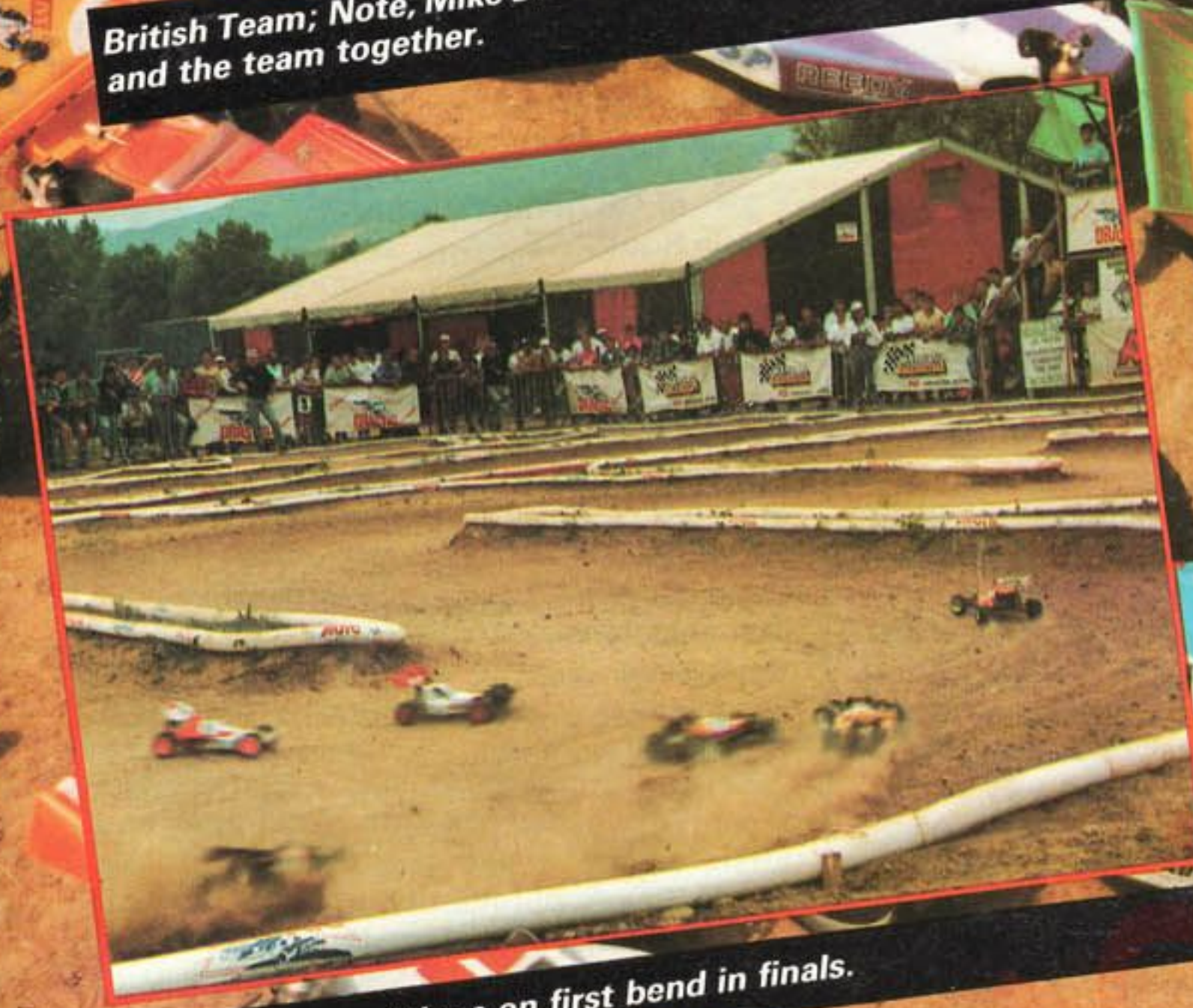
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EURO

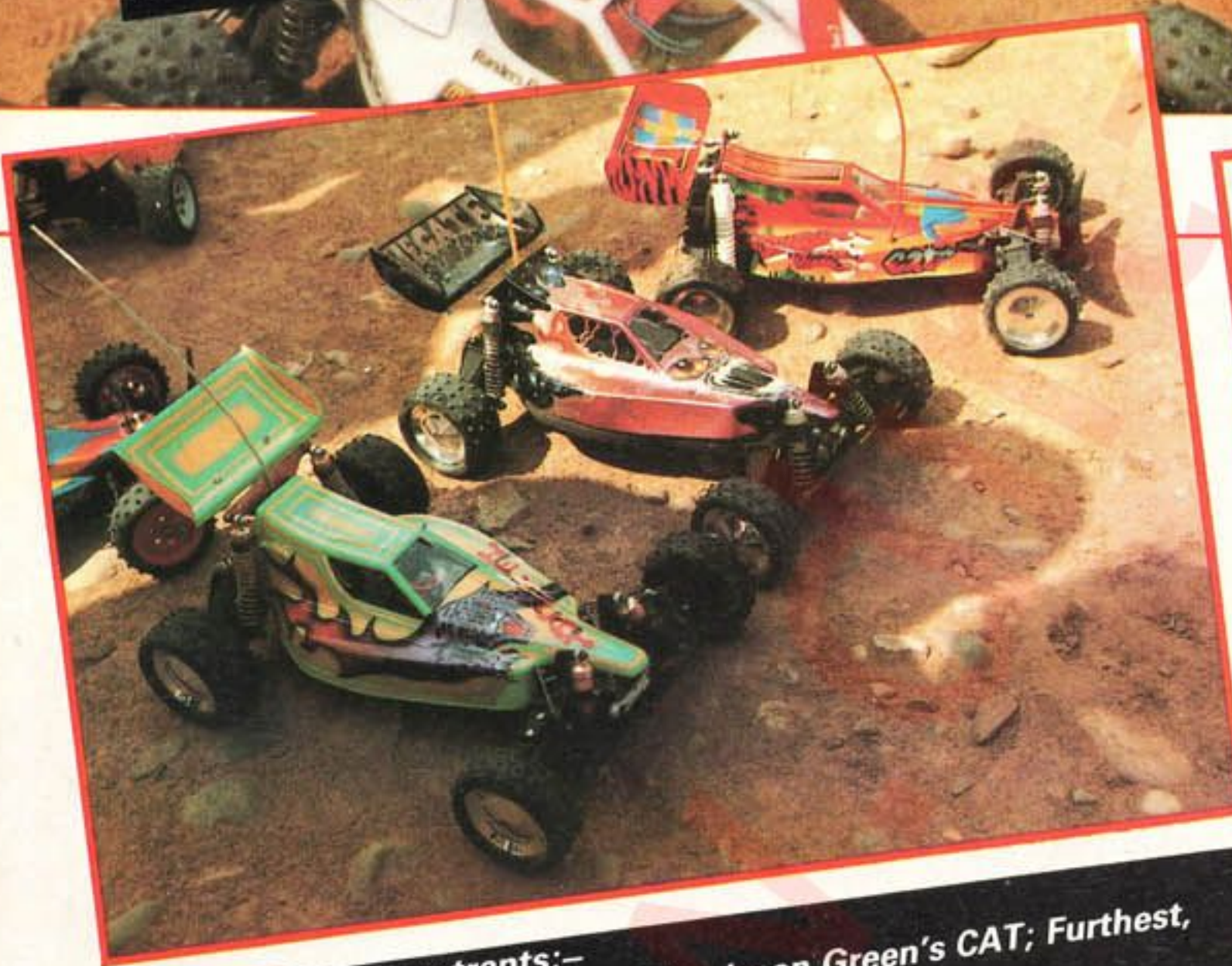
CHAMPS



British Team; Note, Mike Drescher, Team Manager holding himself and the team together.



Note dusty conditions on first bend in finals.



Some concourse entrants:- Nearest, Steve West's CAT; Middle, Jason Green's CAT; Furthest, E. 'Dallas' Mathiesen's CAT (Sweden).



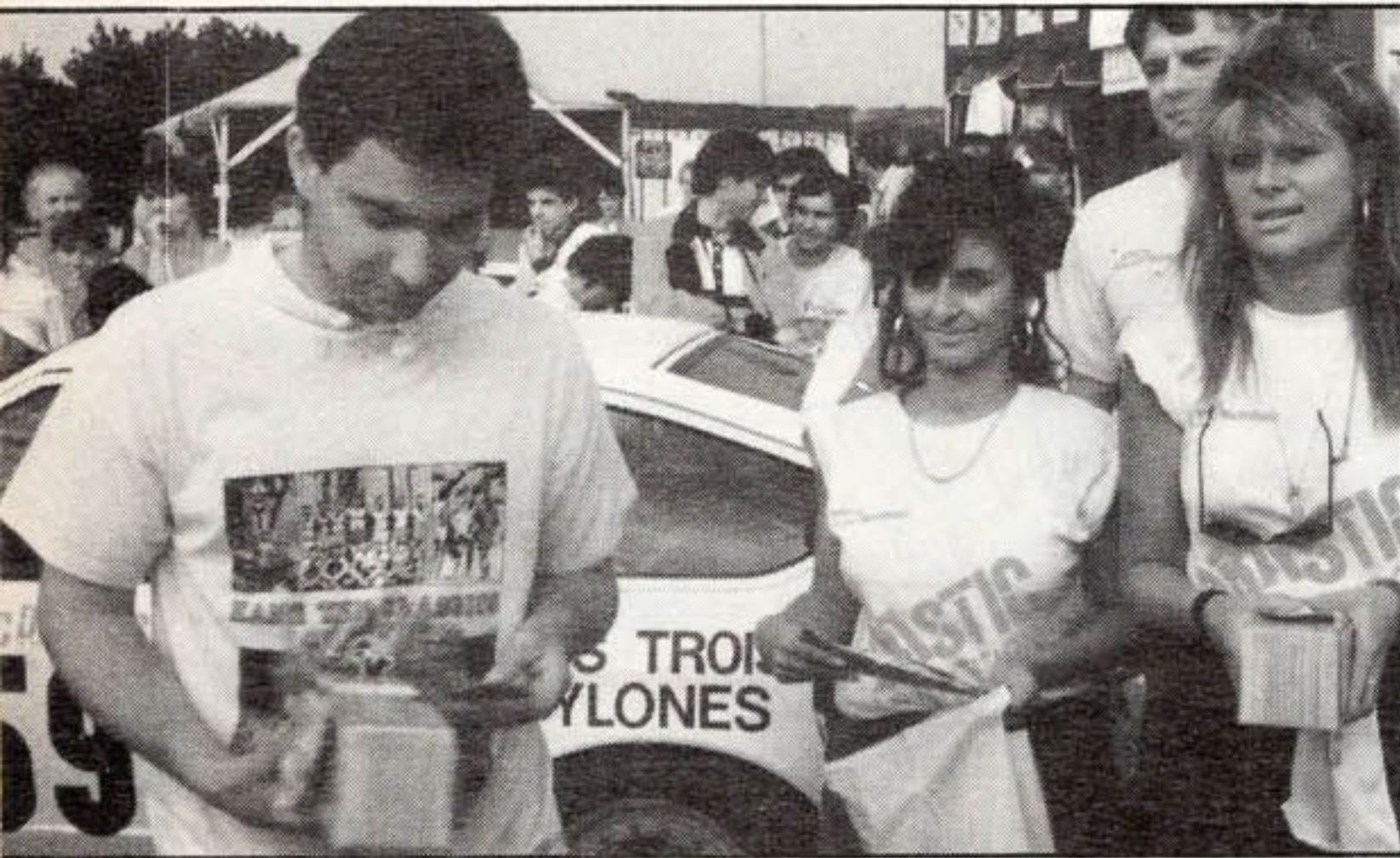
Winners and Runners Up: Craig Drescher — 3rd; Denis Blandin — 1st; Jamie Booth — 2nd. They received: 1. Bouquet; 2. Trophy; 3. Watch; 4. Medal; 5. Suspender Belt; 6. Champagne.

Es West reports on the Euro's from Genay in France.

Four years ago in Halifax, Yorkshire the first European Championships were

held. Since then, the venues have been Italy and last year Austria. This year the French were the hosts and the GT69 R/C Club, who have a track at Genay, near Lyon, were chosen by EFRA, the governing body, to stage the event.

Held over three days in June, the meeting attracted 120 of Europe's top buggy drivers who were there to vie for the prestigious title of the 1988 1/10 European Champion. The venue was situated on an industrial



Dave Allen with his trophies finished 11th.



The 'A' Final line-up. Note; Track is rough on outside and smooth on inside. This gives an advantage to some buggies.

Craig looking pleased.



estate and included all the usual trackside facilities — a large marquee for pitting, a snack bar which was kept busy throughout the event quenching everyone's limitless thirst and appetite, a spares shop and a hospitality area from Drastic, who were the championships main sponsors. Although the setting itself was disappointing (we were spoiled by the beautiful lakeside meeting last year in Austria!), weather-wise, it couldn't have been better.

At first glance, the all-important track appeared to be a smooth, low-grip dirt track with a long straight, some sweeping bends and tight chicanes. On closer inspection this proved to be the case as it was baked hard on the racing lines and dusty elsewhere, with a couple of 'sleeping policemen' just to make things a little tougher. The straight was smooth on the inside but very bumpy off the racing line... this proved in due time to be a very significant factor during the finals. We all came to the conclusion that it would be very tricky to handle even with the correct setting up and the right combination of tyres.

A quick look around the pits revealed competitors from most of the European countries, with the largest teams coming from France, Germany, Italy and last but not least, Great Britain whose team of 26 represented possibly the strongest, with potential winners in the form of Jamie Booth, Pete Stevens, Rory Cull and many other up-and-coming young drivers.

List of GB competitors:

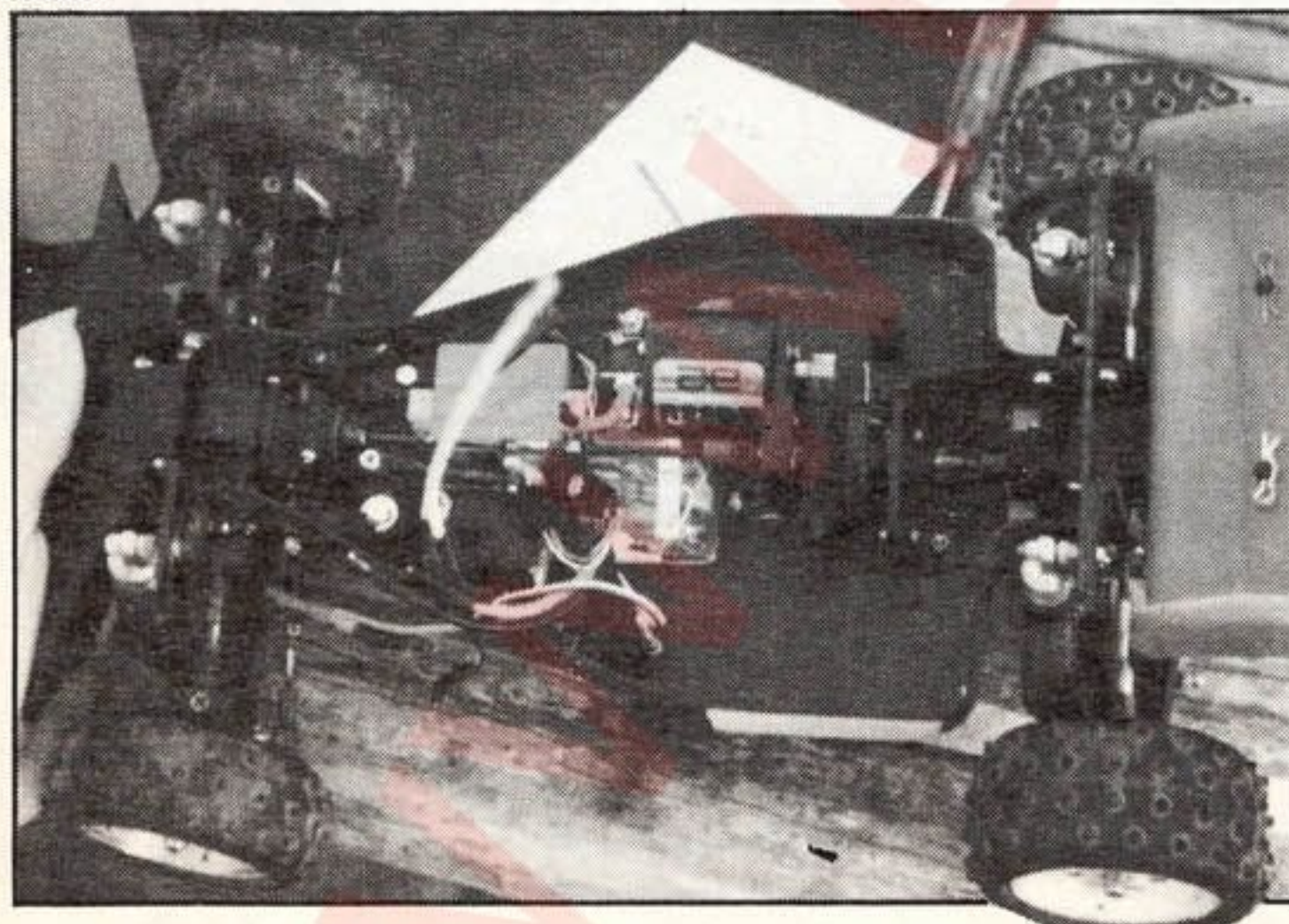
Jamie Booth	Steve West
Chris Boakes	Tony Wells
Mike Bridges	Kevin Moore
Steve Haynes	Rory Cull
Jason Green	Nino Athanasiou
Jason Fowler	Jason Varley
Lawrence Harris	Phil Davis
Mark Ferguson	Peter Smith
Ian Oddie	Ian Littley
Craig Drescher	Pete Stevens
Richard Isherwood	Darren Harris
Dave Allen	Keith Chaplin
Tim Walden	Kevin Blears

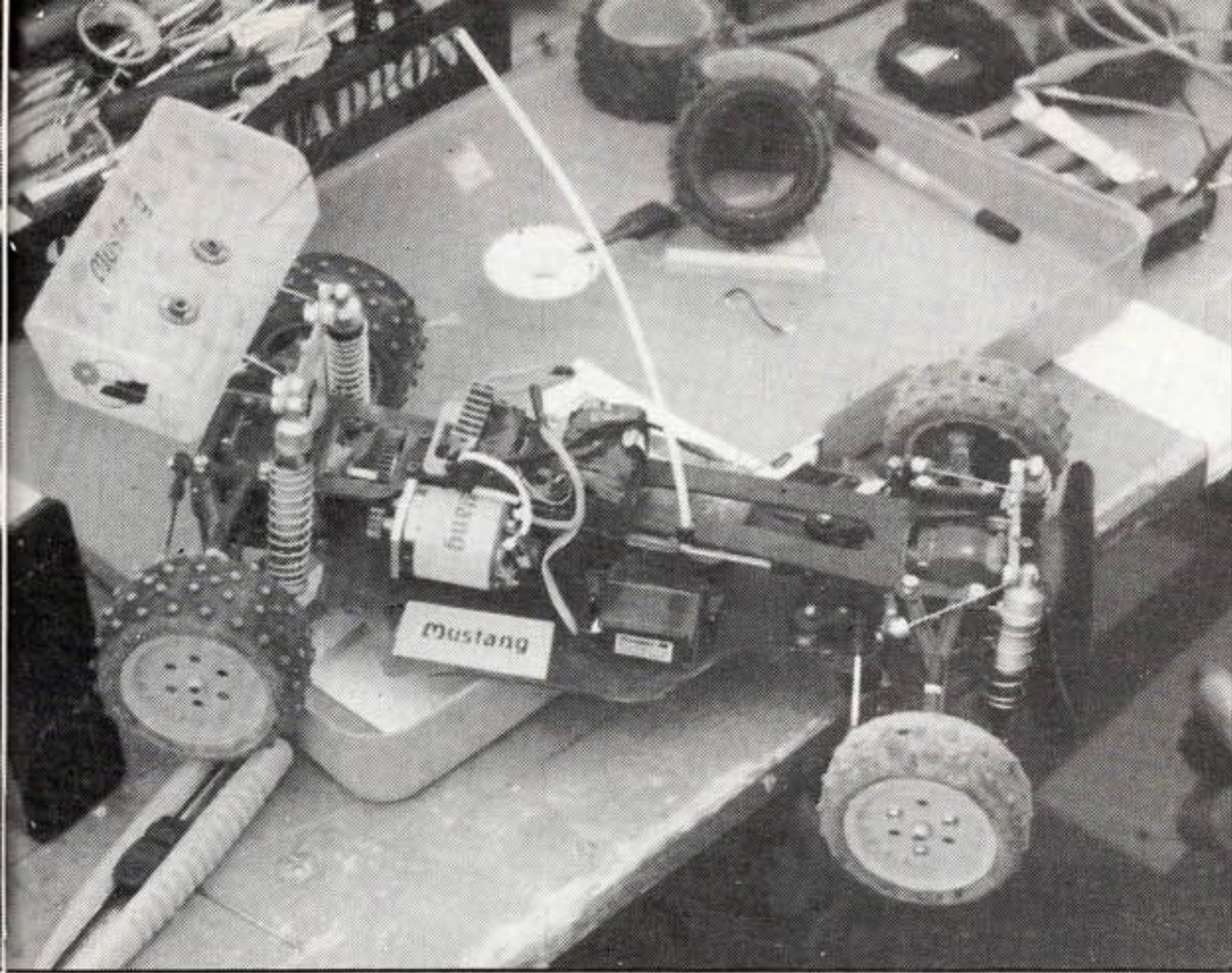
Several competitors had opted for the recently released Yokomo Dogfighter and after its impressive performance at this year's Reedy International at Romsey, it was obviously an interesting prospect on this similar surface. All the major makes of buggy were present with, as might be expected, the Cat predominant. All were 4WD and lined up as follows:

Schumacher Cat	47
Kyosho Mid Optimas	36
Yokomo YZ870C	11
TAG Coyote	6
Tamiya Avante	6
MRX	6
PB Maxima	4
Yankee	2
Scratchbuilt	2
	<hr/> 120

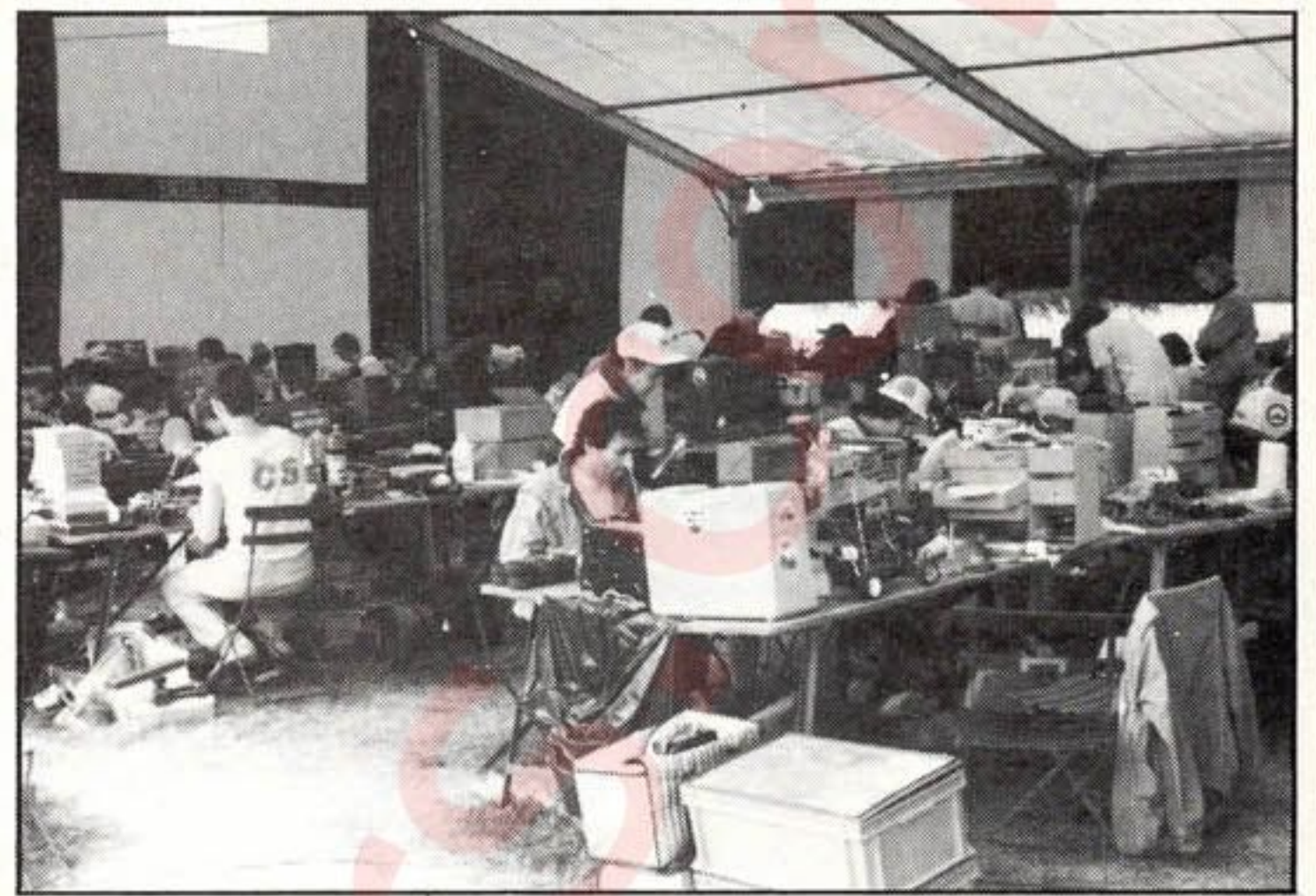
Right, the 'A' Final line-up with Mike Bridges 'posing' and Pete Stevens 'praying'.

Below, scratch built buggy called the Schmiedberg (West Germany), raced and designed by Arne Schmiedberg, built by Peter Man.





Italian Umberto Milanesi's modified Tag Pro 10.



La Pits.

Day 1 — Practice

Two hours of free practice preceded two rounds of controlled practice in heats on the first day and proved to be totally hectic. Pit boxes yawned and spat out all the relevant wierd and wonderful gadgets designed (hopefully) to achieve mechanical perfection and the huge battle for grip was on, with drivers changing tyres and shock oil faster than I could blink.

It was thought that the new Yokomo Hot-lap tyres would be well suited to this track as they were very successful at the aforementioned Reedy International and different combinations of hard, soft and medium were seen on many buggies as everyone tried to attain grip. Several drivers who had raced on the track during the French Grand Prix, some weeks earlier, were trying cut down hard Cat spikes and in fact, Schumacher had brought enough tyres to challenge Goodyear! This proved to be the most popular set-up throughout the championships, although a new Parma tyre, which is similar to the Cat tyre but made of a harder material, was in demand. These, however, are not readily available.

Setting up a car holds the key to success on any track, but this is especially true on one where grip is negligable, so the free practice and the two heats of controlled practice in the heats format which followed were crucial to many competitors.

Qualifying

Each buggy was weighed and measured in the scrutineering tent and every transmitter was checked prior to the single qualifying round which completed the first days racing. A staggered start procedure was used to avoid usual first corner pile-ups and cars were released at two second intervals. This successfully prevented 'total carnage' but, to my mind, gave some advantage to leading cars which had something like 1/3 of a lap clear track in front of them at the beginning of every run.

The excellent A & B Lap-Counting System was used in conjunction with a large electronic scoreboard which enabled spectators to keep tabs on the leading 3 positions. A future 'must' for top class meetings in this country (BRCA please note) was the general opinion on this scoreboard facility which, as the meeting progressed and clear thinking gave way to emotional turmoil, became quite indispensable!

Le soleil continued to shine and the temperature inside the marquee rose to an oppressive 88°F and the hot dusty conditions meant that the air compressors on hand to clean the buggies were made good use of.

Excellent British performances in this first qualifying round came from Jamie Booth holding 1st place, Rory Cull, Phil 'I always hold the coach up' Davies, Chris Boakes and Nino, although the pitfalls of

this difficult track had loomed ominously large to many drivers, hopefully lessons had been learned — and tommorrow was another day!

Day 2 — 3 Qualifying Rounds

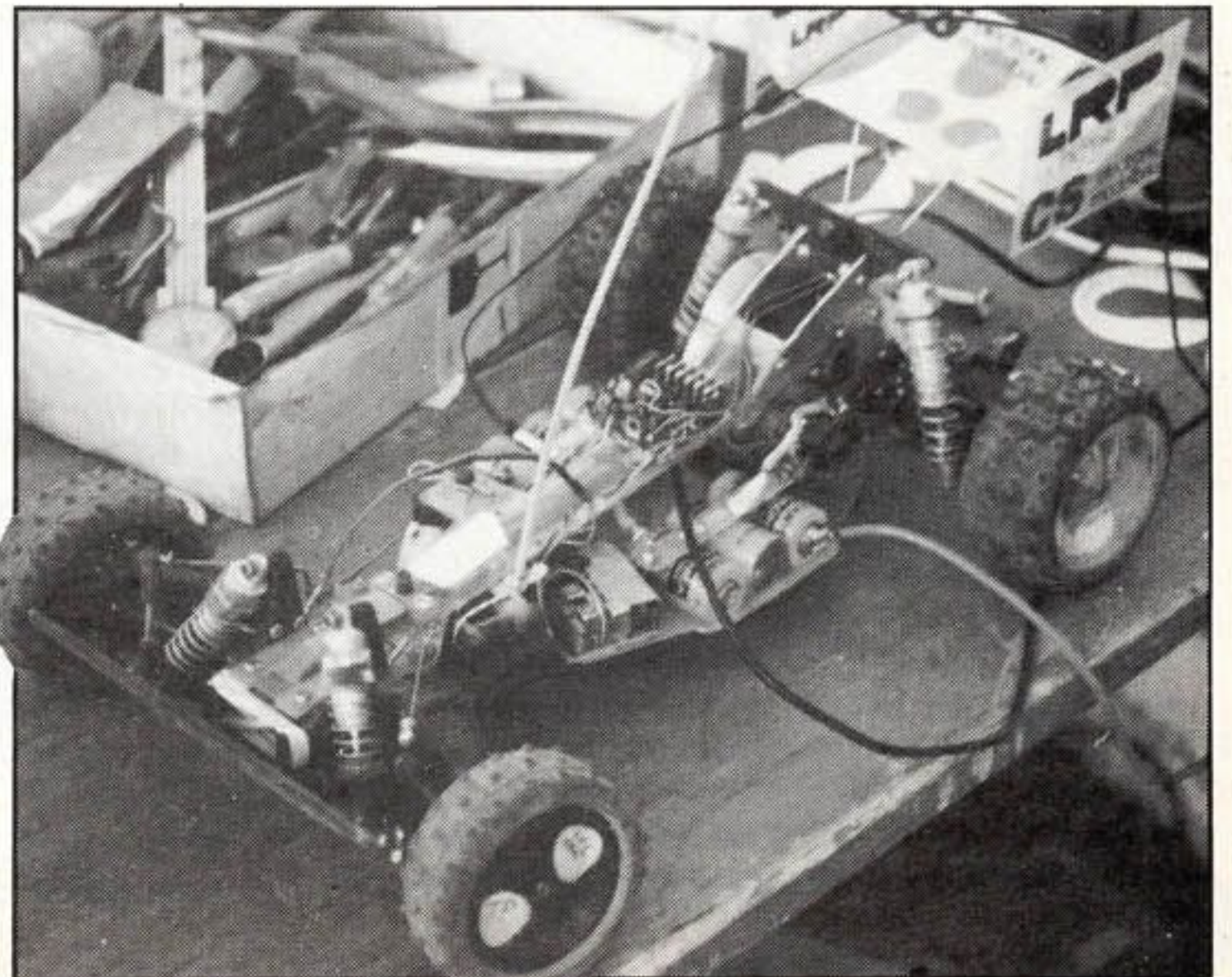
The second day dawned, cloudy but still very warm and the pits were filled once more with hopeful anticipation... with three chances to get things right!

Three rounds of qualifying heats were run and tension mounted throughtout the day. Frenchman Denis Blandin moved up into 2nd place and young Craig Drescher to 5th during round two. Thankfully, the track showed little sign of deteriorating and Mike Bridges came into the reckoning along with his MGN team mate Steve Haynes.

The first significant problem arose when the announcer changed. This caused considerable confusion, which affected quite a number of finishing times, as some did not know whether they'd finished or not! To make matters worse, penalties were imposed on anyone inadvertently passing the start line after he had officially finished.

In the last round of qualifying, a final superior effort by Blandin pinched the TQ position from Jamie, with Mike Bridges and Stephan Oberle of West Germany 3rd

Below left, Jamie receiving his trophy, etc. Below right, West German's Stephen Oberles Schumacher CAT team member races for LRP Motors. Note; Small nicad pack near aerial to drive servo for sterling. This is supposed to increase duration by 10-20 secs. Possible another lap?



1987
IFMAR 4WD
WORLD CHAMPIONS

SCHUMACHER

STOP PRESS
 1988 European
 Championships
 Cat wins 2 out of 3 finals
 and sets fastest times
 French GP 1st, 2nd, 3rd
 Austrian GP, TQ + 1st, 2nd, 3rd
 Swedish GP TQ + 1st
 British GP TQ +
 1st, 2nd, 3rd



'XLS' CAT - 4WD WORLD CHAMPION

1/10 SCALE OFF-ROAD RACER

New for 1988 is the 'XLS' CAT-4WD World Champion Kit. The kit enables you to build an exact replica of the World Championship Winner and Top Qualifier. The Schumacher CAT has won almost every major International event in 1987 and it has done this without the use of expensive 'Hot Up' parts. The World Championship Winning car was built up from totally standard off the shelf parts.



1988
IMPROVEMENTS

Front Differential

Shock Absorbers -
 New Low Friction Seals

Chrome Wheels

Rear Tyres - new internal ribbing

Front Suspension - extra rake,
 width and modified geometry

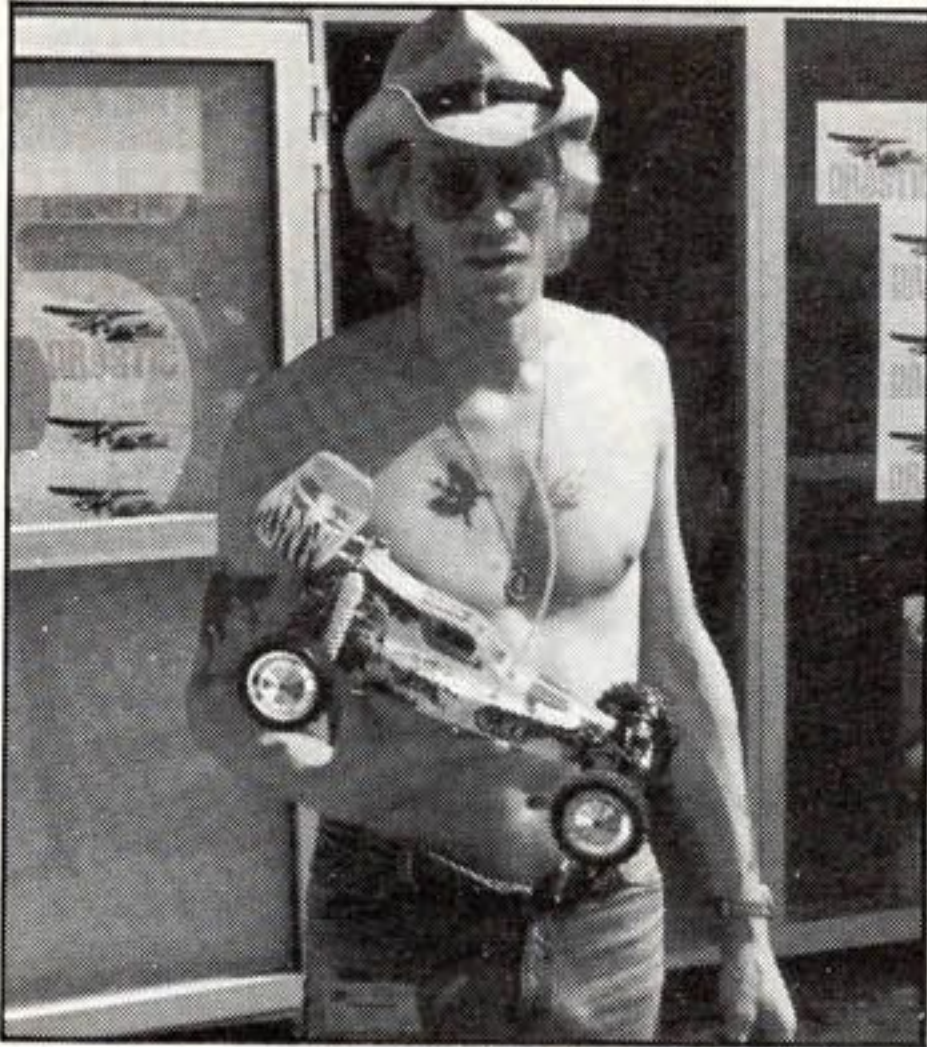
One Way drive shafts

The 1988 kit now available includes various parts developed during 1987 to further improve the performance and reliability of the Cat.

Rear Suspension - extra width
 and modified geometry



Performance and technology that YOU CAN BUY!



Sweden's E 'Dallas' Mathlesen's Schumacher CAT and himself can't understand why it didn't win concourse.

and 4th respectively. These four were in the enviable position of going straight into the A final.

As always, lighter moments broke the seriousness of the day and brought a welcome titter — forgive the pun — like the mum, who for modesty's sake shall remain nameless (she'll never forgive me for this!) and whom, rumour has it, was never so glad for the aid of a couple of ty-wraps!!

Day 3 — Finals

On arrival at the track on finals day, we were dismayed to discover that one of the West German drivers Stephan Danz had lost all his racing gear with the exception of his buggy — it had all been stolen from his car on the previous night! Although he was able to race the finals on borrowed tackle, this was obviously a great blow to the 6th place qualifier of the previous day.

The finals promised to be very exciting, as the 'Xmas Tree' system was used. For those not familiar with this, let me briefly explain. All drivers, with the exception of the first 4 automatic A final qualifiers, must race out their respective finals and aim to finish in the first three. These 3 then move up and race in the next higher final. Thus the first 3 to finish in the 1/128 finals, which are the first of the day, move up to compete in the 1/64 finals and so on right up the 'tree'. In this way it is possible to clinch one of the remaining six places in the A final... providing you have a mountain of charged cells at your disposal!

We anticipated some great racing and we weren't disappointed!

Unlike the qualifiers, the start for the finals was on the far side of the track — half-way down the main straight. Cars on the inside had the advantage of a smooth surface, but those starting in the rough, stony outside lane were obviously less well off! First bend pile-ups were seen to be inevitable and protests were raised. These were overruled and racing went ahead, but the start, as expected, became an all important factor in the finals.

Despite this, some great racing was witnessed. Notably, Tony Wells, who started in the 1/32 final, reached the 1/4 finals only to fall victim to a disintegrated integrator; and Jason Varley who had successfully conquered two finals to comfortable lead the 1/8 before a broken brush spring put paid to his day. If only...?

As the finals continued, the start became more and more the deciding factor. This was apparent in the three A final runs which followed, where it became crucial to make it round the first two bends.

Shortly before the main finals were run, a Concourse D'Elegance was held to find the 'Buggy Beautiful'! The most outstandingly outrageous, perfectly painted or, in any event, terrifically turned out car on the day. After much deliberation the eventual winner, an Italian Cat, was chosen, but rumour has it that Mike Dreschers shorts came within a whisker or should I say 'whisper' — heard plenty — of taking the trophy!

A Finals

The first A Final produced a scrappy start with Blandin leading round the first bend. He was never caught. Rory Cull secured 2nd place with an impressive run and Jamie, after pushing too hard on the final lap, relinquished 3rd place to Pete Stevens and slipped to 4th. Blandin had landed the first 13 lapper of the championships.

In the 2nd A final, Jamie led the field from the start with Mike Bridges in close pursuit. Blandin came through the field to challenge the leaders and forced 2nd place to threaten Jamie's lead, pushing Mike into 3rd place, where he eventually finished. The Brits outchanted the French with deafening shouts of 'Jamie, Jamie' and cheered him to victory in as exciting a race as you could wish to see. Jamie had replied with a thirteen lap win — but Blandin in 2nd place also had 13 laps.

So, in the third final, Jamie had it all to do. The atmosphere was 'charged' with excitement — nothing to do with cells, you understand — as anticipation mingled with the whiff of pommes frites (French fries to you!) and everyone waited... Not only did Jamie have to beat Blandin to win, he had to do it with a 13 lapper. Sadly, it was not to be. Unlucky tangle, on the 2nd bend at the start shattered Jamie's dreams for this year and silenced the entire British contingent. To beat Blandin now was virtually impossible. But no one would want to take the glory of this race away from young Craig Drescher, who led from start to finish in an impeccable run which was to clinch him



Some British Team members in the pits, note Jason Varley in 'Tears'.

the No. 3 spot on the winners rostrum. This victory for Craig was a fitting end to his magnificent efforts over the 3 days in Genay.

Pete Stevens clinched 2nd place with Mike Bridges 3rd. Jamie finished back in 8th after a vain attempt to pull out at the stops on a surface which quite simply would not allow it.

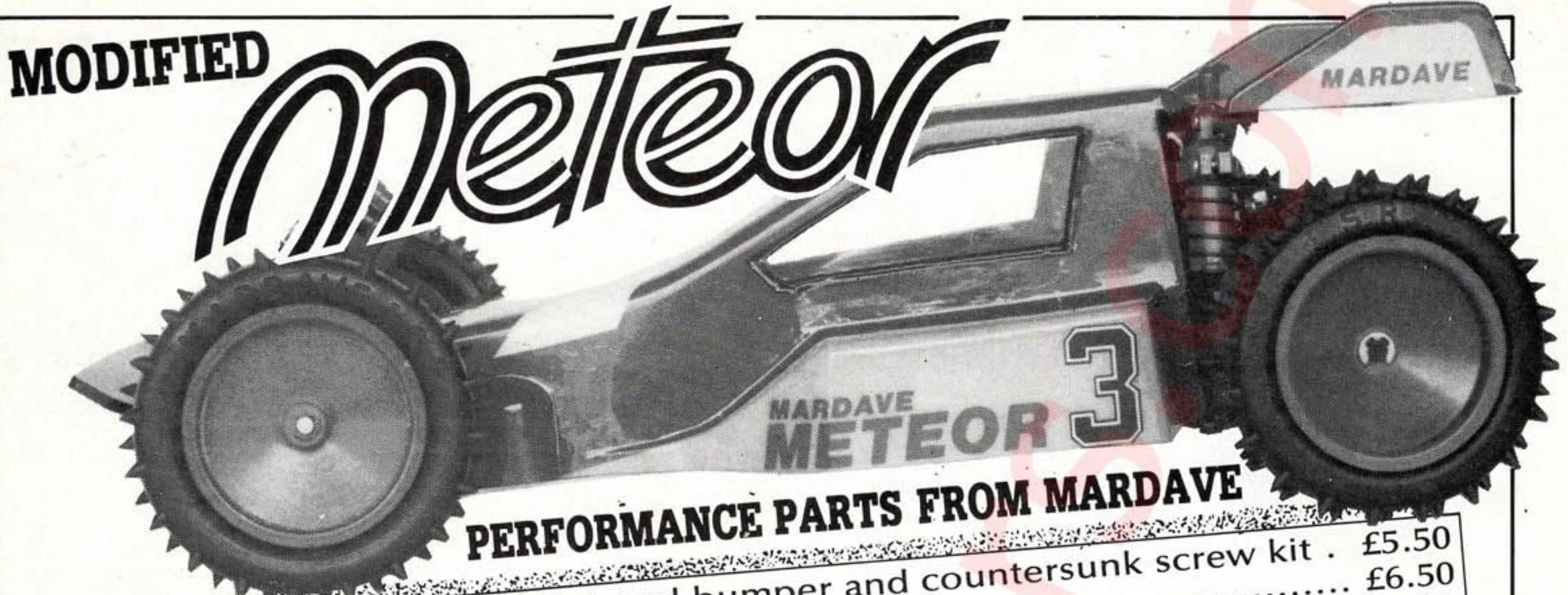
And so it was a French victory, with a well-deserved win by Denis Blandin. The British proved, however, that they are the main force in Europe with many young drivers climbing the Xmas tree to new heights. This contributed greatly to a magnificently exciting day for us, with ten out of the final top 20 positions held by Brits.

Final Top 20 Positions

1	Denis Blandin		11	Dave Allen	GB
2	Jamie Booth	GB	12	Kevin Moore	GB
3	Craig Drescher	GB	13	Phil Davies	GB
4	Pete Stevens	GB	14	S. Kohler	
5	Mike Bridges	GB	15	S. Metz	
6	Rory Cull	GB	16	S. Solaroli	
7	Stephen Oberle		17	J. Rosas	
8	Klaus Wilhelm		18	Steve West	GB
9	Steve Haynes	GB	19	O. Ganss	
10	W. Bergbauer		20	F. Veyseyre	

Finally, our congratulations go to the organisers. No expense was spared to make it an extremely enjoyable 3 days which culminated in a memorable presentation complete with National anthems and wine, medals and French silk suspender belts for most competitors — perfectly appropriate... VIVE La FRANCE!

Driver	Country	Car	Motor	Radio	Tyres F	Tyres R	Gear Ratio	Speed Cont'r	Cells	Qual Pos	Final Pos
Denis Blandin	F	Kyosho Mid LW Optima	Reedy Pink	Sanwa Exerd	Kyosho Blocks	CAT	16/74	Novak 1X	Soft VY	1	1
Jamie Booth	GB	CAT XL	Reedy 15D	JR Apex	CAT	CAT	32/118		Schumacher 1700 SCE	2	2
Craig Drescher	GB	CAT XL	Reedy Red 17D	Sanwa Exerd	Parma CAT	Parma CAT	32/120	Sanwa Vortex	Laser Special	5	3
Pete Stevens	GB	Kyosho Mid 4 Opt	Twister 17D Wet	Kyosho	CAT	CAT	19/74	Laser	Laser SCR	8	4
Mike Bridges	GB	CAT XL	MG 15D	Futaba 2LGX	CAT	CAT	25/118	Nosram Exterminator	Nosram SCR	3	5
Rory Cull	GB	CAT XL	Reedy Red 17D	JR Apex	CAT	CAT	32/120	Demon Pro-King	Schumacher 1700 SCE	7	6
Stephan Oberle	W Germany	CAT XL	LRP Orange	MPX	CAT	CAT	28/120	CS Rocket	CS SCR	4	7
Klaus Wilhelm	W Germany	Kyosho Mid Opt LW	Reedy Gold	MPX	Kyosho	TAG	21/74	CS Rocket	Kiel SCR	9	8
Steve Haynes	GB	CAT XL	MG 14D	Futaba 2LGX	CAT	CAT	22/122	Nosram Exterminator	Nosram SCR	10	9
Werner Bergbauer	W Germany	Yokomo	Reedy Pink	MPX	CAT	TAG	17/81	Flash	Demon SCE	6	10



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**Just arrived
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S.C.E.
£32.50**

Continued from page 45

Priced at around £49, it is good value and ideal for use with a standard motor.

A fact you may be unaware of is that Acoms pride themselves with the boast that should a component of theirs develop a fault they endeavour to turn the item around in 48 hours on a replacement basis.

Dreaming Always Dreaming

All the major manufacturers now have at least one car crusher in their range whilst Tamiya have several. With the numbers of these cars built and sold (they were particularly popular as Christmas presents), it's about time we stopped talking about having events for these cars and did something positive. The fact they are not designed for racing and their roadholding is not brilliant will add to the fun.

I don't think it will be necessary initially to build a special circuit for them, maybe a normal club circuit with a few obstacles such as a ramp, some sand filled hoses (laid across the track) and a few wall bricks placed strategically would suffice. These 1/12 crushers would be quicker than their 1/10 scale counter parts but they would have more problems with the obstacles, so the differences could even themselves out, what we would get is one heat per meeting of spectacular racing for spectators and drivers alike. Maybe an extra point could be awarded for the longest wheelie of the day!!

Can you imagine a competition of a mixture of clod busters, pumpkins, lunchboxes, monster beetles, big brutes and big bears. Seeing the interest that one of these cars always creates the sight of eight at once is something I have never seen but



perhaps in 1988 I may have that pleasure for the first time.

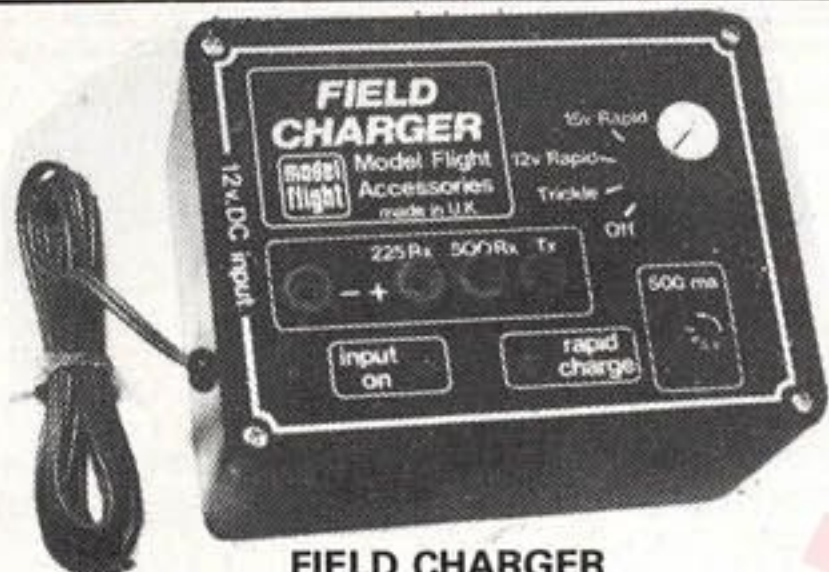
Reprise

The pumpkin makes a fine dessert to the lunch box menu and what fun to see these two 1/12 scale cars competing against each other, perhaps the lunch break at a race

meeting would be the obvious time! Just for the record the Number One Christmas hit in 1952 was 'Here In My Heart' by Al Martino.

Apologies to the hit parades of the past and thanks to Ted Knight, Lin Stammer and Alan and Sandra Hughes for thier help with this review.

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CONGRATULATIONS TO:

Ben Sturnham - Gold Star - 1st A Finals BRCA 4WD Mod. Halifax.
Chris Davidson - Gold Star - 1st A Finals, Chesham Interclub, April.
Nathan Ralls - Silver Star - 1st A Finals Junior S.O.W. June.

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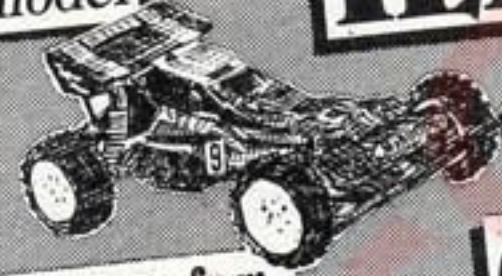
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**Position Table 4WD Standard
After 4 Rounds**

1	Warren Dawson	Radio Race Car	377
2	Tony Bretton	Basildon Buggy Club	359
3	Richard Barton	Aylesbury ORC	333
4	Michael Wray	Private	296
5	Nathan Ralls	Medway Off Road Club	283
6	Steven Swan	Orton Racers	278
7	Colin Steele	RCP	275
8	Ross Cole	Dangerous Bros	271
9	Andy Pierce	RCP	267
10	Mark Ashton	Rushton Buggy Club	261
11	Stuart Perry	Basingstoke Radio CC	256
12	Steve Cook	Aylesbury Off Road C	255
13	Devin Griffin	Macartneys Models	245
14	Brian Pierce	Kidderminster MCC	225
15	Sam Durbin	Oakdale	218
15	Chris Heath	TNT Publicity	190
17	Cy Lapwood	Basildon Buggy Club	217
18	Roy Kelly	Basingstoke	205
19	Dave Pearson	Radio Race Car	203
20	Phil Heath	TNT Publicity	190
21	Richard Peters	Worcester MCC	186
22	Richard Clements	Dangerous Bros	183
23	Wayne Irish	Kidderminster MCC	182
24	Matthew Williams	Oakdale RCCC	178
25	Robert Hopkins	Private	175
26	Tony Meech	Abergavenny RCCC	162
27	Andy Rose	Abergavenny RCCC	155
28	Philip Walden	Heathrow	134
29	Justin De'ath	Private	124
30	Mark Mainey	Dowty Radio CMC	100
30	Rory Cull	Team Reedy	100
32	Mark Tamsitt	Team Apex Models	99
32	Gary Crowther Green	Private	99
34	Neil Tamsitt	Team Apex Models	98
34	Greg Lane	Private	98
36	Lee Butcher	Private	97
36	Jim Davis	Team FTD	97
38	Chris Boakes	Private	96
39	Matthew Harrison	GEC Stychfields	95
40	Stephen Lane	Private	94
41	Andrew Robson	GEC Stychfields	93
42	Mark Rogers	Basingstoke Radio CC	92
42	Mike Stevenson	Private	92
44	Steve Pike	Basingstoke Radio CC	91
44	John Broadhurst	Kidderminster MCC	91
44	Phil Edmonds	GEC Stychfields	91
47	Antony Hill	Nene Radio CCC	90
47	John Robson	GEC Stychfields	90
49	Alan Blakeman	Private	89
50	Mike Taylor	Private	88
51	E. Youd	Private	87
51	Nick Halstead	Private	87
51	Jason Bohin	Private	87
54	Antony Webster	Medway Off Road Club	86
54	Andy Beesley	Private	86
54	Darren Watson	Oakdale	86
57	Stuart Anderson	Basingstoke Radio CC	85
58	Mike Cooling	Boothlane Buggy Club	84
58	Roy Rogers	Ludlow Radio C C	84
60	Steve Allan	Private	83
60	Graham Mallings	Private	83
60	Andrew Griffiths	Teiffyside	83

2WD Standard — Round 6

Driver	Car	Cells	Motor	Speedo	Servo	Tyres F	Tyres R	Pos
Ken Rieth	RC10	Nos	MG	Touchtronic	131 S	CAT	CAT	8th
Steve Jones	Mardave Meteor	Jonspeed	Demon 27 Single	Demon Pro King 8 FET	JR 4001	CAT Hard	CAT Hard	1st
Greg Halliday	Mardave Meteor	Technicad 1700	MG Brown Dot	Demon Pro King	131 SH	CAT Hard	CAT Hard	9th
Richard Adams	Ult	Trinity SC	Trinity	Novak	135	CAT Min	Opt Blocks	4th
Jonathon Howells	Ult	Overlander	MG	Intronics	132 S	Dyn	Opt Nov Spike	2nd
Olly Carnelly	RC10	Overlander	MG	Fetish	131	CAT	CAT	3rd
Craig Hughes	Ult	Overlander	MG	Nos 11 Fet	131 SH	CAT	CAT	10th
Martyn Prince	Ult	Overlander	MG	Novak	132	Proline	Proline	6th
Bruce Turner	Opt 2WD	Parma SC	SRM Scorcher	Goldstar	131 SH	CAT	CAT	5th
John Broadhurst	RC10	Sanyo SCR	MG	Pro King	131 SH	Dyn	CAT	7th

4WD Standard — Round 4

Driver	Car	Cells	Motor	Speedo	Servo	Tyres F	Tyres R	Pos
Greg Lane	CAT XLS	Jonspeed 1.7	Demon 27 single	Novac	131 S	CAT Hard	CAT Hard	10th
Matthew Harrison	CAT	Sanyo	Parma	Demon	128	CAT	CAT	2nd
Andrew Robson	CAT	Laser	MG	Nos	132	CAT	CAT	8th
Phil Edmonds	CAT	Parma	Twister	Novak	131	CAT	CAT	9th
Steve Lane	CAT	Jonspeed	Demon	Novak	131 S	CAT	CAT	7th
Gary C Green	CAT	MCC Cells	Rev	Nos	131 SH	CAT	CAT	5th
Rory Cull	CAT	Nos	Demon	Deman	131 SH	CAT Mega Spike	CAT Mega Spike	1st
Jimmy Davis	Yokomo	Overlander	MG	Intronics	Multiplex	CAT Mega Spike	CAT Mega Spike	3rd
Chris Boaties	CAT	KWB Matched	Demon	Laser	131 S	CAT Mega Spike	CAT Mega Spike	4th
Mike Stevenson	CAT 2 Speed (Never out of 1st)	Sch	MG	Speedmaster	131 SH	CAT Mini Spike	CAT Mini Spike	6th

**Position Table 2WD Standard
After 6 Rounds**

1	John Broadhurst	Kidderminster MCC	562
2	Kevin Griffin	Macartneys Models	526
3	Oliver Carnelly	Team FTD	487
4	Wayne Irish	Kidderminster MC	475
5	Ken Reith	Donisthorpe	472
6	Warren Dawson	Radio Race Car	438
7	James Brewer	Sandwell CA	427
8	Paul Lisseter	Team FTD	399
9	Richard Adams	JS Racing	394
10	Mark Glover	Team FTD	387
11	Dave Pearson	Radio Race Car	384
12	Martyn Prince	Stafford	377
13	Robert Hopkins	Private	376
14	Roy Rogers	Ludlow Radio Car	341
15	James Brewer	Sandwell CA	339
16	Hugh Davies	Private	322
17	Jason Bolton	Private	312
18	Chris Harrison	GEC Stychfields	295
19	John Fryer	Private	260
20	Andy Pierce	RCP	256
21	Matthew Williams	Oakdale RCCC	254
22	Richard Brookes	Kidderminster MCC	251
22	Tony Brace	Private	251
24	Brian Pierce	Kidderminster MCC	247
25	John A Coram	Poynton	235
26	James Dore	Rotherham Buggy Club	217
27	Miss Nikki Barratt	Private	185
28	Peter E Smith	Lichfield Buggy Club	175
29	Jonathon Tucker	Private	169
30	Ian D Smith	Lichfield Buggy Club	161
31	Geoff Hind	Private	150
32	Neil Cross	Private	149
33	Richard Dalby	Private	143
34	Stephen Fidgeon	Dudley	130
35	Clive Taylor	Swindon Off Road C	127
36	Andrew Clough	Private	122
37	Steve Jones	Private	100

38	Chris Davidson	Race Store	98
39	Craig Hughes	Private	97
40	Phil Edmonds	GEC Stychfields	96
41	D. Taylor	Medway Off Road Club	95
42	Greg Halliday	WDA	94
43	Tim Shepherd	Private	93
43	Jonathon Howells	Team FTD	93
45	Trevor Deakin	Team FTD	92
45	David Hall	Private	92
47	Bruce Turner	Private	91
47	Simon Hunt	Private	91
47	Alan Boothman	Private	91
50	Richard Hughes	Private	90
51	Malcolm Harris	Private	86
51	Bob Harris	Kidderminster MCC	86
53	Chris Jenks	Trans Am Electronics	85
54	Keith Belson	Trans Am Electronics	84
55	Marcus Taylor	Team FTD	83
56	Michael Dover	Private	82
56	David Sanders	Private	82
58	Gary Cutler	West Mids Buggy Club	81
58	David Ward	Private	81
60	Ian Watkins	Worcester MCC	80

Position Table 4WD Modified After 4 Rounds

1	Mark Hewitt	Team Laser	356
2	Mark Chaplin	Tamiya	292
3	Paul Evans	Private	290
4	Chris Boakes	Chesham Off Road	289
5	Brennan Ralls	Medway Off Road Club	276
6	Les Hewitt	Team Laser	271
7	Mike Stevenson	Private	269
8	Mike Billet	Chippenham Model CC	257
8	S. Evans	Private	257
10	Alan Garrington	Swindon Off Road	254
11	Simon Tooley	Chesham Off Road	247
12	Eddie Williams	Cardiff	231
13	Duncan Wood	Dowty Radio CMC	228
14	Richard Adams	JS Racing	227
15	John Robert Fryer	Private	223
16	David Porter	Swansea Electric	221
17	Paul Green	Blakehall	217
18	John Zottle	Basingstoke Radio CC	197
19	John Illiffe	Dowty Radio CMC	195
19	Bruce Turner	Private	195
19	Andrew Langdon	MGN	195
22	Stuart Yates	Chiltern Model Car	190
23	Alexander Page	Puma Racing	189
24	Steve Legg	Private	187
24	Nick Cochrane	Private	187
26	Nick Daman	Medway Off Road Club	179
27	Paul Jorgenson	Club Heathrow	170
28	Chris Davidson	Racestore	168
29	Paul Rouse	Bournemouth	167
29	Adam Green	Brimod	167
32	Brian Burrows	Private	165
33	D Bruton	Private	164
34	Wayne Darwell	Medway Off Road Club	160
34	Dave Eggleton	Sandwell CMC	160
36	A Barber	Private	158
37	RC Corless	Swindon Off Road	156
38	Jason Barnes	Worcester Model CC	153
39	Gary Cutler	West Mids Buggy Club	149
40	Edward Walden	Heathrow	148
40	Daryl Firth	Private	148
42	Jason Billet	Chippenham Model CC	138
43	Peter Darwell	Medway Off Road Club	136
44	Dave Richards	Wellingborough BV	130
45	John Clark	Private	128
46	Elliott Stevens	Brimod	127
47	John Derrick	Sloopy RCW	116
48	Andrew Griffiths	Dowty Radio CMCC	110
49	Darren Murphy	Private	109
50	David Clutterbuck	Teifyside	106
51	Philip Agg	Dowty Radio CMC	105
52	Jason Cook	Medway Off Road Club	101
53	Rory Cull	Team Reedy	100
53	Jim Davis	Team FTD	100
53	Colin Walker	Dowty Buggy Club	100
56	Paul Lisseter	Team FTD	99
57	Mark Timmins	Timmins Electrical	98
57	Ben Sturnham	Racestore	98
59	Andrew Smith	Pyramid Model CC	96
60	Paul Hartstone	Rolls Royce	95

Position Table 2WD Modified After 6 Rounds

1	Jonathon Howells	Team FTD	564
2	Rory Cull	Team Reedy	497
3	Jason Varley	Central Models	488
4	Darren Sanson	Bury St Edmunds	475
5	William Mitcham	Bury Buggy Club	468
6	Scott Raynor	Mardave Models	437
7	Matthew Harrison	GEC Stychfields	388
8	Mark Mainey	Dowty Radio CMC	371
9	Andrew Langdon	Swindon Off Road	368
10	Hayden Spreadborough	Aylesbury	366
11	Chris Jenks	Trans A.m Electronics	363
12	Nick Cochrane	Private	352
13	Gary Cutler	West Mids Buggy Club	337
14	Alexander Page	Puma Racing	335

4WD Modified — Round 4

Driver	Car	Cells	Motor	Speedo	Servo	Tyres F	Tyres R	Pos
Gary Crowther-Green	CAT	MCC	Demon	Nosram	131 SH	CAT	CAT	9th
Chris Boakes	CAT	Matched KWB	Twister	Lazer	131 S	CAT	CAT	3rd
Bruce Turner	Mid	Parma SC	Parma 16D	Gold Star	131 SH	CAT	CAT	6th
Simon Tooley	Mid	SJT Sel	Reedy 15D	Lazer FO	131 SH	CAT	CAT	8th
Jason Green	CAT	Trinity SC	Trinity 17 Tr	Novac	131 SH	CAT	CAT	4th
Jim Davis	Yokomo	Overlander SCE	Revolution	Intronics	Multi Plex	Hot Laps	Hot Laps	1st
Steve Legg	Mid	SCR	Kyosho 18D	Nosram	131 SH	CAT	Option House	7th
Mike Stevenson	CAT	SCE	Reedy Whizzo Turbo Nutter	Gold Speed Master	131 SH	Mini Spike CAT	Mini Spike CAT	5th
Mark Chaplin	Mid 4	SCR	Reedy Red Dot	Lazer FO	131 SH	Mini Spike CAT	Mini Spike CAT	2nd
Andrew Langden	CAT	Nosram	MG 16T	Nosram Illiminator	131 SH	CAT	CAT	10th

2WD Modified — Round 6

Driver	Car	Cells	Motor	Speedo	Servo	Tyres F	Tyres R	Pos
Oliver Carnelly	RC10	Overlander SCR	Reedy Gold Dot	Demon	S131 S	CAT	Option House	7th
Jason Varley	RC10	Prime Time	Rev 21D	Novac	131 S	Proline	Hot Laps	1st
Rory Cull	RC10	Nosram	Reedy Gold Dot	Demon	131 SH	CAT	Hot Laps	4th
Jonathon Howells	Ultima	Overlander SCE	MG 15D	Intronics	132 H	Dynamite	Option House	5th
John Broadhurst	RC10	Sanyo SCR	MG 16T	Pro King	131 SH	Dynamite	CAT	10th
Johnathon Tucker	RC10	John Speed	Reedy Silver	Nosram	KO FET	Proline	Hot Laps	6th
Steve Jones	Mardave Meteor	Tamiya 1.7	Rev Brutus	Demon Pro King	JR 4001	CAT	CAT	2nd
Scott Raynor	Mardave Meteor	Overlander SCR	Trinity	Nosram	131 SH	Mardave	Mardave	9th
Mike Doughty	Mardave Meteor	Overlander SCR	Twister	Lazer	131 SH	Mardave	Mardave	8th

15	Alan Blakeman	Private	328	38	Martin Webster	Rotherham Buggy Club	149
16	David Lowe	Donisthorpe	318	39	Andrew Griffiths	Welsh	141
17	Marc Neale	Private	316	40	Marcus Payton	Private	139
18	Richard Heath	TNT Publicity	313	41	Pete Jenks	Private	135
18	Mick Doughty	Private	313	41	Adrian Bird	Worcester Model Car	135
20	Steve Chapman	Private	277	43	John Illiffe	Private	129
21	Keith Belson	Trans Am Electronics	274	44	Adrian Cox	Private	117
22	Steve West	MGN	265	45	Tim Shipton	Swindon Off Road	116
23	Marcus Taylor	Team FTD	257	46	Richard Wildboar	Dudley Buggy Club	113
24	Dave Pugh	RCP	243	47	Paul Wright	Shrewsbury SRCC	109
25	Wes Rayner	Mardave Models	241	48	Antony East	Private	106
26	Wayne Jones	Dudley Buggy Club	233	49	Ben Sturman	Racestore	99
27	Karl Prince	Bury Model Shop	199	49	Nick Daman	Medway Off Road Club	99
27	Carl Sambrook	Penn Models	199	51	Craig Drescher	Penn Models	98
29	Jim Davis	Team FTD	193	51	Bruce Turner	Private	98
30	Jason Green	Private	189	53	Steve Jones	Private	98
31	Mike Bridges	MGN	186	54	Chris Boakes	Private	97
32	Allan Sambrook	Penn Models	182	55	Brennan Ralls	Medway off Road	96
33	Greg Lane	Private	176	55	James Barker	Private	96
34	Nick Marson	MGN	172	57	Nathan Ralls	Medway Off Road Club	95
35	Simon Evans	Private	164	57	Jonathon Tucker	Private	95
36	Nick Elliott	Private	159	59	Wayne Darwell	Medway Off Road Club	93
37	Duncan Wood	Dowty Radio CMC	156	59	John Broadhurst	Kidderminster MCC	93

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Kyosho Indiana 4x4	RRC 17	Tamiya Hotshot II	RRC 45
Kyosho Integra	RRC 22	Tamiya Monster Beetle	RRC 42
Kyosho Progress	RRC 24	Tamiya Pajero	RRC 23
Kyosho Rocky 4WD	RRC 39	Tamiya Porsche 959	RRC 40
Kyosho Scorpion	RRC 12	Tamiya Striker	RRC 43
Kyosho Tomahawk	RRC 21	Tamiya Subaru Brat	RRC 18
Kyosho Toyota Hilur	RRC 17	Tamiya Superchamp	RRC 14
Kyosho Ultima	RRC 45	Tamiya Tamtech Cars	RRC 42
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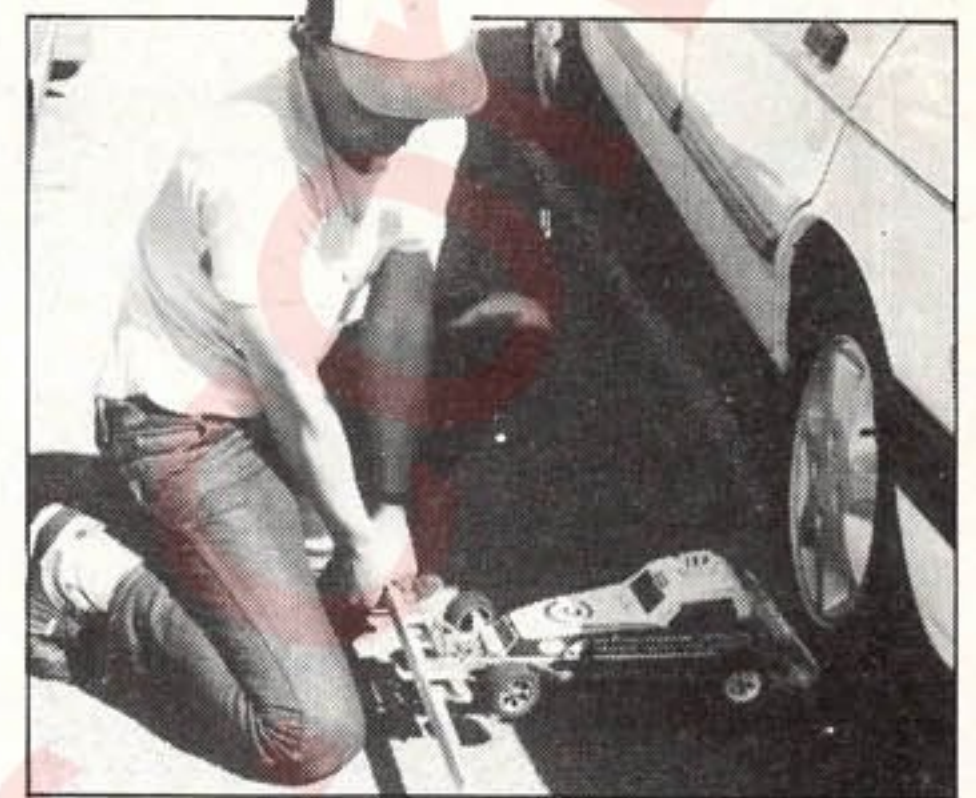
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STOCK AND OVAL

by Mike Smith



Malcolm Patterson, from Biggar in Scotland, has a novel way of taking out those unwanted twists in the Stocker's chassis, by mounting a Ford XR4x4 on a bracket plate and using a front twist bar you can make the chassis go where you want it to, the most expensive item in this natty little idea is of course the XR4x4.

It would appear from recent happenings that the two day EMSA meetings, are a none starter, the entry for the dress rehearsal of the way it is envisaged future World and European title meetings are to be run, resulted in the cancellation of the event which was scheduled for the weekend of July 1st and 2nd, at Lilford Park.

The basic idea behind the two day event is to allow more competitors the chance to compete, which sounds like a good idea.

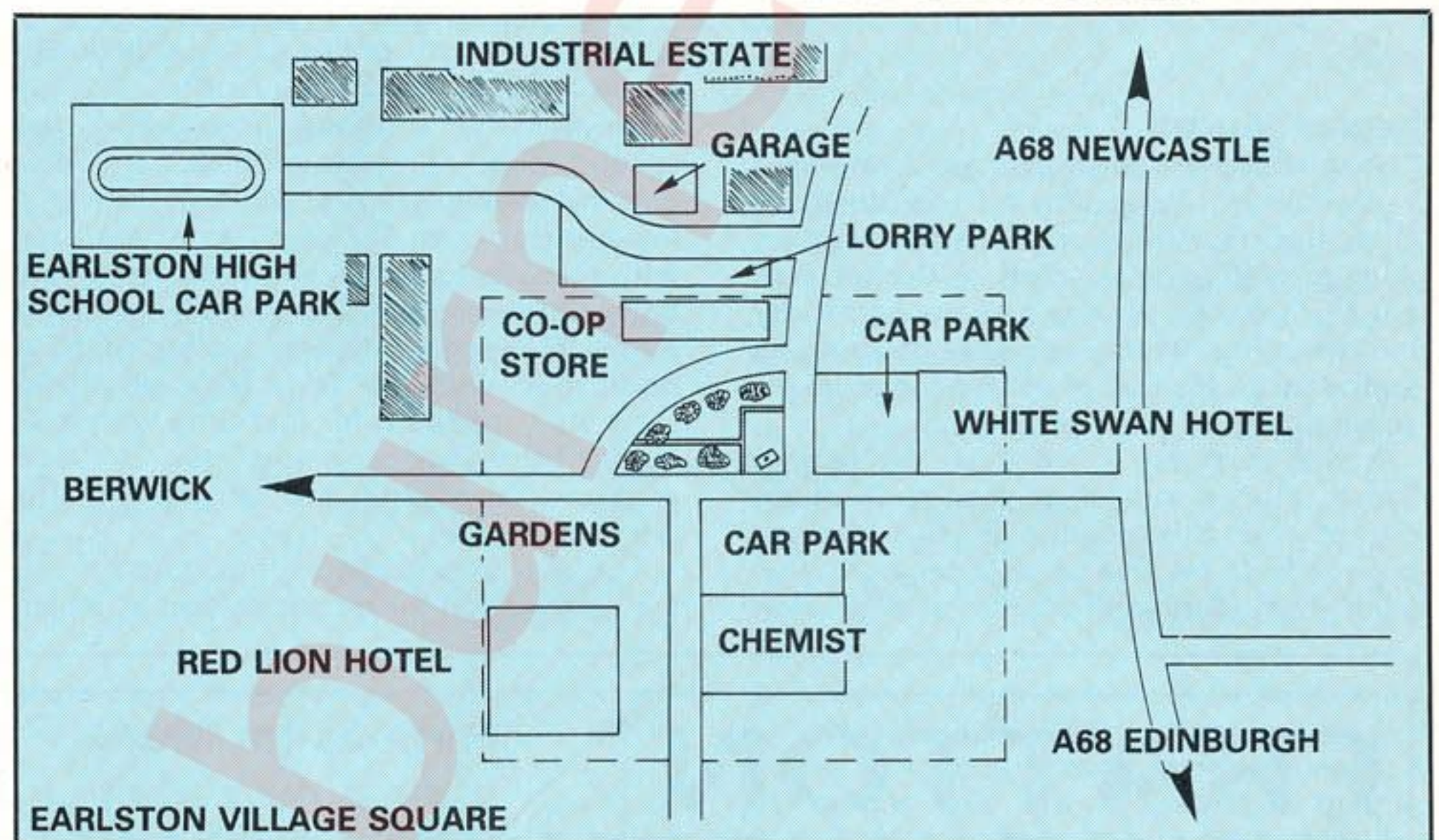
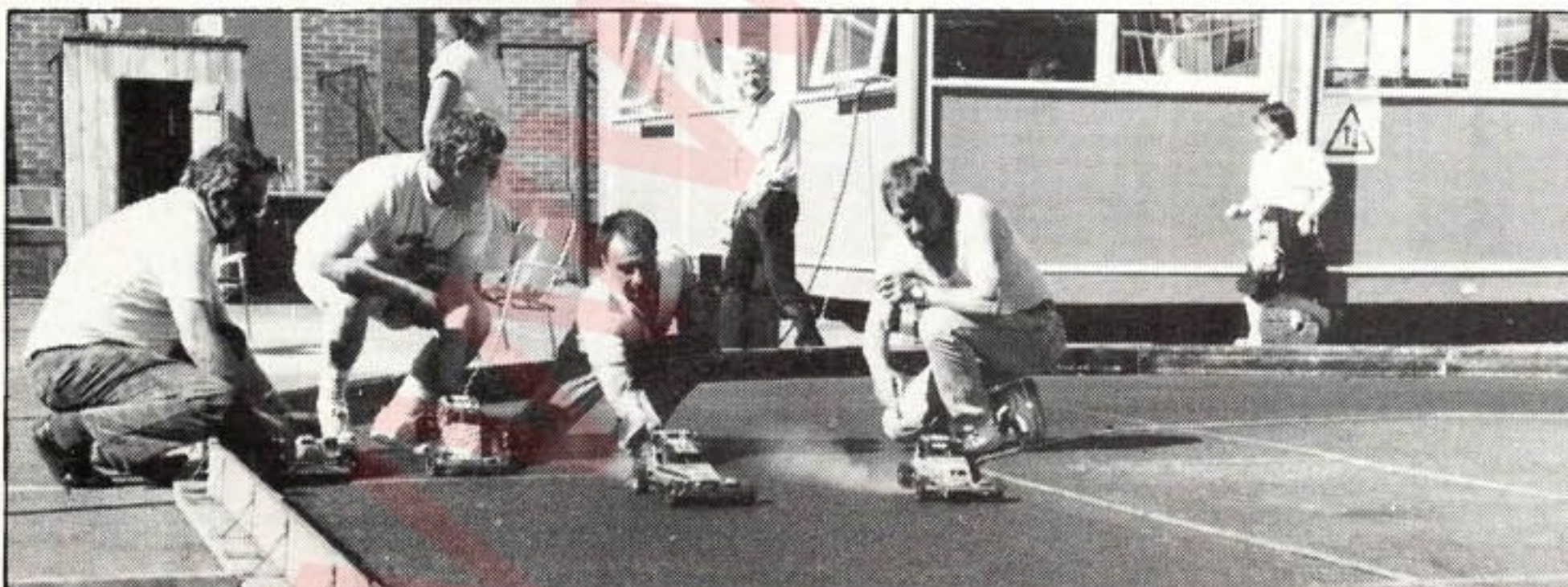
At present there is a limit of 84, this is governed by the six car race system, under this you are limited with time as to how many six car races you can fit into a 24 hour day, the answer is obvious you either increase the amount of cars raced at one time or you go into a two day event.

With the cancellation of the Lilford meeting, due to lack of entry, one may assume the need to increase the numbers or drivers to over 84 is hardly necessary, the problem with the two day Lilford meeting is that it was not the World or European finals so did not carry the clout needed to prove the point, the only way to try out the two day test is to make one of the two EMSA meetings a two day event.

The Politics Of It All

I get the feint impression that perhaps the politics of the sport are becoming more prominent than the racing, I get the very slight impression that perhaps something more than voicing a personal view, which should be encouraged, is being waged at the expense of common sense, in the days of the RSCA, we used to have a publication which used to debate topical events, we would get letters that would state a point and make you smile, occa-

The start of a race one can easily see the different reactions to the start horn, some drivers like to hold back, some like Steve Talbot as in this picture being released by Trevor Heasman have decided to go for it from the start.



North Of The Border

A new club for IC Stock Cars has been formed in Scotland, the club named the Border Model Car Racing Club is based at Earlston, on the High School car park, the man to contact is Bill Douglas; 64, Queensway, Earlston, Berwickshire (089 684 8831). The interest has been steadily growing from that part of the world and it is great to see a new club so far North, the club have arranged some dates for meetings which are:

July 10th, 31st, August 21st, September 11th and October 2nd, everyone will be made welcome and the meetings are to start at 1 pm, visiting drivers should contact Bill Douglas before travelling.

sionally you would get a suggestion to ban every 3.5 cc engine and run on rubber bands, which would also make you smile and embarrass the club to which the member who wrote the suggestion came from, unfortunately the odd letter would be published that was a real between the lines knife in the back bruiser, ie:

DEAR SECRETARY, (Dear self centred know it all)

WITH REFERENCE TO THE RECENT MEETING HOSTED BY YOUR EXCELLENT CLUB, (call that a club I've hit the wife with better) THE RACING WAS REALLY EXCELLENT (pity about the partially blind lap counter with arthritis in her fingers that only misses laps from visiting drivers) AND THE CIRCUIT SUPERB! (not bad for an off road circuit) I LOOK FORWARD TO YOUR CLUBS VISIT TO US PLANNED NEXT MONTH. (so that our members can push your members over the fence)

MAY I TAKE THIS OPPORTUNITY TO WISH YOU AND YOUR MEMBERS GOOD LUCK WHEN YOU HOST THE UNIVERSAL FINALS LATER IN THE YEAR. (we should have got that meeting! It was a fix, just because you have flush loos and a computer, well I hope it rains all day) IF YOU NEED HELP PLEASE ASK. (just do, then we can say you don't manage, he, he) REMEMBER WE ARE ALL IN THIS SPORT TOGETHER WITH THE SAME AIMS TO PROMOTE STOCK CAR RACING. (why don't you

and your creepy members take up javelin catching?)

LOOK FORWARD TO SEEING YOU IN THE NEAR FUTURE, (preferably graded properly and not with a superstar grading that you got fiddling the points or making the sandwiches)

YOURS TRULY,
A GRUMP (a proper club secretary)

It would be as well to realise that although this letter is complete fiction it perhaps illustrates an unfriendly attitude that certain clubs feel for others and that some prominent persons feel for other prominent persons, all of course total fiction as this sort of thing is not present in stock car circles, but if it were, then it may be as well to remember we are all in this together and if we can't have friendly rivalry we won't have a sport and those who think that they are bigger than the hobby should take a serious look at their motives!

Series Round 3

The third leg of the series round was held in Pendle on June 12th by the Northern Oval Racing Affiliation (NORA). Flaming June proved to be the case, as the sun was out in force, 41 drivers had booked in by mid morning, which was very pleasing as attendances for this Northern location are some times on the low side.

It was to prove a great day for racing, Steve Talbot was back on the circuit for apparently just this meeting, his new car was not ready so he was using a car borrowed from Tony Bicknall, the practice session

was causing concern as some drivers were finding it very difficult to obtain a frequency peg, it was the usual case of "can I have the peg after you?" "Sure thing I just want to try these five sets of tyres and re-bui'd my engine", so to make sure that everyone had a fair crack of the whip Alan Gratton the race organisor did a dummy run through the first set of heats to provide racing practice for all.

The first round of heats saw Steve Talbot, who during practice had been setting this unfamiliar car to his own style, set the pace with 41 laps, the Yorkshire drivers Tony and Bob Middleton were showing once again that they have what it takes by smashing their superiority on the days event with a first time score of Tony with 39 and Bob 38, another local driver Dave Stell managed a commendable 39 as did Tim Pole and Anthony Booth.

It was obvious by the end of the first round that you needed to score the magic four '0' to be in there with any chance, this was by no means an easy task, Trevor Heasman was struggling a little only finishing with 36 as was Shaun North.

Steve Talbot dropped three laps in the second round only obtaining 38, Tony Middleton equalled his first score of 39 whilst brother Bob with 37, Paul Dexter the man who manufactures the all off set front axle beams improved his first score by one with a fine 38, Sean North was feeling more at home also with 38, Tony Bicknall with a slow start made up for lost time with a 39 as did Terry Dickinson and Dave Stell and Anthony Booth split the tarmac with his best score of 40.

The third round of this four round meeting proved that the circuit at Pendle, which

is one of the portable types, was now providing the grip which it had lacked in the early part of the meeting, Trevor Heasman really got his act together in this round with a blistering score of 42. I once heard that the only good thing to come out of Yorkshire were the roads but Tony Middleton proved that Lancastrian saying wrong by tearing the tarmac with 41 laps, this was matched by Steve Talbot, Tony Bicknall managed the big four '0' with yet another Yorkshire man Pete Mason slipping in a 39 along with Bob Middleton.

The fourth and final round was as is usual the make or break round, some drivers are trying to make an improvement others just hanging on in there, Steve Talbot proving that it is the singer not the song with a last round score of 41 from his borrowed car, having said that the car owner Tony Bicknall, he's one hell of a song writer as he also titilated the tarmac with 41 laps, Derek Bird the seasoned campaigner from the Coventry club showed that life begins at forty with a last round score of 40, Sean North also managed 40 laps.

The four drivers to qualify through to the final were Tony and Bob Middleton, Steve Talbot and Tony Bicknall the scrap for the remaining two places would be fought out in the consolation ace between, Paul Dexter, Trevor Heasman, Dave Stell, Derek Bird, Sean North and Terry Dickinson, with the resulting outcome being that Paul Dexter and Sean North took the remaining final placings.

The final was as expected fast and furious, the oval was producing it's usual excitement, with the usual spill without the thrill to the driver, but great for the spec-

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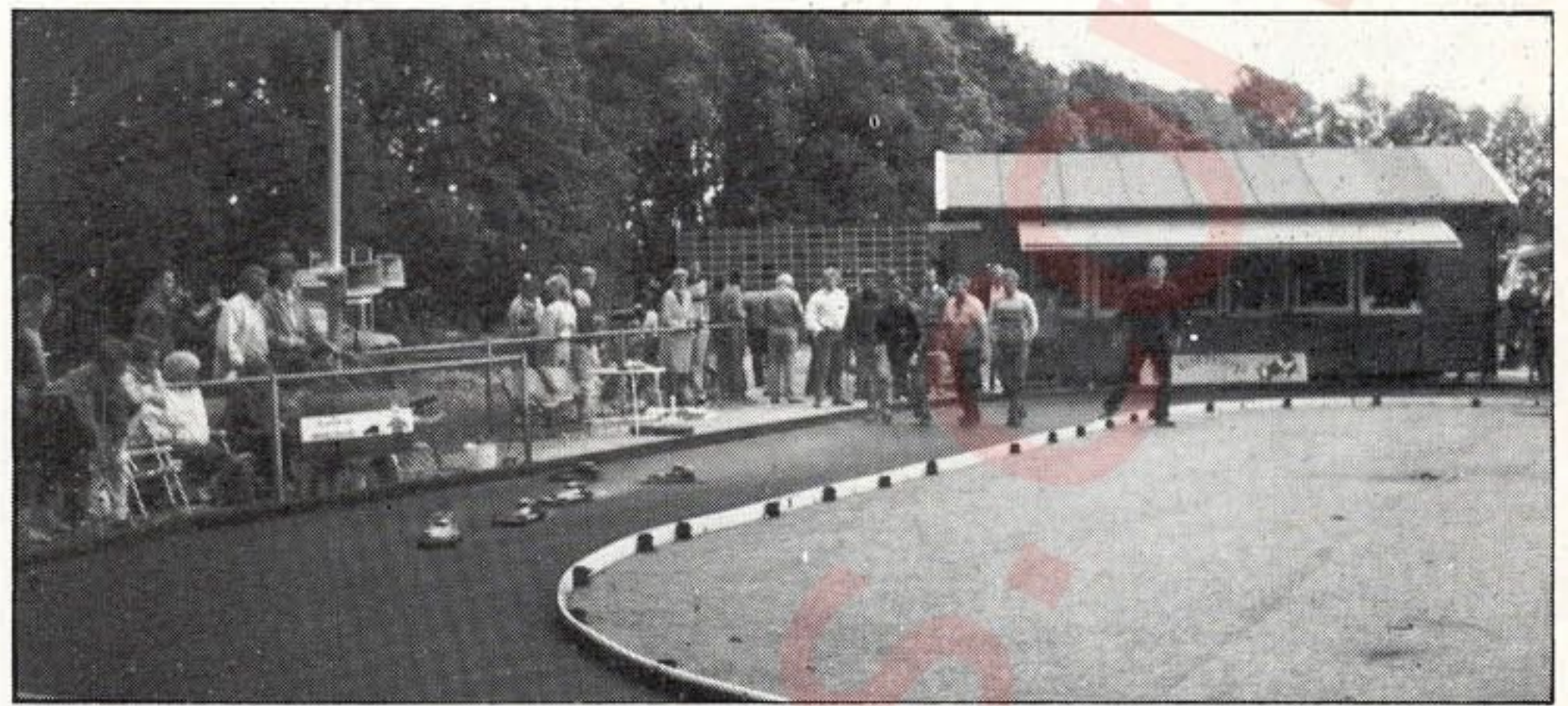
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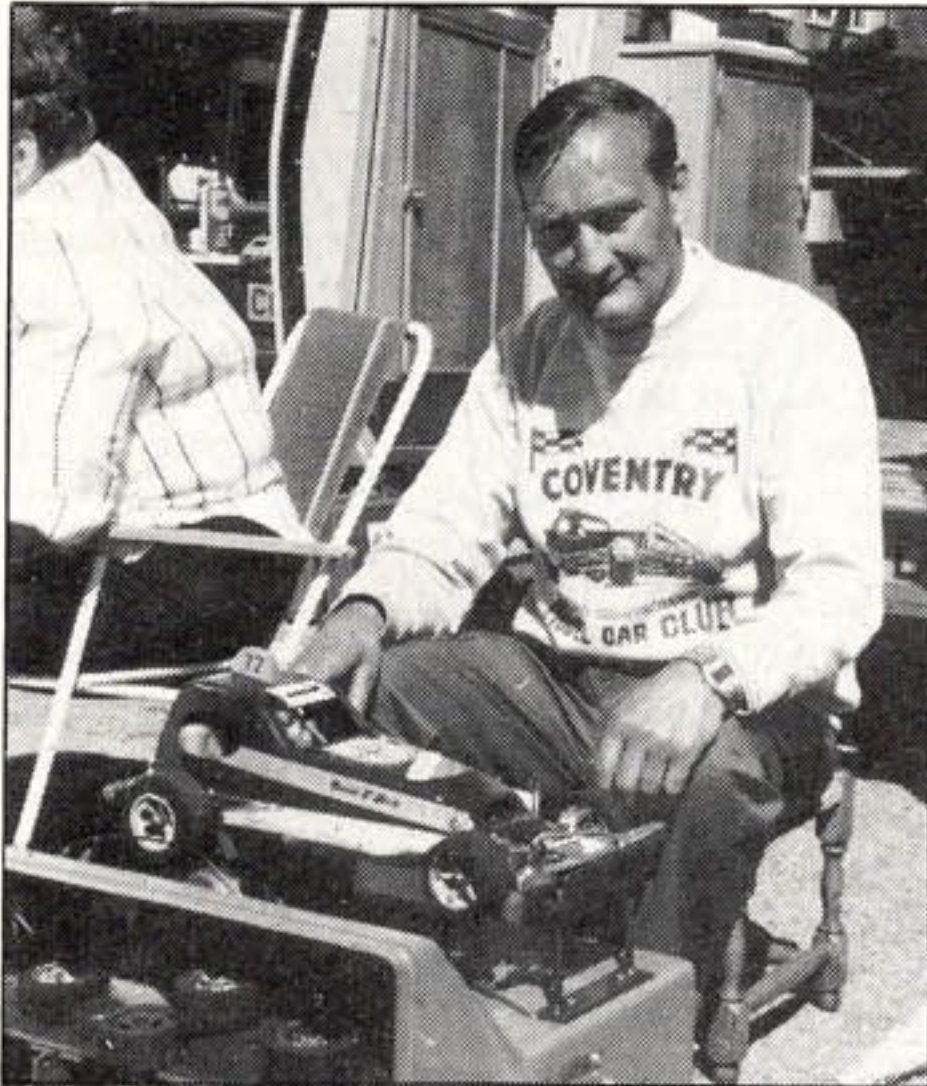
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tator, the Middleton brothers were flying around the oval like a couple of Harriers on their way to a Jump Jet Jamboree as were Sean North and Paul Dexter, Tony Bicknall had a nightmare missing the final completely due to a servo problem, Steve Talbot soon gained a comfortable lead and proceeded to take the dog for a walk after that he settled down to his race winning rhythm the blues with a shattering turn of speed, hottly persued by his brother Bob panting down his neck, he wanted the lead, Sean and Paul not giving an inch and always in contention were making sure that any slip of judgement would be greatly excepted, it was a long hot five minutes, the strain was apparent at last the hooter



View of track and clubhouse.



Derek Bird from the Coventry club is one of the best known drivers and must be one of the most travelled enthusiast's in the country with frequent visits over seas to race his Stocker, Derek proves also that you don't have to be young just young at heart to be one of the country's top drivers.

sounded and the race was over.

The winner with 54 laps was Steve Talbot, second with 53 laps Tony Middleton, third with 52 was Bob Middleton, fourth with 49 Paul Dexter, fifth Sean North with 48 and sixth was the none runner of Tony

Bicknall.

It would appear that Mardave have had a change of heart about the new wider stub axles for the Stockmaster, as reported in the last issue, it was planned to introduce a new stub axle that would bring the front end of the stock car in line with the wider rear, the change is that Mardave have now decided to produce a wider front axle beam instead and leave the stub axle as it is, this will make things a little simpler for the drivers who use the standard stub axle with an off set front beam.

Report on 1988 European Championships — Oatmarsum, Holland, May 29th

Oatmarsum. But where *is* Oatmarsum? A long study of the map had failed to reveal the whereabouts of the location for this years European Championship in Holland and it wasn't until Chris Heywood came round for one of our routine Stock-car maintenance sessions and suggested I use the index that things really started to move.

"I was just about to do that", I suggested, feeling rather stupid and trying to hide my red face, Chris just gave me a knowing look and took over the planning of the trip from then on.

Oatmarsum, it turns out, is a rather small border town in North East Holland and

when you finally arrive, after over 600 miles travelling in our case, you begin to wonder whether this pretty little place is really playing host to a major Stock-car Championship after all.

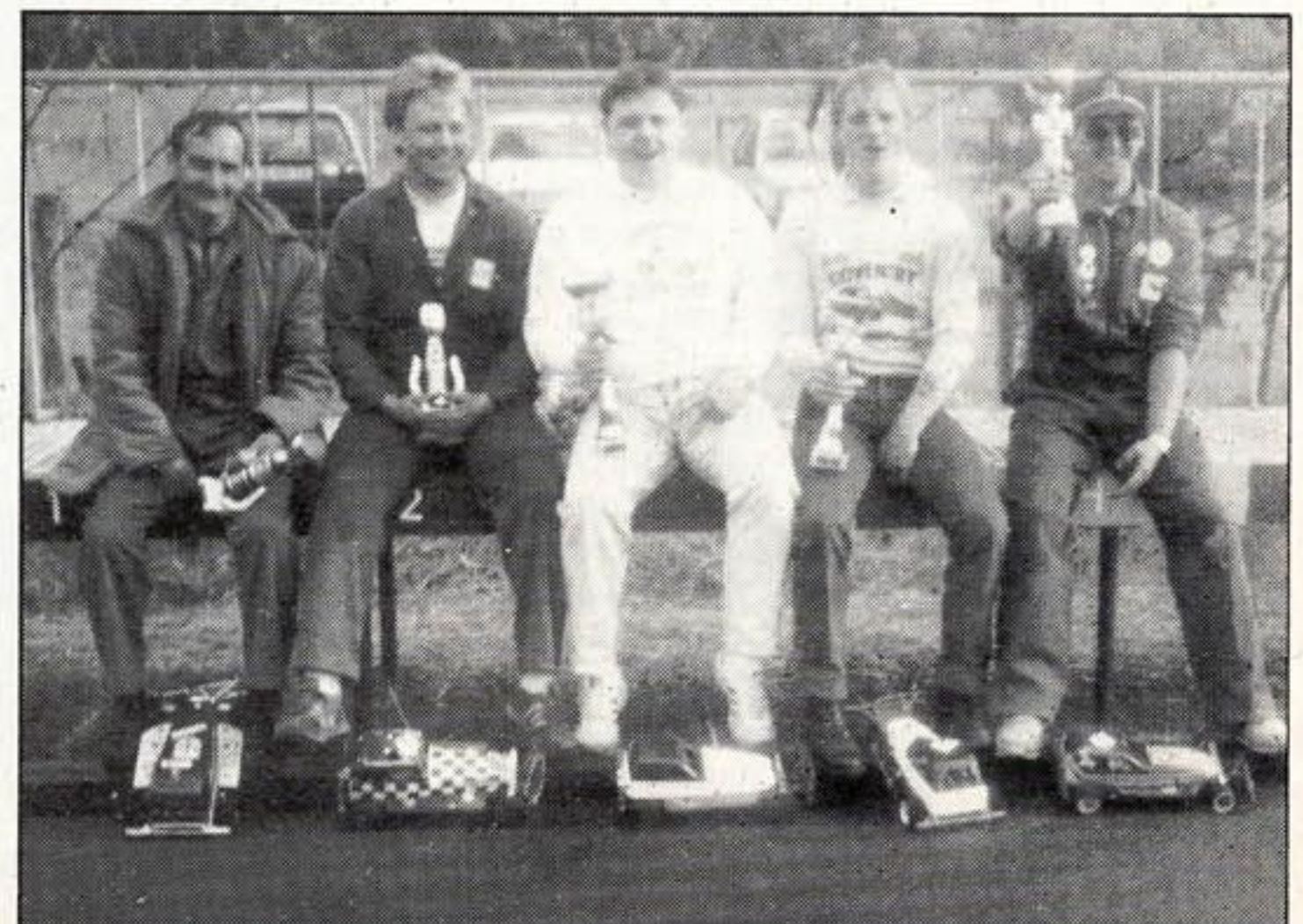
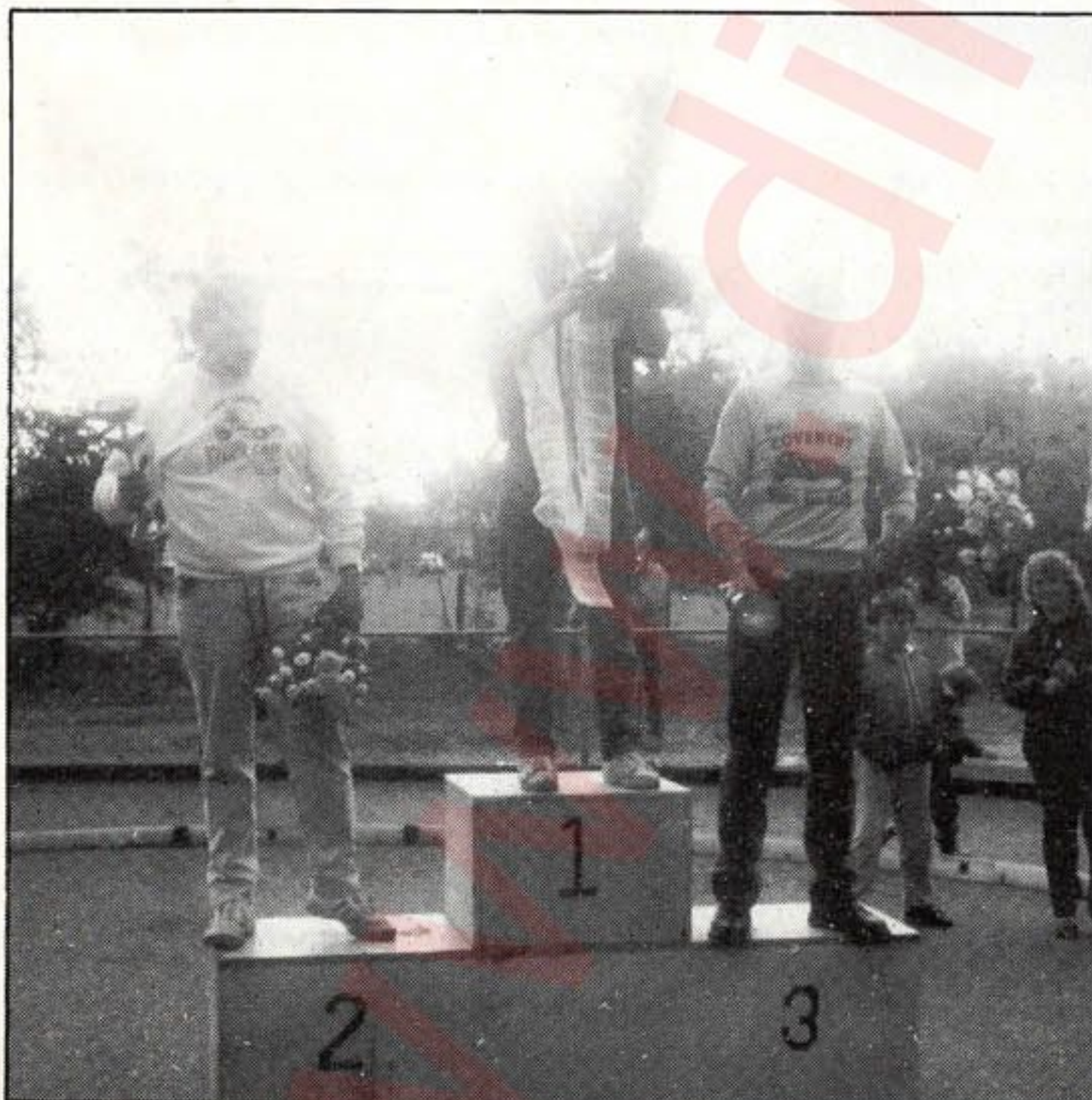
In the event, it isn't really since the track is actually about two miles out of town and is somewhat off the beaten track. We arrived at about 10.30 pm in pitch darkness and following the instructions issued by the 'Bloeddrivers' club, headed out of town towards Oldenzaal.

Now the thing to remember about written instructions is that when you get them, you should always read them properly and it was only when I began to despair at finding the track and insisted on stopping to recap, that I discovered that no-one had in fact read them and that the two miles we had travelled out of town was spot on, but only by complete accident. I had pulled up outside the only building for miles, the Hotel 'Zomerlust' and when we looked across the road, we saw the signs for the club pointing down the 'Bloeddriverslaan' (the street of the Young-at-heart drivers — they sure have got things organised over there!). Natural curiosity overcame our desire for an immediate visit to the hotel and we drove on to the track.

Like all Dutch ovals, this one is permanent and set in its own grounds, with large

Left, Kev Straw (2nd), Eddy Smeets (1st) and Marc Joul (3rd).

Below, English Trophy Winners. Left to right, Derek Bird (7th), Tony Middleton (8th), Kev Straw (2nd), Marc Joul (3rd), Terry Dickinson (5th) and Ken Cornish (12th (not in picture)).





This rather nice car was prepared by Steve Bell from the Chessington Club, Steve is well known for his excellent turned out body work. This Stocker really Pumps Iron.

club house and pits facilities, a drivers rostrum, running water on tap and of course, camping facilities at the rear. Under the glare of the cars headlights, the track looked as smooth as glass and shone with its coating of oil. We wandered around the site for a while and then decided to set up camp for the night.

At this point, however, things started to go wrong. When we unpacked the tent, we discovered that it had apparently been left damp following our last excursion to Holland in September and was now full of holes. John Hodson, whose tent it 'was', eventually saw the funny side of the affair and we all had a laugh about it as we prepared to spend the night in the Hotel.

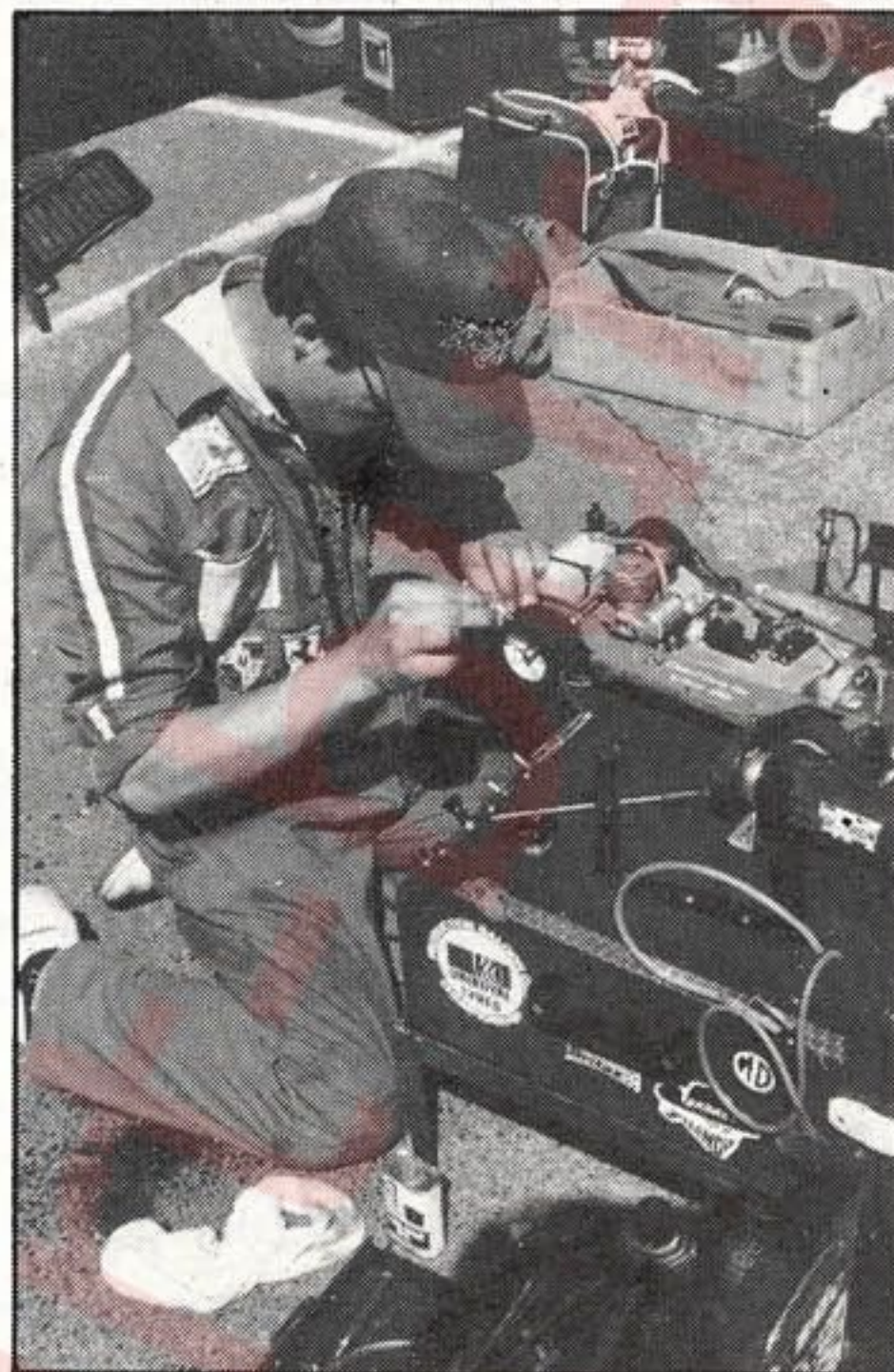
Next day, Wednesday, we had the track to ourselves and all got in a full days very useful practice under the watchful eye of Bob Harneslag, the NOMAC secretary, who timed us all and kindly provided a waterproof covering for our tent.

By Thursday, the other drivers were arriving in droves and we were glad to be able to put our feet up and watch the opposition practice. Some of the English drivers were fairly flying and my doubts about our ability to bring any trophies back without the likes of Steve Talbot, Roy Crowson, Paul Dudley, etc. were beginning to dispel. In fact Trevor Heasman, the reigning Champion, was without doubt the quickest around the track, closely followed by the Middleton brothers from Yorkshire with Coventry drivers Marc Joul and Derek Bird, also looking very useful.

Sunday dawned bright and clear and scrutineering went fairly smoothly in the morning sunshine, with only a few drivers having to modify their cars to comply with EMSA rules and then it was on to the drivers briefing, a speech by the mayor of Oatmarsum and the ceremonial raising of the flags whilst Trevor Heasman drove his car slowly around the track. All the preliminaries over with, the heats began in earnest with a large crowd gathering and the fine weather persisting the early heats were, infact, surprisingly slow affairs with only Marc Joul and Steffen Morrees topping the magic 40 in the first five races. Even reigning World Champion Eddy Smeets could only manage a 39, though his car had left the track at one point and returned to the pits all by itself. Perhaps it was trying to tell Eddy something!

It was no suprise to find that Trev Heasman had forged ahead after the first round

Sean North unaware of the camera as he repairs one of his tyres, 'You can't get quicker than a quick fit fitter'.



The Finalists from left to right; Tony Bicknall, Sean North, Bob Middleton, Steve Talbot, Tony Moddleton, Paul Dexter.



with an amazing 46, though this was to prove his last real success of the day. More of that later. Ronald Mosman, ex-Dutch Champion scorched around to a 45 in this round with Ton Schoernmapers, another ex-Champion, on 43 and Paul Culverwell, Janig Var de Maulen, Jean-Pierre Steegan of Belgium and Sander Poels all managing 42's.

In the second round, Coventry's Marc Joul led the way together with Ronald Mosman on 44's, Schoenmapers again moving very quickly to notch up a 43 and a levy of drivers on 42 consisting of Steffan Moorner, Kees Brock, Tony Middleton, Sander Poels and Wim Robler. Round three was for some reason disappointingly slow with only Mike Powell — 42, Richard Englersen — 41 and Ken Cornish — 41, putting up good scores. No doubt most of the quicker men had already done enough and were saving their cars.

The heats over with, the organisers settled down to work out the top 24 Qualifiers and those drivers who were sure they hadn't made it began to pack up.

It was at this point, however that one of those things which make this game so delightfully unpredictable and which no-one can make allowances for suddenly decided to intervene — It rained! Its coming was to completely transform the Championship and remove some very big names indeed.

The most unfortunate of these was without doubt the reigning Champion. For some inexplicable reason Trevor got his tyres completely wrong and we all witnessed the sad sight of the 119 car pirouetting on the corners. Despite a flying pit stop to change rubber, the problem could not be cured and Trevor was out with just seven laps in the first Quarter Final. This was a race dominated by Ronald Mosman; the man who had scored more laps in his heats than anyone else, clocked 42 on a very wet track indeed.

As the track began to dry, Marc Joul put on a brilliant display of controlled driving to win the second Quarter with a 41, then Ken Cornish had everyone cheering by winning the third with a superb 45. The final Quarter took place on a greasy rather than wet track and was dominated by World Champion Eddy Smeets, now finding form and scoring a 46. This was my Quarter and I jsut scraped through to the Semi's with a 39.

The line up for the Semi Finals included 6 Englishmen, 5 Dutchmen and 1 Belgian, the first comprising Derek Bird, Richard Engbersen, Ben Harbers, Ken Cornish, Marc Joul and Eddy Smeets and was led virtually from start to finish by Smeets who eventually clocked up 53 laps in the five minutes. Marc Joul, still driving very coolly and calmly was second on 52 and the other qualifier Richard Engbersen had scored 50.

The second Semi was made up of Tony Middleton, Wim Robben, Ton Schoermakers, Me (Terry Dickinson) Ronald Mosman and Yorkshireman Kevin Straw, who was really beginning to fly.

It turned out to be an easy win for Schoermakers, with the same score as Smeets — 53. Kevin was a superb second on 51 and I gave myself the biggest shock of my life by qualifying for the Final with a 49. True, it was the lowest qualifying score, but I didn't care, I was in! Commiserations at this point to both Tony Middleton and Ronald Mosman who both had mechanical difficulties and I must mention also two people who selflessly offered me tyres and an engine during the day — Trevor Tennant gave me a pair of expensive MRC's to try for the Quarters and Tony Middletons first action at finding himself out of the running was to rush over and offer me his engine for the final. Thanks boys, what a great sport this is!

After the required frequency check and waving to the crowds when introduced, we were put on three minutes for the final. I was having serious doubts about tyres, so I was first to the track to get a few laps practice (all legal of course) but the car seemed OK. One by one, the drivers came to the rostrum, the bell sounded and we were holding for the start.

Miraculously, I managed a flyer whilst the others tangled and led for about four laps, but I was regretting the decision not to use Tony's engine as I could see the others gaining on me. Kevin was the first to slip by followed by Marc, then I effectively put paid to any chances I had by hitting the boards, as that dubious tyre chunked. With the car now becoming a real handful, I could only cruise round and watch the others go past me again and again!

Meanwhile, at the front Eddy was gradually overhauling Kevin and Mark and a

great cheer went up as he finally snatched the lead. Richard Englesen meanwhile had promoted me to fifth when mechanical problems struck after 17 laps and the order to the flag remained Eddy, Kevin, Marc, Ton, with me a long way back and Richard sixth.

Postscript

It was a wonderful Championship for me, the best I've ever done, but the real congratulations go yet again to Eddy Smeets, who now holds World, European and Dutch titles and to Kevin Straw who flew the flag for the North and Marc Joul who did the same for the Midlands.

Well done, also the Oatmarsum club whose inexperience at holding major championships showed at times, but was outweighed by the enthusiasm, hospitality and their sincere desire that everything should go well.

I hate to end on a sour note but feel I must mention the fact that only 22 English drivers saw fit to make the trip to Holland. I only hope that the Dutch will bring a larger contingent with them in September as its vital to success of these Championships that drivers do travel. Those that did go, however, all did well in their way and congratulations go to all of them.

Results

1	Eddy Smeets	Belgium	55
2	Kevin Straw	YMSCC	53
3	Marc Joul	Coventry	52
4	Ton Schoermakers	Holland	50
5	Terry Dickinson	NORA	46
6	Richard Englesen	Holland	17

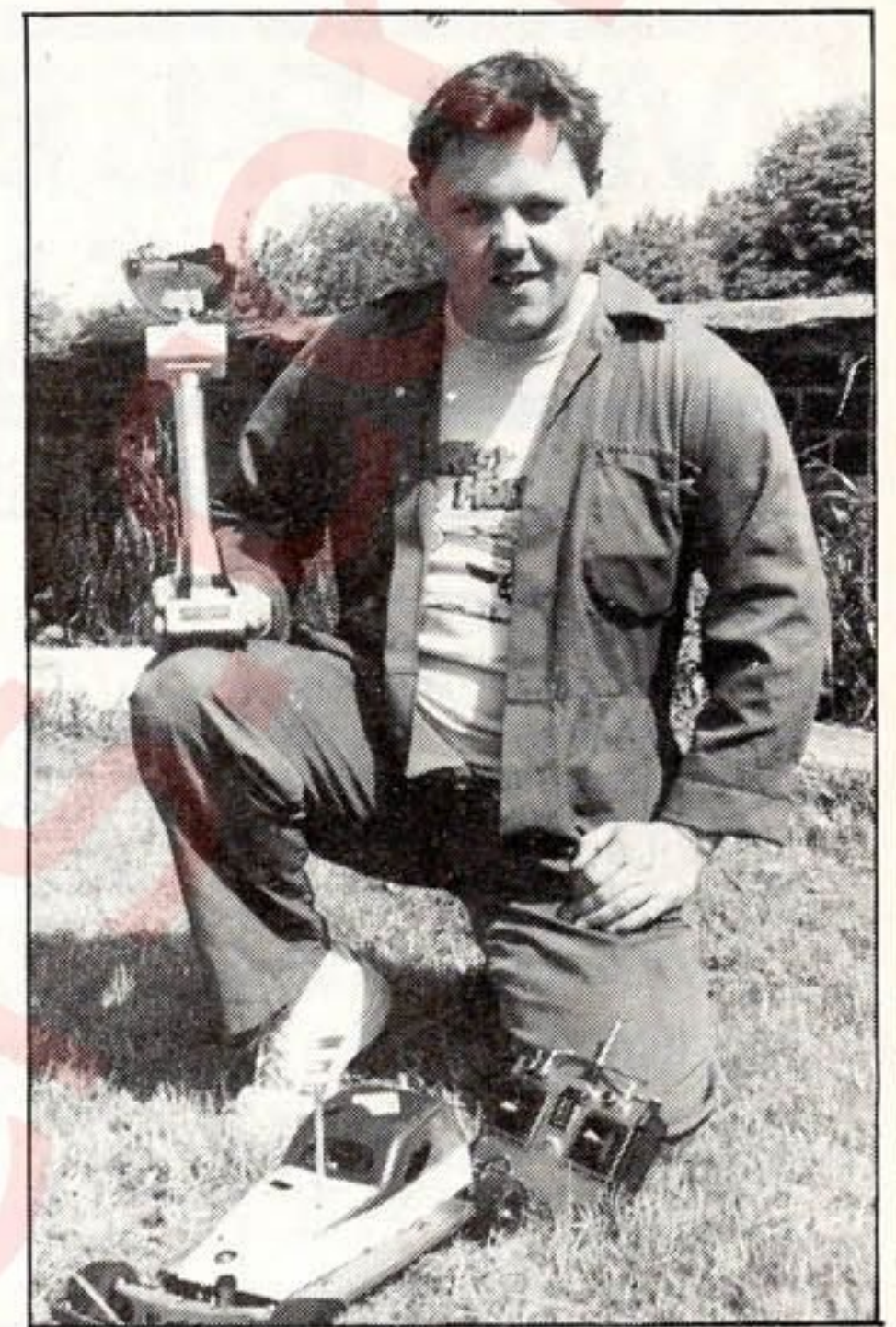
Other English Trophy Winners

Derek Bird	Coventry	7th
Tony Middleton	YMSCC	8th
Ken Cornish	Lilford	12t

Other English Qualifiers

Paul Culverwell
Trevor Heasman
Mike Powell
Lee Bishop

Not the most attractive car but very useful on the large European ovals, as they say in engineering terms 'simple is efficient' then this must be efficient.



Kevin Straw the Straw that broke the Camels back and brought a cheer and a great deal of credibility to his home club, the YMSCC based in Pontefract.

The Final Straw

The European Championships in Holland this year saw, as was expected, a fair representation of British drivers. In the final placings, Terry Dickinson (5th), Marc Joule (3rd) and Kevin Straw (2nd), whilst Derek Bird, Tony Middleton and Ken Cornish came 7th, 8th and 12th, but one name may not be as familiar as the others and that is Kevin Straw, who was not only in the final but was top Britton by taking second place.

Who is this relative newcomer to the sport?

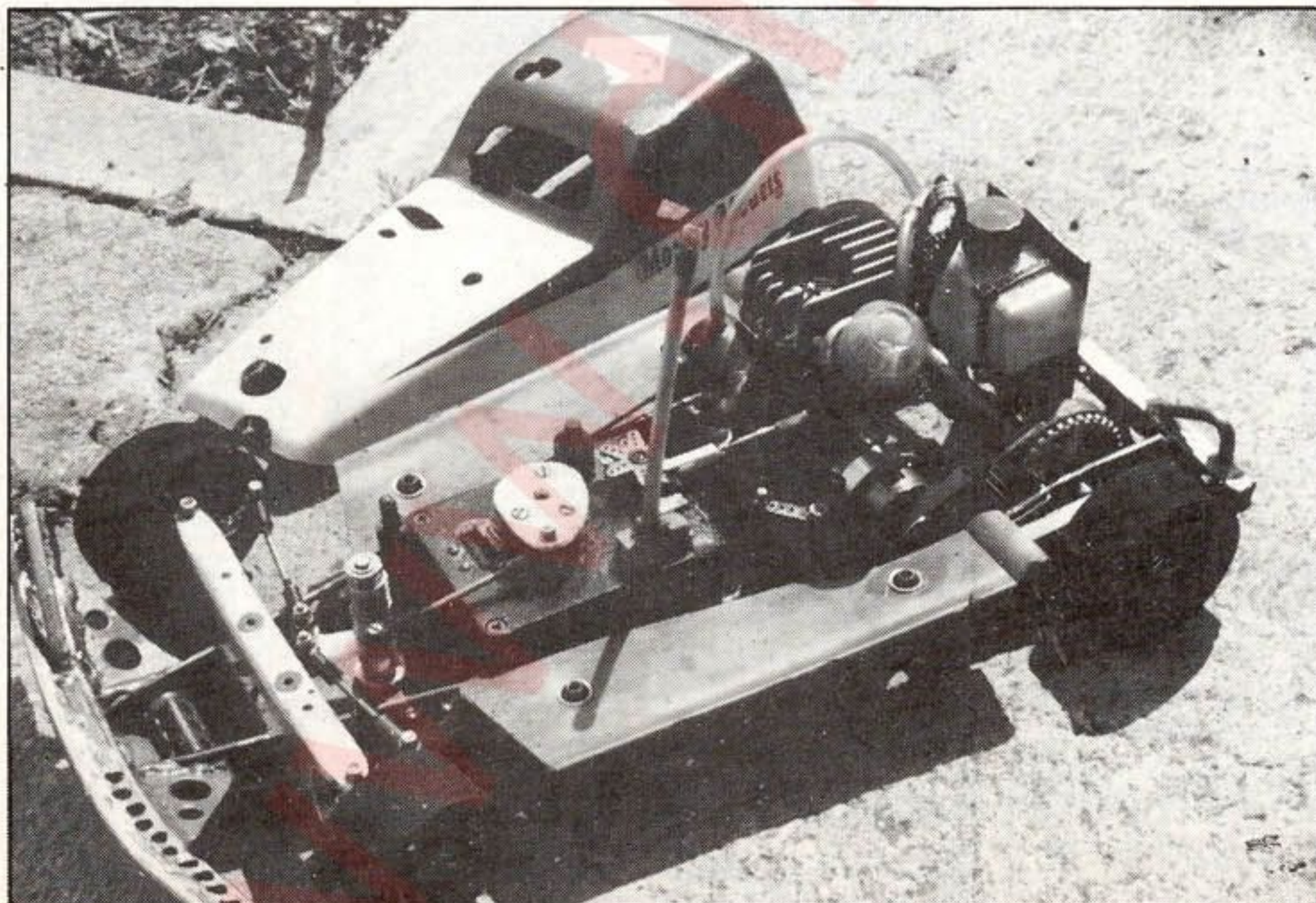
Kevin Straw is a 28 year old moulding machine operator from Yorkshire, he is a prominent member of the Yorkshire Model Stock Car Club based in Pontefract, this is his third full season of racing so as you can see is still very much a newcomer.

Kevin was a keen fisherman before he fell hook line and sinker for model stock car racing, he started with a Mk. 2 Mardave but with help from fellow club member, Tony Middleton, scratch built a car, the engine he used in Holland was an OS 21 bought from Trevor Heasman.

The car raced at the European finals had 3 deg of castor on the front beam axle, a Puma servo saver and ballraced Futaba 132S servos, the clutch was cork lined with steel shoes and the gearing was a 7 tooth clutch drum to a 36 tooth rear drive pulley.

Kevin makes up his own fuel from a mixture of 8% nitro, 14% castor and 78% methanol. The tyres used during the final were, on the rear Ass green on the outside and Ass yellow on the inner, up front was a Jap on the outer and Ass 1221 outer, Delta 316 inner, these tyres were used on the much larger Dutch oval.

Kevin had the ambition to make it to the last 24, when he had achieved that aim his nerves vanished and everything after was a big bonus, he has never won a final either home or abroad, but plenty of second places, he was very pleased with the second placing in the Europeans, so was the home club and so are we.



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MARKET PLACE



Parma Products

Once again Parma have lots to look at this month. First two bumper packs, the first is for the Thundershot or Super Sabre and is made from Kydex, a very durable plastic that will take all the punishment you can dish out. A rear bumper is also provided, both front and rear use existing mounting points. The second pack is for the RC-10. This is also constructed in Kydex and comprises of side wings to take those sideswipes. Also shown is a new front wing for the RC-10 or Optima and the new Kydex bumper for the Grasshopper or Hornet.

Loads of decals, yes even Parma's decal range increases with sponsor, concours the general decal sheets.

New saddle pack battery kits are also now available. The kits come ready attached, all you have to do is wire them together with the braid and wire supplied.

New wheels and tyres from Parma this month include angle spikes to give that extra grip in wet or loose conditions, the angle spikes fit Tamiya and Kyosho wheels. Finally adjustable track wheels and foam tyres allow you to turn your off road car into a circuit car at a stroke.

All the above items are available from your nearest Parma dealer

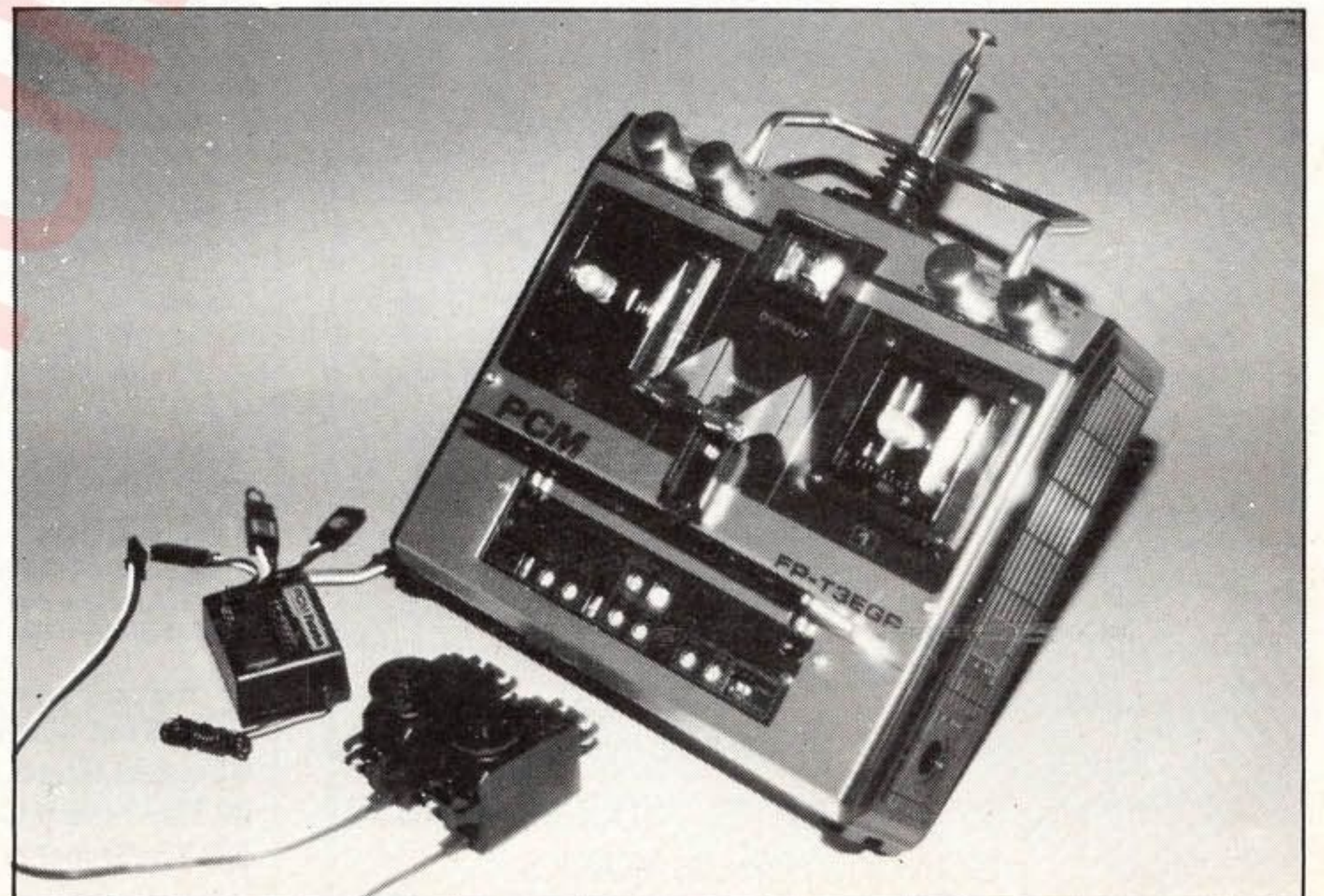
Futaba FP-3EGP PCM

New from Futaba comes the FP-3EGP PCM. This three channel PMC transmitter has a one chip microputer that minimises the effect of noise and dead points. The 3 EGP is obviously based on the 3 EGX but with added refinements such as shielded adjustment knobs, adjustment points are now more easily accessible, situated in front of the case and are all shielded against accidental adjustment. Features of the new 3EGP are as follows; Steering rates, steering dual rates, steering exponential, steering and throttle high and low ATV, servo reversing on all channels, ATL trimmer and



probably one of the most important features on the transmitter, a DSC or direct servo controller jack socket. This allows you to set your car up by direct hook up allowing it to be done track side and causing no interference. This should be a feature on all transmitters, well done Futaba.

The FP-3EGP is available from all Futaba dealers.



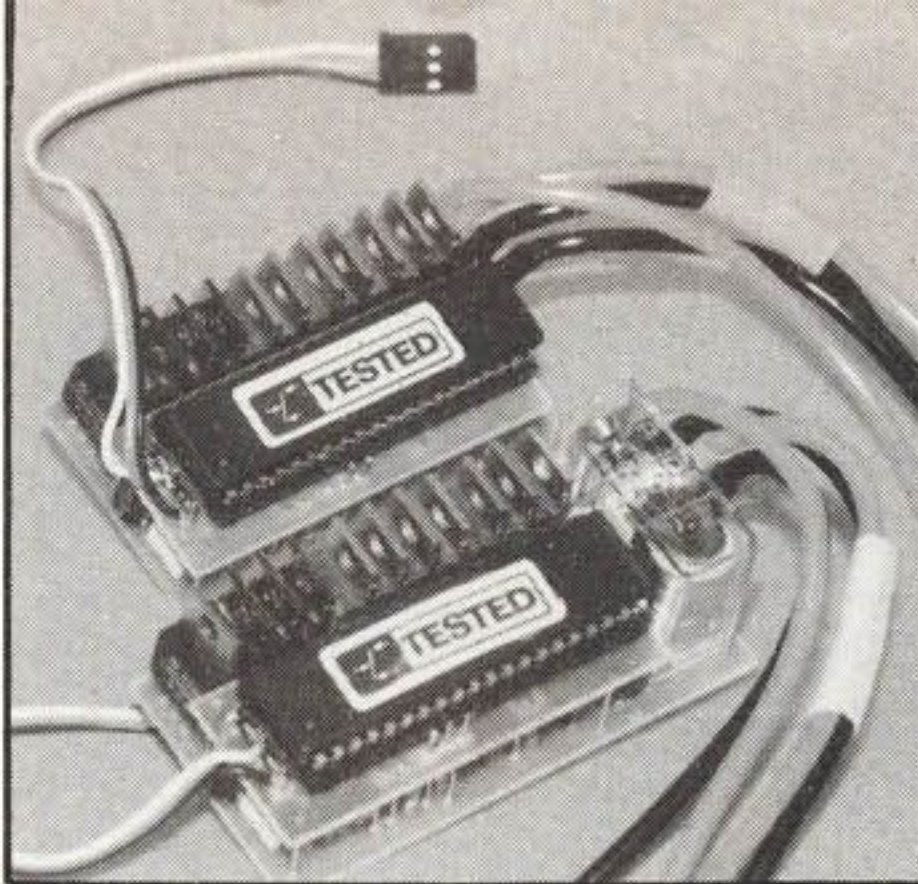


Schumacher G900 SM Power MOS International

This unit has been designed with five power mosfets, their combined maximum rating is 500 amps, the typical on resistance is 0.008 Ohms. Two Darlington power transistors provide a high degree of braking without locking up the rear wheels. The heart of the speed controller is built around the very latest surface mount techniques, offering the same performance whilst being a fraction of the size and weight of the older controllers.

Dimensions; L = 40 mm; W = 30 mm; H = 28 mm.

Schumacher are also producing another range of speed controllers, the top of the range are these two, new, revolutionary computerised speed controllers, the CAS 1 and CAS 2. Both controllers use the latest microcomputer technology to achieve a first, an intelligent speed controller that can be used with any transmitter without adjustment. The CAS range of controllers



have been developed over a long period to the highest standards.

The following features are found on the CAS 1:

Turbo start, used to give full power at the start of a race. Automatic adjustment, neutral and full power are automatically adjusted to match any transmitter. High power adjustment, seven mosfets are used to give a rating of 600 amps, with a low resistance of 0.006 Ohms.

Failsafe, the microcomputer continuously monitors the input signal and the nicad voltage. If the input signal is below the values expected or the nicad voltage drops below 4.5 volts approx, the motor drive is removed. Voltage regulator, a low loss 1.5 Amp regulator is used to power the receiver.

The CAS 2 has the same spec but is also fitted with Turbo reverse.

Available from Schumacher agents everywhere.

CRP

Amongst many new products from CRP this month, space only permits the use of some of them, are these new chargers.

The Auto Quick charger and motor tester comes complete with adjustable current charging from one to five and a half amps and features electronic timer, ammeter, voltmeter and motor tester.

Digital Challenger uses a pulsed charging current and has a bi-colour light emitting diode that flashes red when fast charging and green when in the trickle charge mode. The Challenger has a large liquid crystal display that shows clearly the following data.

Power source voltage/nicad battery pack voltage.

Charging current in Amps — fast and trickle.

Battery capacity — MAH.

Low battery indicator if source supply is less than 10.5 volts.

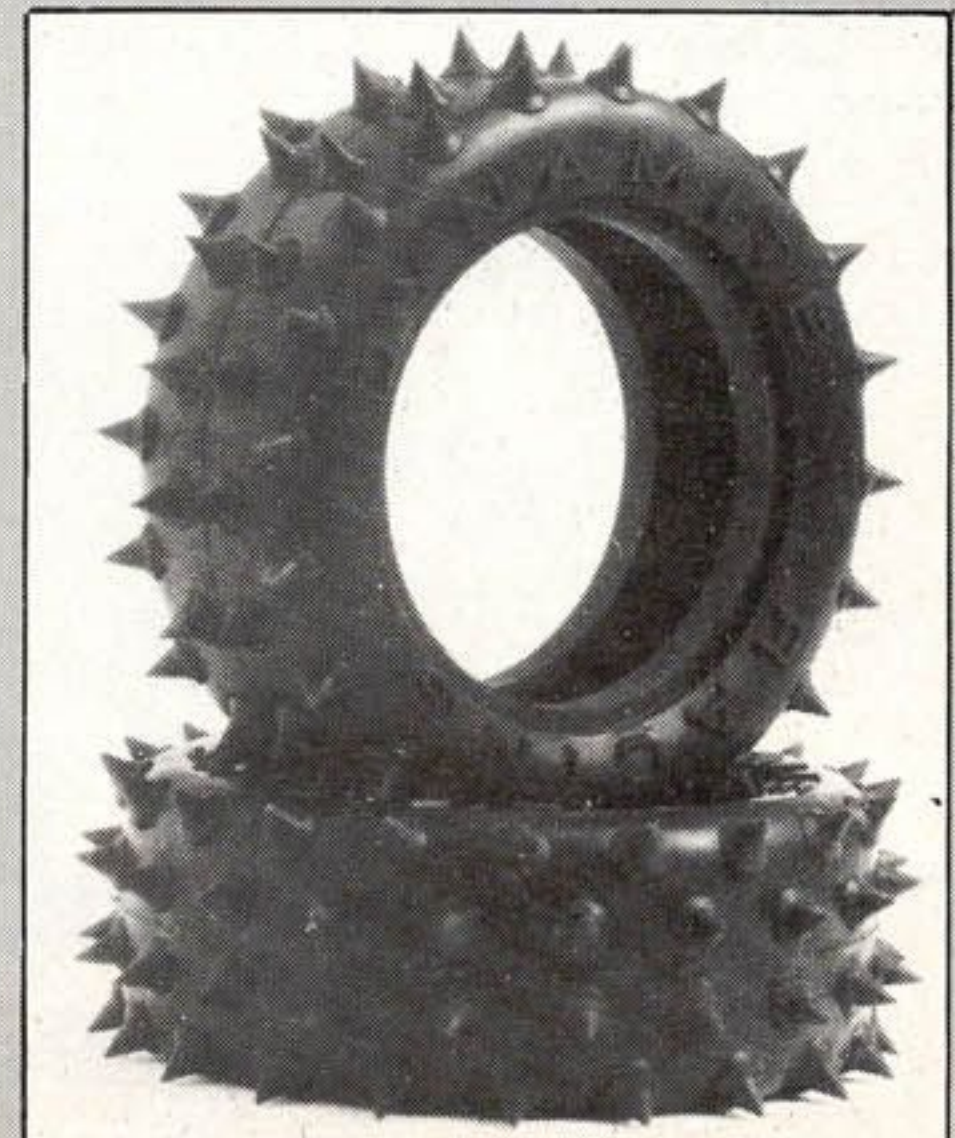
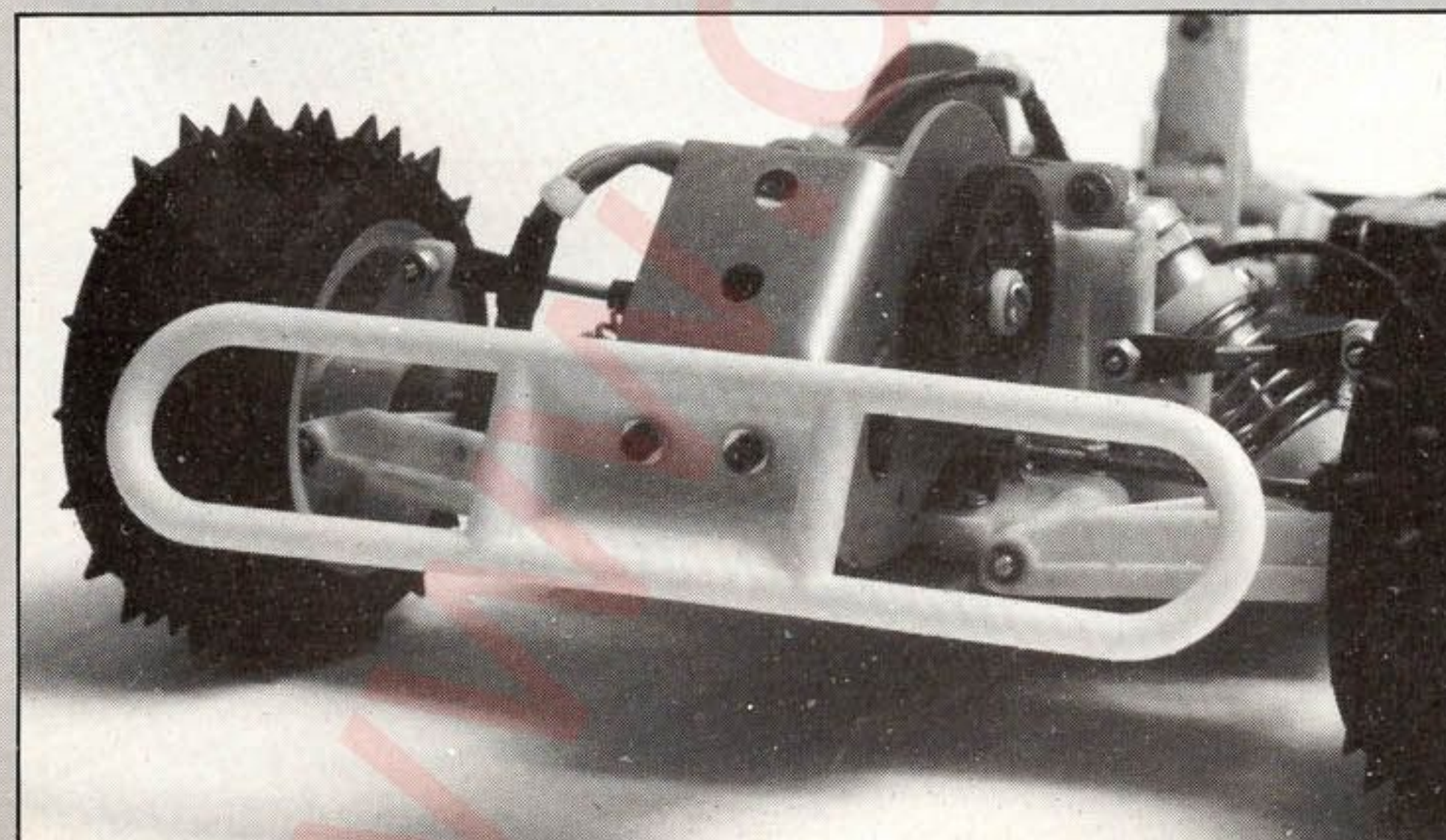
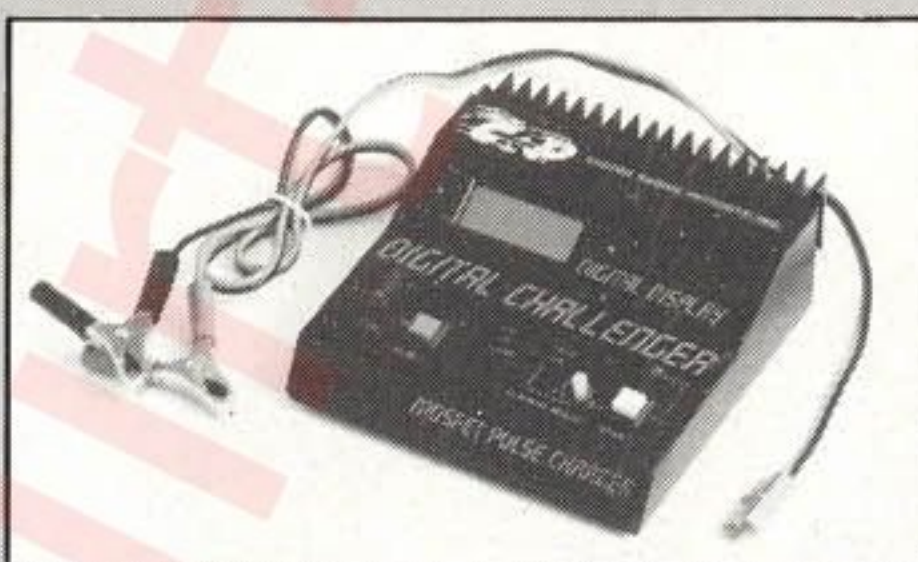
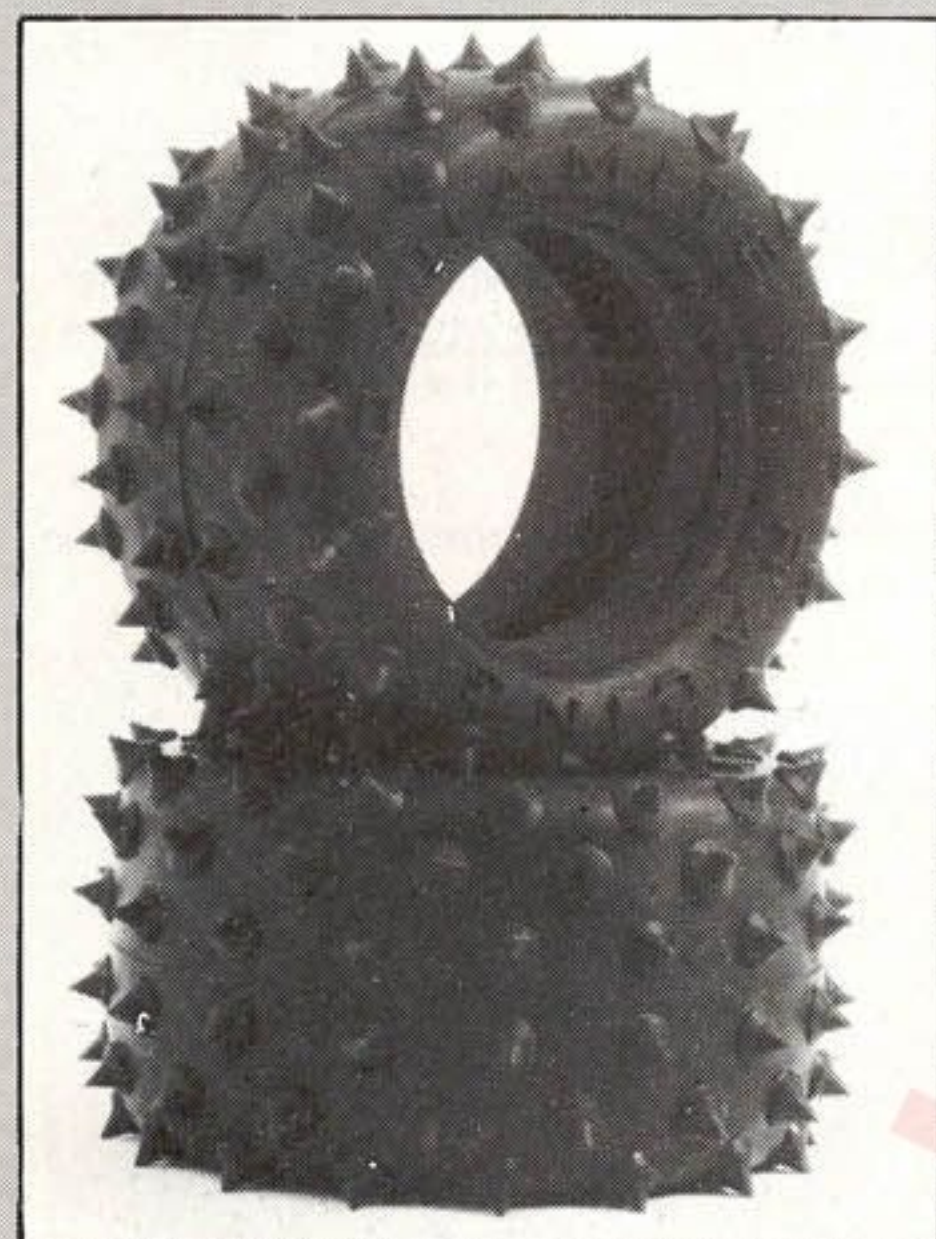
The Challenger incorporates the delta peak detection method to automatically switch from fast to trickle charge mode.

Challenger Pro-X. This charger features a Mosfet pulse charging system, by using this method you receive maximum charge retention and keep your nicad fresh by using current pulses. Special protection circuitry is also built into the Pro-X to protect against reverse connection.

Three position current switches are built into the charger giving variable user adjustment rates of 3, 5.5 and 6.5 Amp rates.

CRP also have new parts for the RC-10 in the shape of this rear bumper, the bumper protects both the motor, gearbox and rear suspension from those rear end shunts. Constantly in touch with changing trends and developments C.R.P. have altered the shape of their existing spike, it is now a little smaller and has more definition to give more grip under tricky conditions.

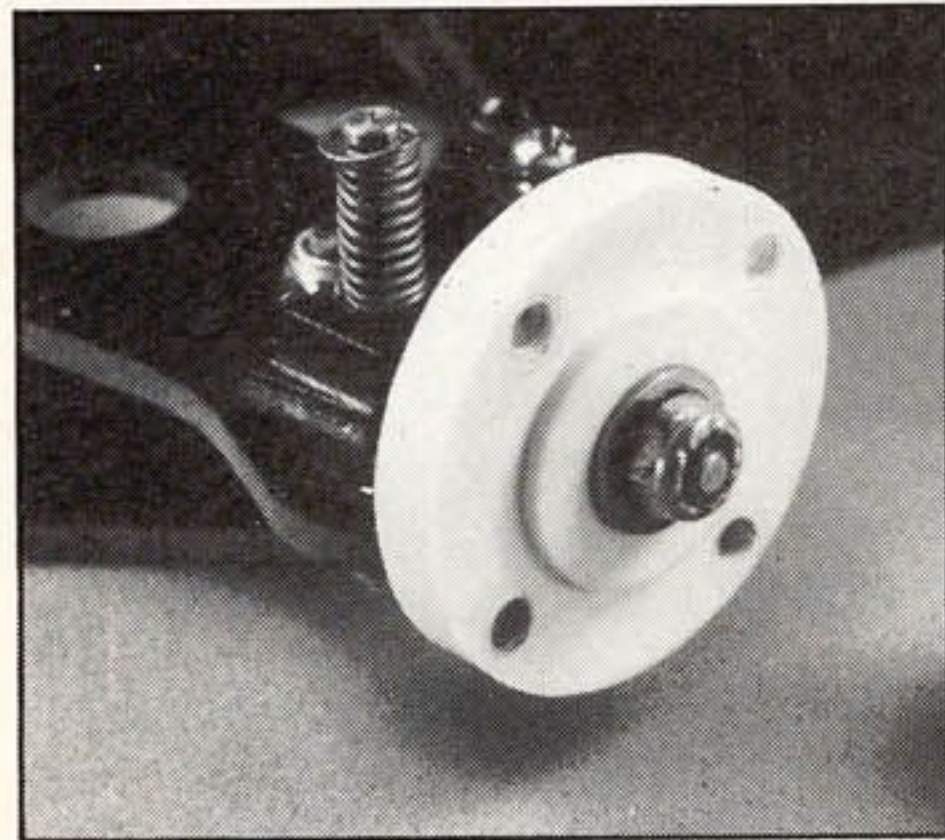
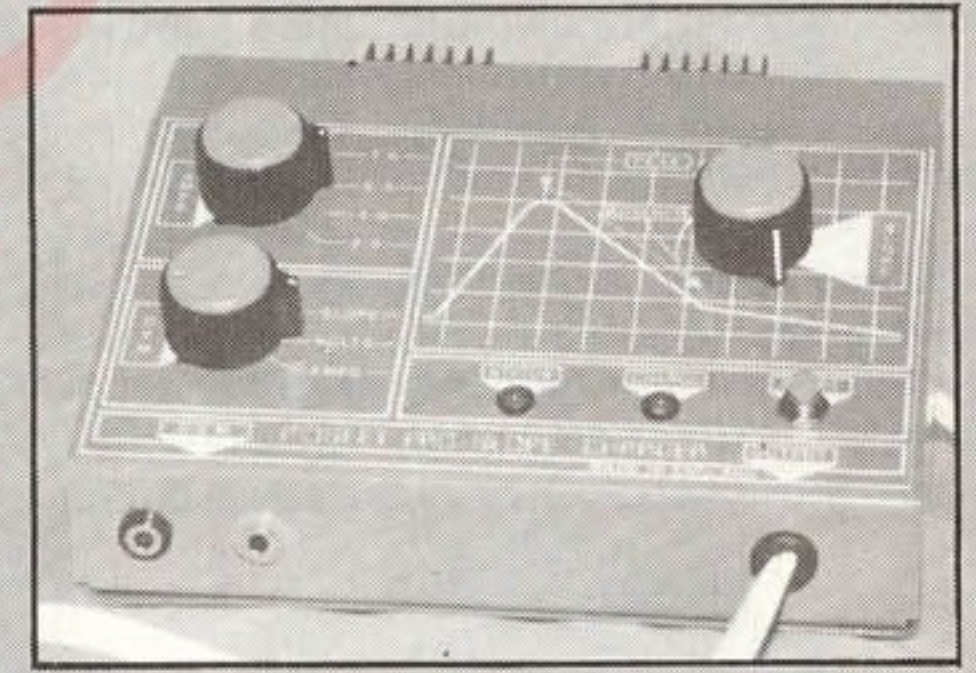
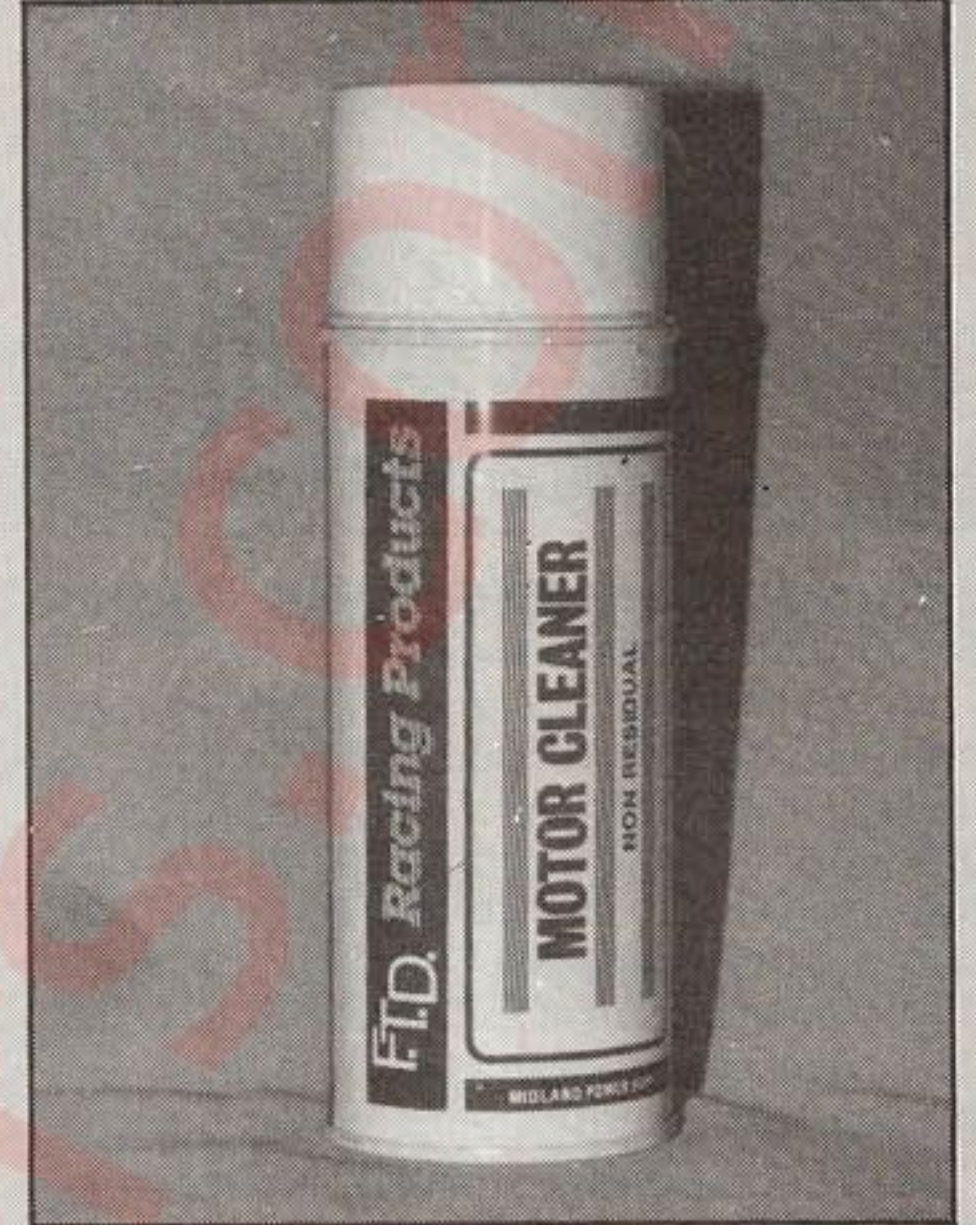
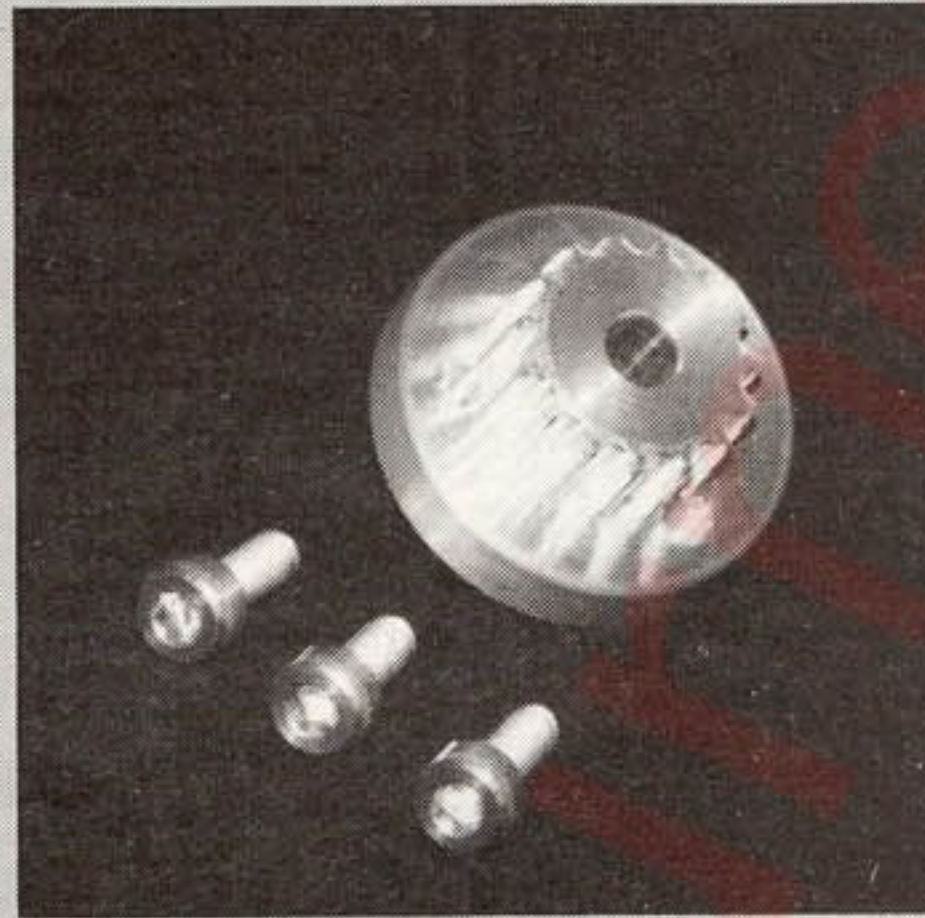
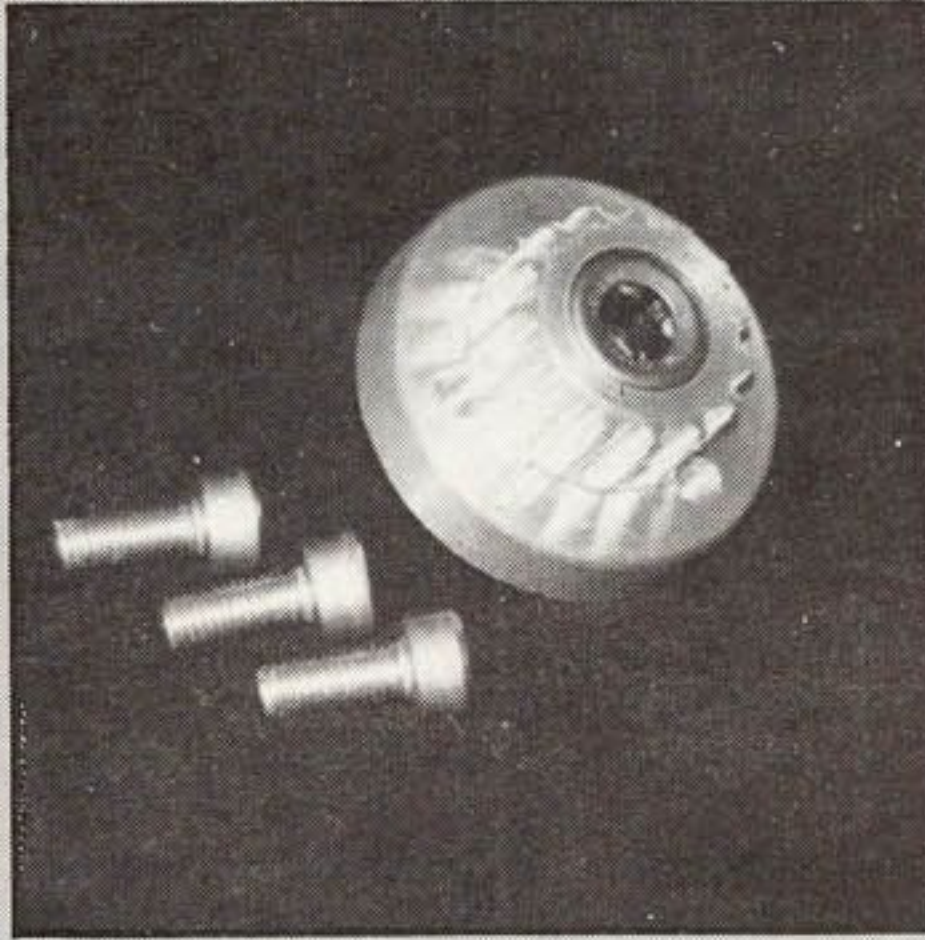
All above available from CRP outlets everywhere.



Jim Davis Models

Four items of interest from Jim Davis, first spur gear adaptors for the new Yokomo intended for use with 64 DP gears to give a larger available gear range. The adaptors are available with or without one way clutch fitted. Secondly a new motor cleaner that works very well indeed, freeing all dirt and grime from every nook and cranny of your motor and bearings. Finally a superb new mosfet charger that really puts some power into your cells. The charger is bristling with safety devices, in fact it is the most accident or idiot proof charger on the market today. Should you reverse connect either the 12 V or 7.2 battery incorrectly the charger will not operate. Should either the 12 V or 7.2 leads be shorted, the charger will not operate. In fact it seems that you can charge in a bucket of screws quite safely. The charger will also allow the user to select where he wants his peak cut off to occur, this can be read accurately by using a DVM. By switching the reading select switch you can also check on amps and volts, simply and quickly. Finally the charger allows you to select the charging amperage from 2.5 to 7.5 amps. All in all one of the all round best chargers we have seen.

All available from Jim Davis Models, Heneage Street, Birmingham.

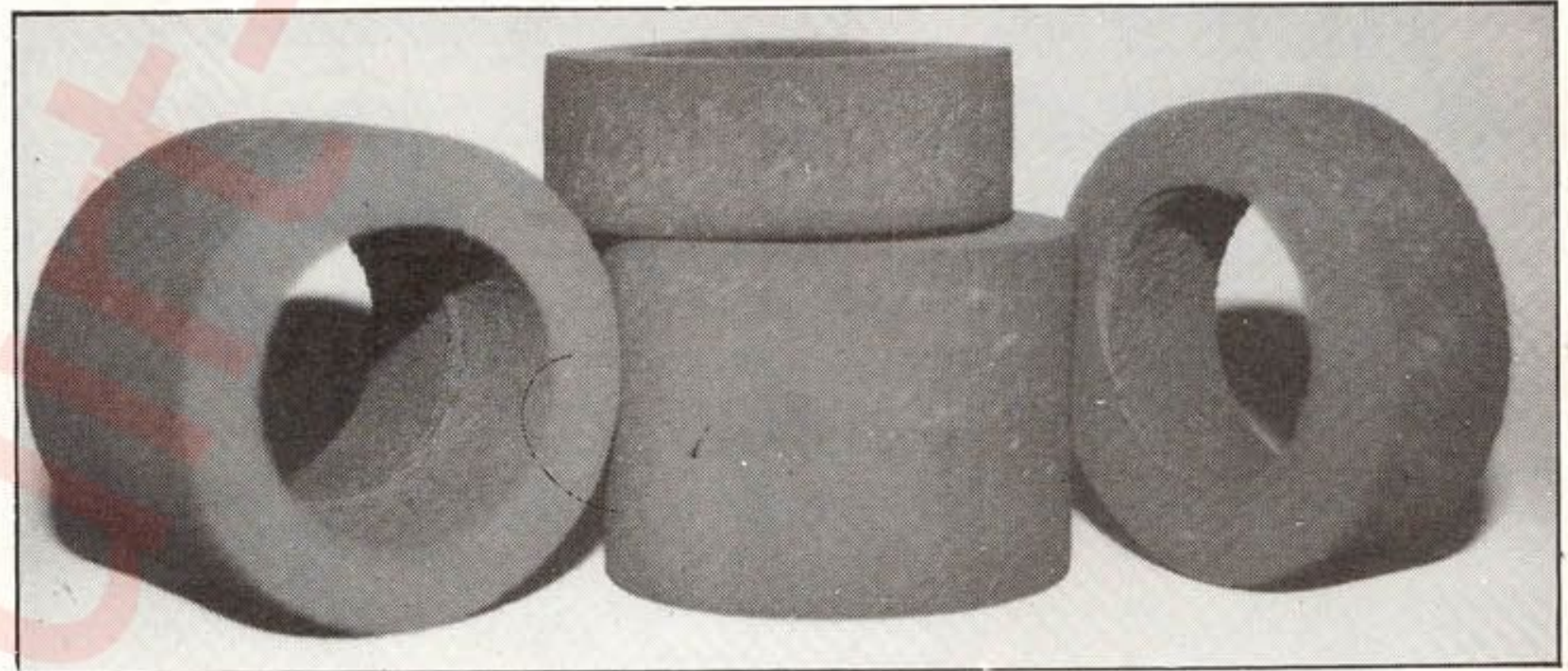


Motile Model Developments

Motile have not been slow to catch on to the fact that one tenth circuit racing is going to be a big market in the U.K., they are already producing tyres for tarmac racing. Having used them ourselves we can confirm that they work well and give good tyre

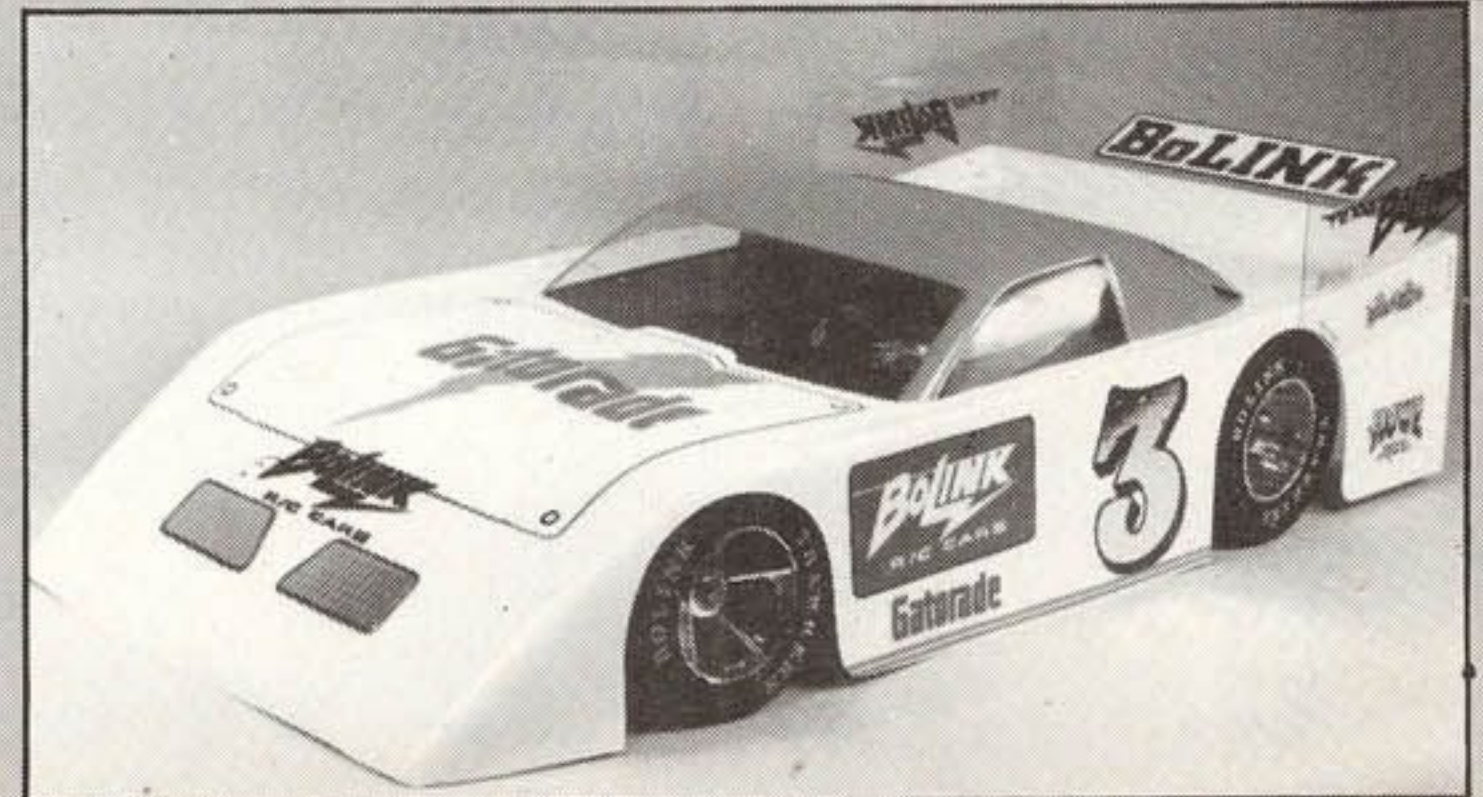
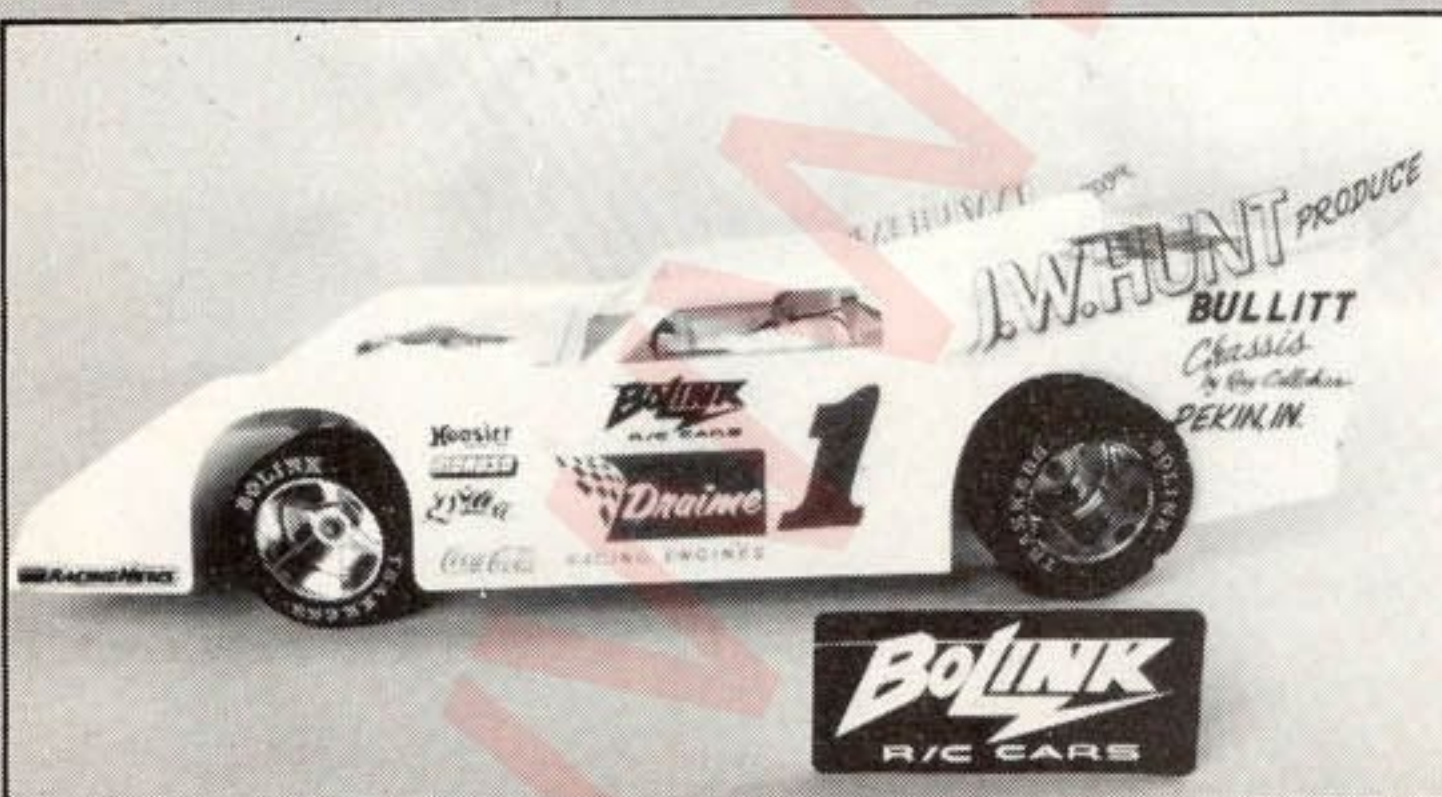
wear rate. Contact M.M.D. for all your foam tyre needs, no matter what the size or compound M.M.D. can fit the bill.

Model Motile Developments, 2, Linkside Drive, Nelson, Lancs.



BOLINK

Two new shells from Bolink this month. First the Outlaw Firebird and the Outlaw Wedge, both of these bodies give ample downforce on dirt or tarmac ovals. Bolinks new front adaptors allow the use of 1/8 wide tyres to be fitted to many 1/10 scale cars. Two types of adaptor are available, one fits Tamiya and other cars using 11mm bushings. The other has a 5/16 hole to fit Bolink, RC-10 etc. Bolink products are available in the U.K. from Ted Longshaw.



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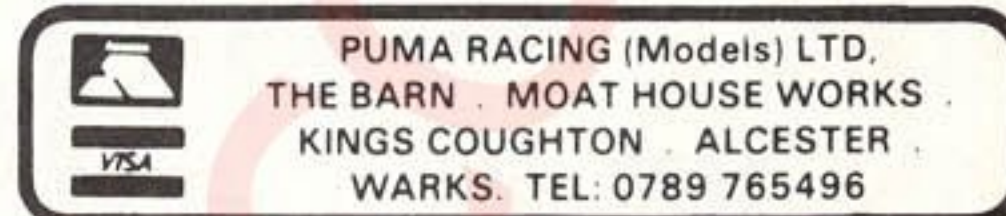
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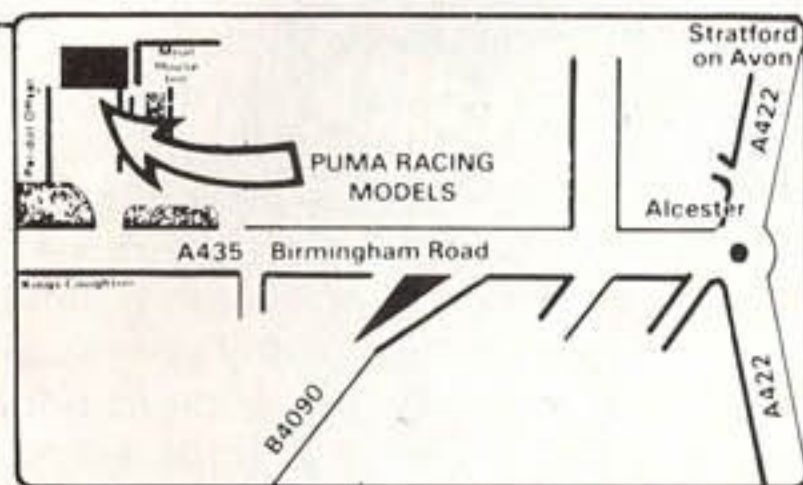
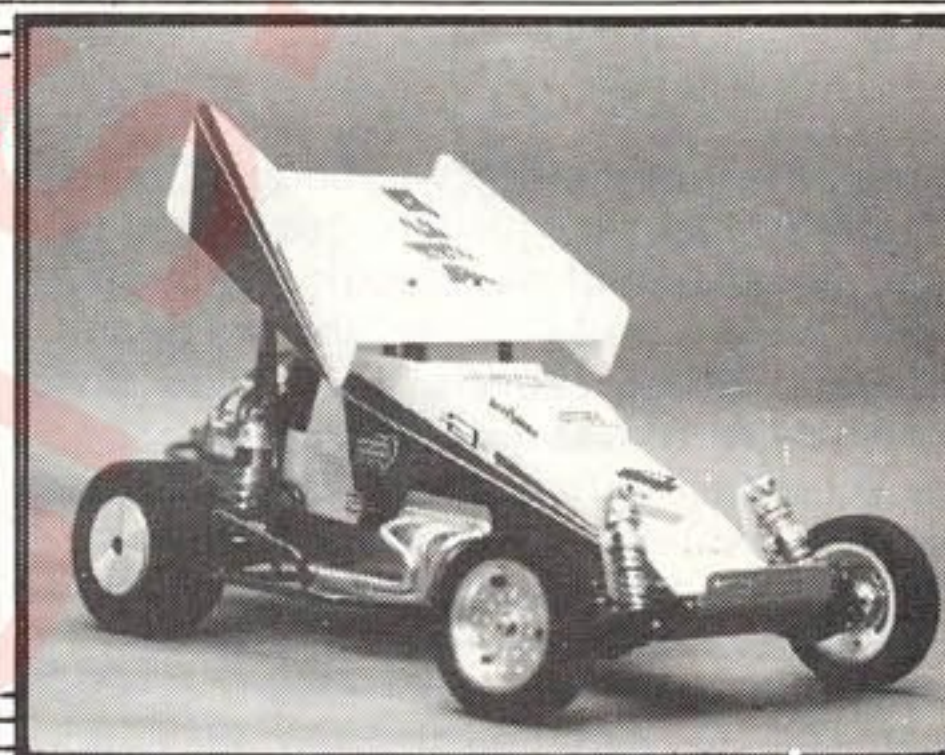
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Everybody's Got To Learn Sometime

PART TEN

In the nine months of 'Everybody's Go To Learn Sometime' I have endeavoured to cover all aspects of the electric 1/10 buggy hobby which could cause the beginner problems. Some aspects have been covered in depth others have only had the surface scratched with just the basics being dealt with whilst last month's article was a light hearted look at some of the characters you will have met at your club.

Although the series was aimed at the newcomer or beginner I have received numerous letters and comments from a group of people who I had not considered and they are the wives and mothers of buggy racers. The reason they have contacted me is that they are interested in your hobby and perhaps want to help but they don't understand technically what or why you are doing certain things. It may be that when they ask questions about your car you frighten them off by being too technical, it would be nice to think if perhaps any explanation was kept simple and without the use of jargon that both yourself and wife/mother could enjoy your hobby to a depth and in a way which perhaps you had not considered possible at its outset.

I have been asked several times to write about 'How to build a car correctly'. There is only one way to build a car correctly and that is to follow the manufacturers instructions. It is a long time since I came across a poor set of instructions, although some are better than others. The presentation of kits takes a lot of thought and high on the list of the manufacturers priority is ease and speed of building. Whichever car you decide to buy it is worth seeing if it has been reviewed, this information can be found in the back issues section of Radio Race Car. It will cost you a maximum of £1.35 to obtain that back issue where the reviewer will pass on any tips or construction difficulties that were experienced when it was built. The reviewer may have painted the car differently to the picture on the kit box and I know that a lot of the younger modellers prefer to copy the review car than that of the manufacturers design, it would be a boring old world if all cars of the same make had the same paint job. If we did, it would take us back to the Ford Model T where you could have it in any colour so long as it was black!!

Purchasing a car presents numerous difficulties for both first time buyer and second time buyer.

There are three main considerations:-

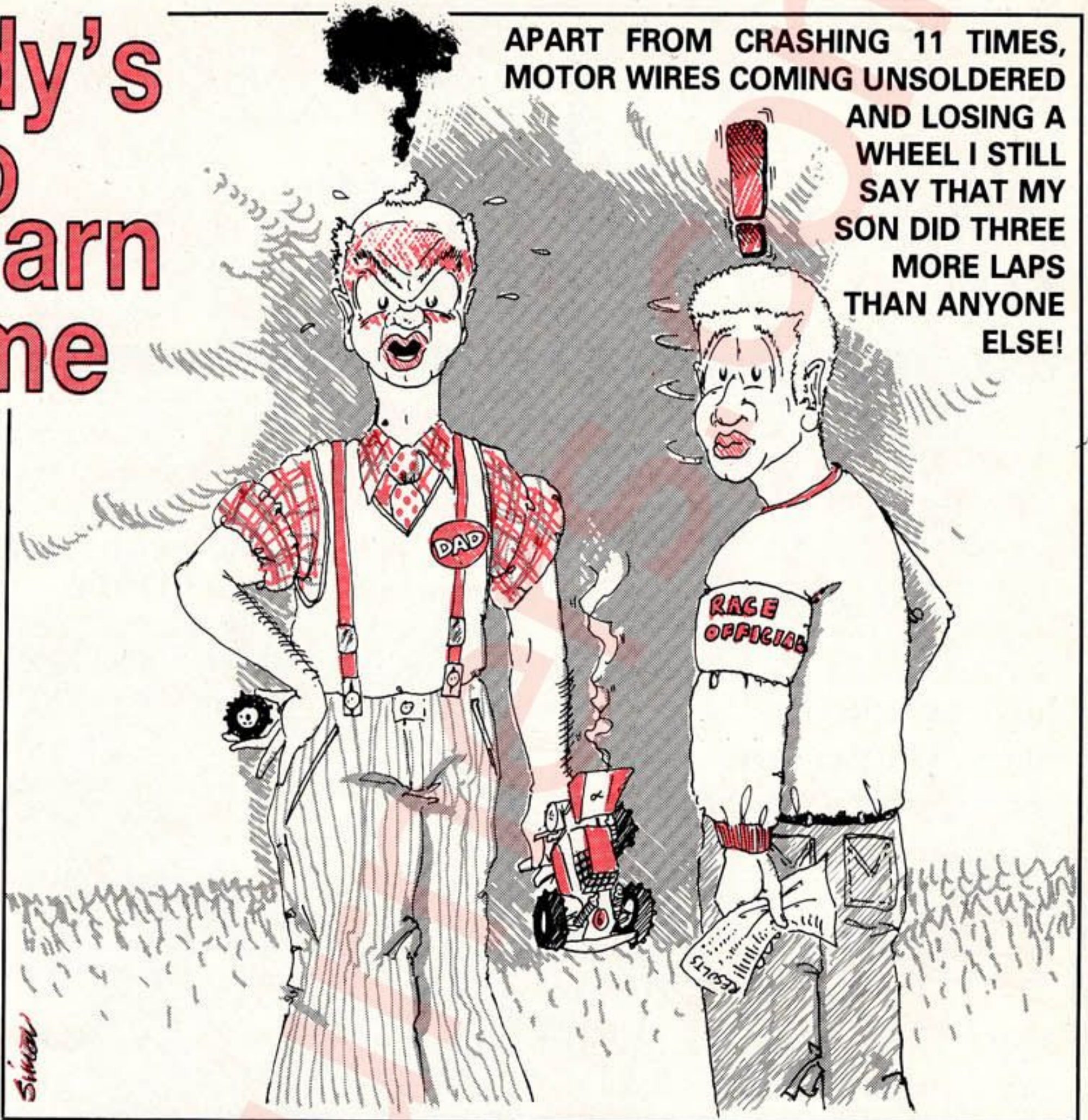
1. What do I want my car to do?
2. What will it cost?
3. How much cash do I have to spend?

It is perhaps easier to deal with item 3 first as usually that is a finite sum although in certain cases prospective buyers will ex-

ceed the amount they initially budgeted for especially if the car they have decided upon is as the result of items 1 and 2. Sometimes it will be necessary to increase the sum budgeted especially if it's the only way to get what is wanted to pursue the hobby at a particular level, only then should the initial budget be exceeded. The priority a particular person puts on his hobby and what sort of regular income he has dictates the sum available. Wives do exercise an outside constraint on the hobby as a new car or even new motor from the family point of view will not figure as highly in her list of priorities as that of the driver. Many of the younger drivers only have pocket money and income from paper rounds and such like for their hobby. Youngsters don't despair!! I have noticed once one gets a few good results under his (or her) belt and especially a few trophies on the shelf that the parents recognise you have potential, it is then that they chip in with some monetary backing. A good tip for the youngster is to get his father to be the pit mechanic, the father will not want to let either himself, his son or daughter down so there is a good chance he will replace or renew that worn or broken part. A father always wants his offspring to succeed and it is invariably that it will be the father or mother who suggests that for their son or daughter to improve a new car is needed, this situation only arises if the driver is reasonably successful or shows real potential.

It was this exact situation that took place when my son raced a 'Holiday Buggy', he was reasonably successful and the car in those days to beat was the 'Scorpion'. I treated myself to a new fully ballraced Scorpion and managed nine laps whilst my

APART FROM CRASHING 11 TIMES, MOTOR WIRES COMING UNSOLDERED AND LOSING A WHEEL I STILL SAY THAT MY SON DID THREE MORE LAPS THAN ANYONE ELSE!

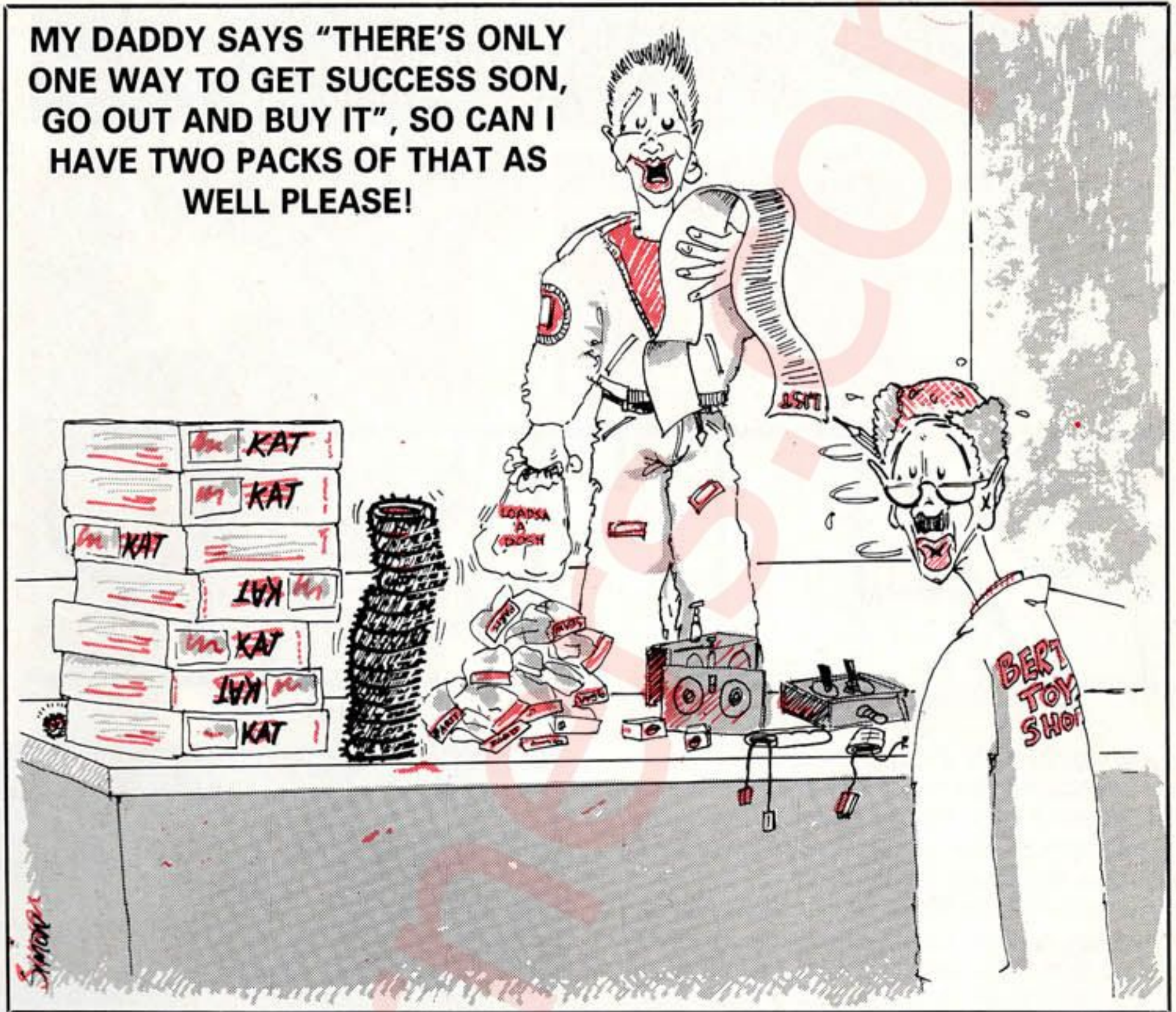


son was doing thirteen with 'The Holiday Buggy', for me to be driving such a good car was like casting pearls before swine. As a treat, I loaned my new pride and joy to my son who showed how the car should be driven and easily won the 'B' Final. I never drove the 'Scorpion' again but did continue not very successfully with the 'Holiday Buggy'. Youngsters may not realise it but they do give their parents tremendous pleasure by demonstrating their driving skill on the track. It is not necessary (but it helps) if a child is successful because another pleasure that parents derive from the hobby is that they can actually take part in it with their children, this also applies to the wives who help their husbands.

Lin West painted the car with which her husband won the concours trophy at the Radio Race Car Finals at Donnishthorpe and the same thing is happening this year. The concours at Birmingham's 4WD Radio Race Car round was won by Mrs. Griffin who painted Kevin's Optima, Radio Race Car review car 'Midnight Pumpkin' was painted by Alan Hughes' wife Sandra. At my own club 'Mr. Airbrushes' wife Joan and 'Mr. Wonderful's' wife Jan do the lap scoring. Who usually does the refreshments at club meetings? Correct, it is the ladies who are wives, girlfriends or mothers. Although the hobby is about racing model cars there is a lot of involvement other than the actual racing. It is because of the drivers hobby of racing that the ladies do what they do but have you ever thought what racing would be like if they were not there or you did not have their backing. The young driver without the backing of a parent would most probably have an inferior car to that he has at present, the same could be said of the husband, he might

have to make his present car last another season or even take the family out on a Sunday rather than race. What about the refreshments? Would a meeting ever be the same without the smell of hotdogs drifting across the track? The potentially abused persons at any meetings one attends are the lap scorers, its a thankless task and without them racing can be forgotten. I have never yet experienced anyone complain that they have been given one lap too many but if only I had £1.00 for every complaint of one lap too few. Mistakes do happen and depending on how good your club computer program is it is a mistake that can be easily rectified. It is important that if you feel a lap has been missed you go about getting the situation rectified correctly and that does not mean shouting abuse at the lap counter, especially during a race. Abuse of any kind cannot be tolerated and the sight of some demented driver (although it's usually a parent) trying to remonstrate, only compounds further errors by distracting the lap counter during the race which is in progress at that particular time. Honesty plays a large part in any protest as when an extra long lap time has been credited it may have been as the result of a crash or a problem with the car and not a missed lap by the lap scorer. Have you noticed that it is always the same driver or parent who seems to have been 'missed' a lap. Some clubs let all cars continue racing until the last car in the race crosses the line and gets his split time. This is the most common cause of confusion for parents and wives who have counted the total number of laps that 'their' driver has completed. Their total can be as many a two laps more than the driver is credited with on the computer. The explanation is simple but often misunderstood or forgotten. If the top driver in the heat averages 14 laps in five minutes and the slowest only 7 then the quick driver does two laps for everyone of the slower driver which makes it possible for the quicker driver to do two extra laps whilst the

MY DADDY SAYS "THERE'S ONLY ONE WAY TO GET SUCCESS SON, GO OUT AND BUY IT", SO CAN I HAVE TWO PACKS OF THAT AS WELL PLEASE!



slower driver is obtaining his split time, this occurrence can happen especially when the slower car just goes over the finishing line when the five minutes is up. The problem can be overcome by asking each driver to pull off when he has completed his split time. If you feel you have a justified protest, conduct yourself with dignity and if it always seems to be 'you' that is missed a lap ask the question, 'why me?' There is no need for an argument and these mistakes which do happen can be corrected quite easily especially if emotion is kept to a minimum and reason kept to the fore. It is worth remembering lap counting is a

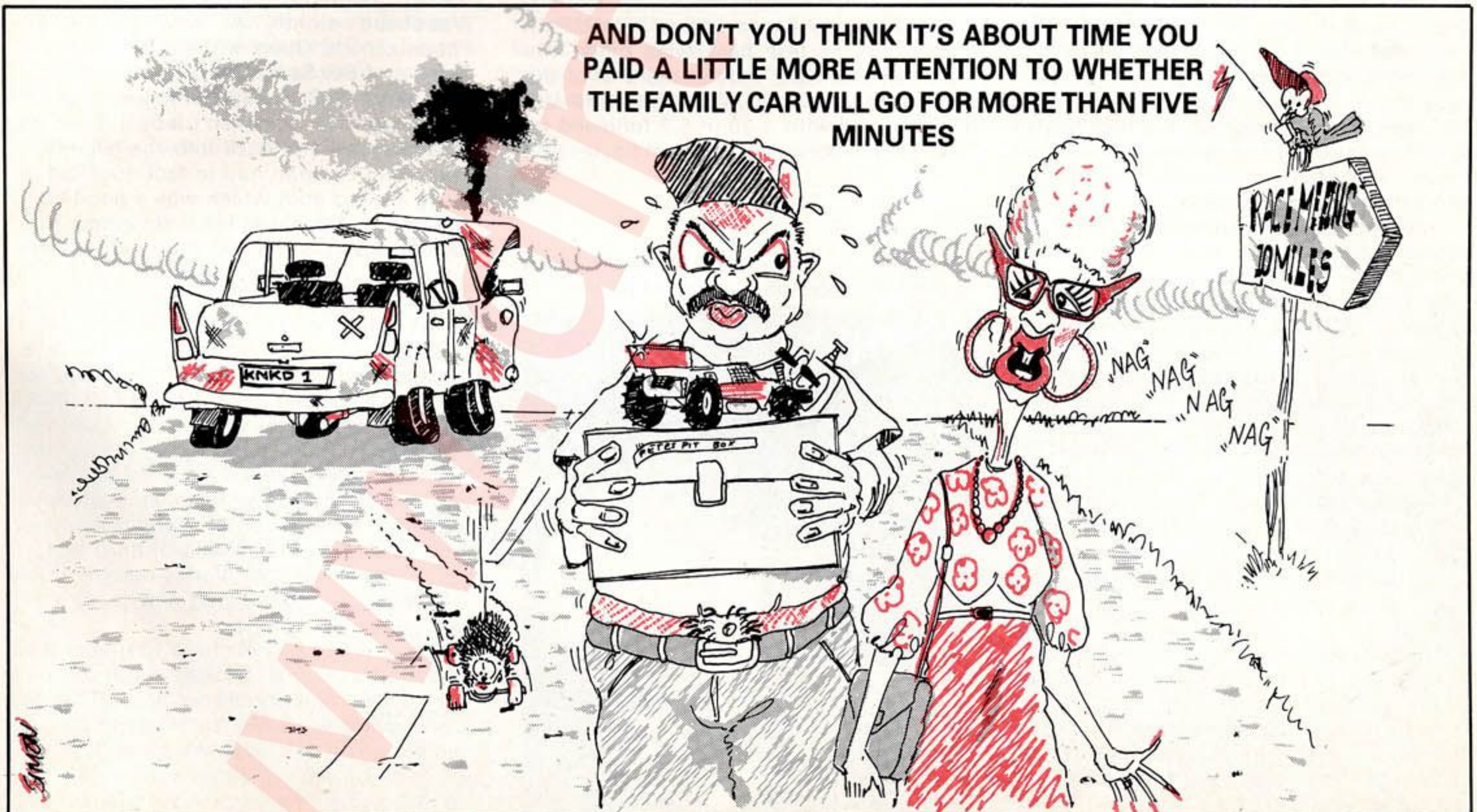
grotty job and the only time there are any volunteers is when it's raining, so the person is not really there to count laps he's there to keep dry. Respect your lap scorers and treat them like gold dust as they are worth their weight in gold.

Next month I will deal with:-

1. What do I want my car to do?
2. What will it cost?

So until then enjoy the good weather and fast tracks and when you discuss your hobby with either your wife or mother keep the technical side simple, cut out the jargon and hopefully you will both get a lot more out of your chosen hobby.

AND DON'T YOU THINK IT'S ABOUT TIME YOU PAID A LITTLE MORE ATTENTION TO WHETHER THE FAMILY CAR WILL GO FOR MORE THAN FIVE MINUTES



Bob Errington's

PIT PATTER

Spring Bank Holiday at the end of May produced the usual cheery meeting at the Tibshelf circuit in Derbyshire and had a good entry. Plenty of the new PB Phoenix's were in evidence, but still only the two Serpent Spirits in the hands of Steve White and Gary Culver, although the good news came on the Sunday when Serpent distributor, Walt Bailey turned up with a car load of the new kits fresh from pick up at the local Airport, but more of that anon.

The meeting started on the Saturday morning with the third round of the BRCA Saloon Championships, although this meeting was not to count for qualification for next years European Saloon Championships in Aberdeen as on this May weekend. The 1988 Saloon Champs were in progress and had attracted various British drivers to compete.

Alan Harman from some other well known magazine! was entered but as he had no eighth handicap and is a known off-road racer, he was given a nominal skill rating of 100 which was deemed reasonable on watching his early morning practice runs.

In heat 1 alone he showed that this rating was conservative by driving round sensibly, avoiding the slower cars, to record sixteen laps. This time stood for two heats until Maurice Cox, who was also driving a Phoenix like Alan, notched the first seventeen with a time of 8.9 seconds.

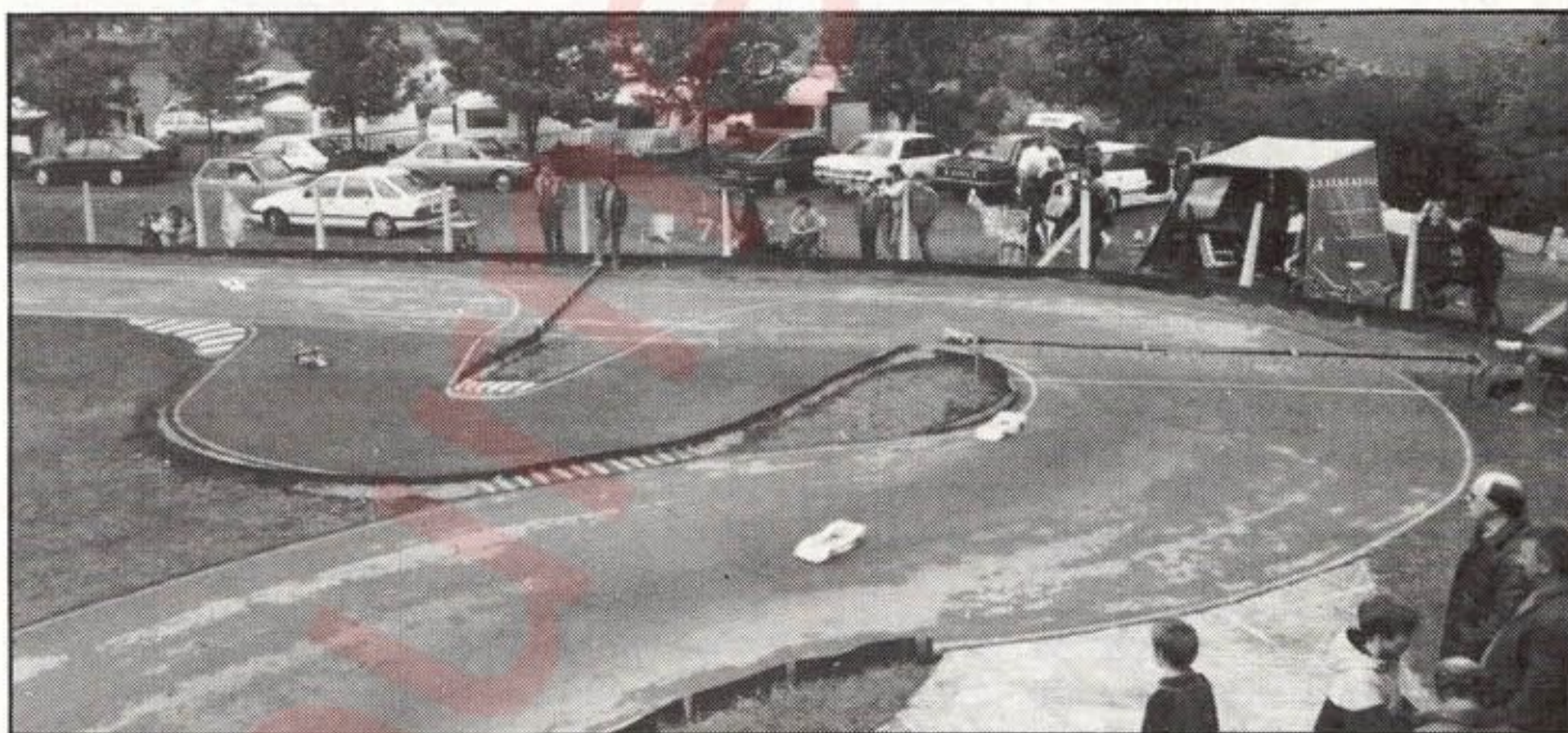
Heats 4 and 5 had seventeens for Rob Abbiss, Dave Cotton and Dave Jones, whilst 6 saw the first eighteen for young Chris Edwards and heat 7, two nineteen lappers for Mike Jackson and John Pryce. The pace was rising at a lap a heat, surely we were going to see twenty lappers, the first round whilst the track was still gaining in traction.

Twenty laps there were though with no fewer than four from the last two heats leaving the round 1 qualifying like this:-

1	Dave Dixon	20 laps	6.3 secs
2	Steve White	20 laps	6.6 secs
3	Nigel Sayles	20 laps	8.3 secs
4	Chris White	20 laps	11.6 secs

Mike Jackson, who was lying eighth and hence just in the 'Open', was also top man for the group 'A' final with Dave Jones top of the 'B' and surprise, surprise, Alan Harman top of the group 'C'.

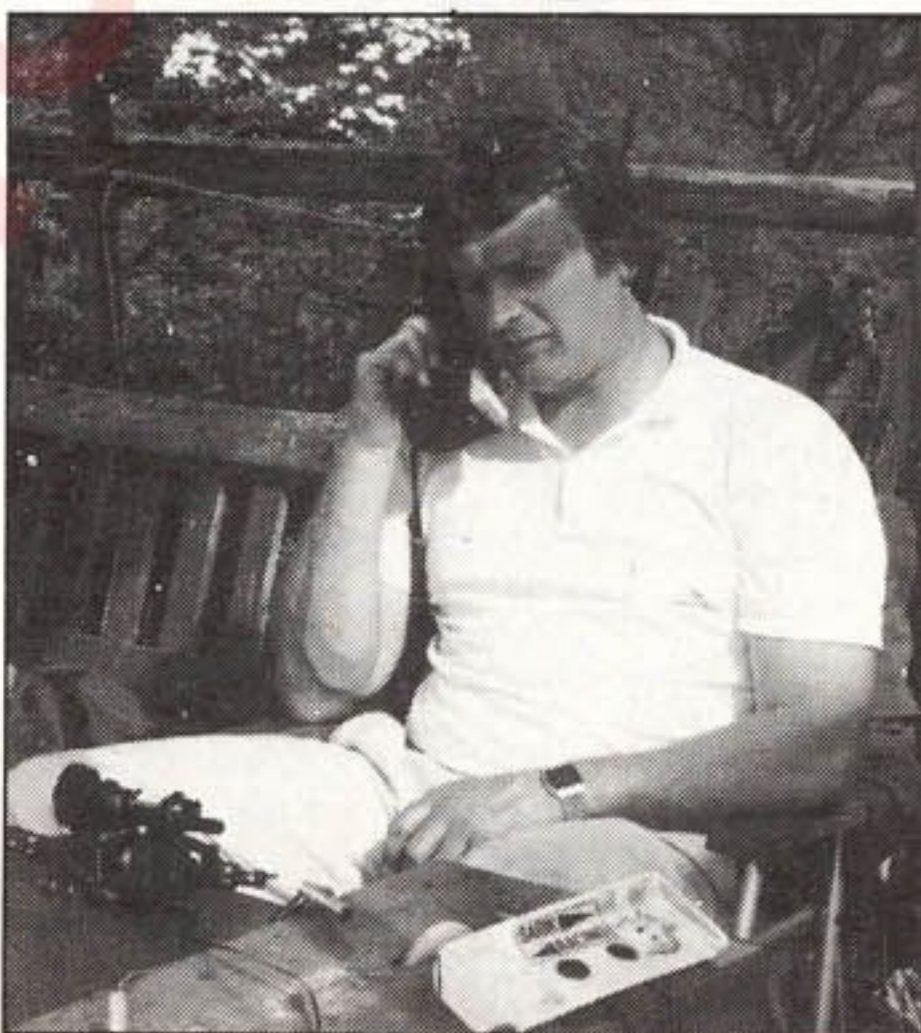
The second round of heats followed straight on and with the higher amount of



The Chichane at Tibshelf as seen from the Rostrum.

grip now available, most drivers were able to improve on their first round scores. Noticeable improvements included Pete Taylor in heat 3 who clocked 18, Richard Cranston in heat 6 also with an 18 and Paul Pagdin in the last heat who made the magic twenty laps, thus at the end of the second round Chris White had sneaked into the lead with a 20 in 5.7 followed by Dave Dixon, Steve White, Nigel Sayles and

Now what is Steve White saying to Walt Bailey? Answers on a postcard please.



now Paul Pagdin up in fifth. The 'A' group was still headed by Mike Jackson and Pete Taylor had moved up to head the 'B' group after that good heat. Alan Harman was still leading the 'C' despite not starting his second round heat.

During the lunch break the track was closed for half an hour for all to get some peace and then opened for a half hour free practice, whereupon we started the final round of heats.

As is usual, many drivers scored their best results but it was in heat four when Sean Jackson surprised a lot of people by scoring that 20 laps in five minutes, 15.1 seconds. Chris Edwards, two heats later, got a personal best of 19 in 12.5 but this would only give him fourteenth overall position, although quite sufficient to qualify him for the 'A' final.

Heat eight saw the FTD go to Dave Dixon with a 20 in 3.14 seconds whilst heat 9 saw Nigel Sayles' trusty SG Space take the second spot with a time just half a second

ahead of Chris White in third. Steve White held onto fourth with his first round time, Paul Pagdin fifth, Sean Jackson sixth, Steve Whitting seventh and Neal Woodhead eighth. A total of six PB Phoenix in the 'Open' with the lone Serpent Spirit and SG Space making up the numbers. Dave Preston had driven well to qualify eleventh and it doesn't look if it will be long before he is back into the 'Open' finals. Alan Harman had in fact qualified in thirty second spot which was a good considering that this was his first venture into eighth and also the fact that he was running the Phoenix review kit that his magazine had just built.

The first final, as usual, was the 'C' and here Alan Harman led off from his Pole position to lead the race from start to finish. The experience must have been good for him as his times improved throughout the duration of the race. Second place finisher Roy Edwards a good consistent race but never quite as quick as the leader but still good enough to score 48 laps, nearly six laps ahead of third placed Adrian Hill. Poor John Varley had hit problems even before the start and never even got going.

An early lead by Richard Cranston was thwarted in the 'B' final at about the half way mark when trouble put him off the circuit leaving Amel Mahatme to run out the winner on 50 laps, just two seconds ahead of a charging Dave Jones who was trying to make up for his bad opening laps. Third

place went to Murray Collins who had also had problems in the final five minutes.

The 'A' final line up included pole man Mike Jackson, Dave Preston, John Pryce, Chris Edwards, Steve Tilley, Bhajan Panasar, Wayne Draycott and Sean Leake and it was Dave Preston who took the initial lead from John Pryce, Bhajan Panasar and Sean Leake. It was not to be John's day though as after only six laps he had gracefully retired with a major problem.

It was to be Dave Prestons race though for most way and if only he hadn't cut at the fourty lap mark, he could have made it all the way. In the end it was Bhajan who came out on top from Dave in second albeit only ten seconds back and then Sean Leake a few laps behind in third and Steve Tilley fourth.

The Open final produced the best start of the day with all eight cars circulating in very close proximity. Steve Whitting was the first casualty then Chris White and Sean Jackson as problems were encountered. This left the lead as a straight fight between Dave Dixon and Steve White which was good for ten minutes until Dave too had problems leaving Steve White with a relatively comfortable win on 118 laps from Paul Pagdin a lap and a half behind.

Final positions then were:-

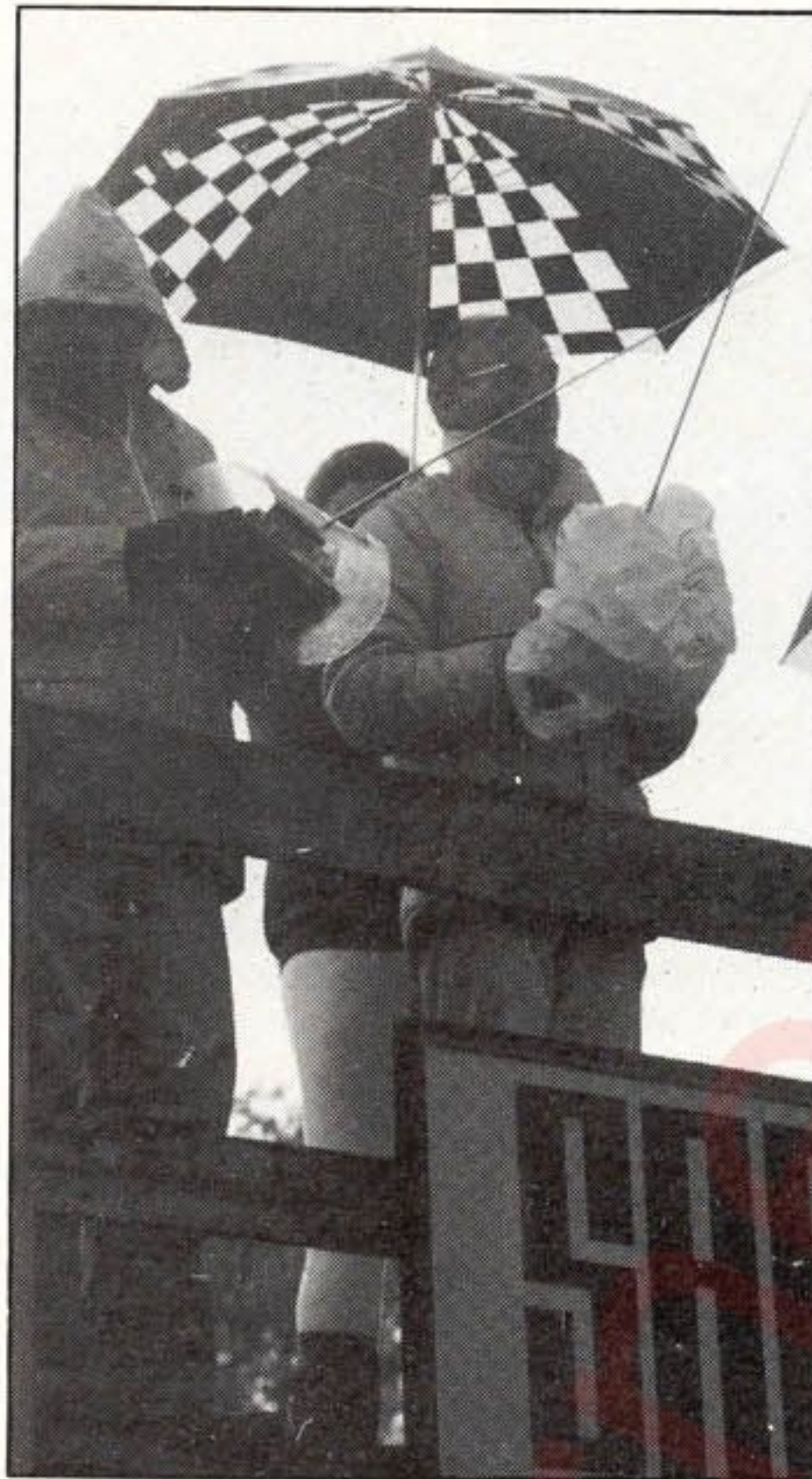
1st	Steve White	Serpent Spirit	S Power	118
2nd	Paul Pagdin	PB Phoenix	Nova Rossi	116
3rd	Dave Dixon	PB Phoenix	Nova Rossi	107
4th	Neal Woodhead	PB Phoenix	Nova Rossi	104
5th	Nigel Sayles	SG Space	Nova Rossi	104
6th	Sean Jackson	PB Phoenix	Nova Rossi	99
7th	Chris White	PB Phoenix	Nova Rossi	95
8th	Steve Whitting	PB Phoenix	Nova Rossi	77

By comparison Sunday's Formula racing became a bit of a dissapointment by being wet to start with and the track gradually drying through the course of the day until heat 9, in the last round it rained heavily and stayed that way till the end.

Chris White in the second round achieved a twenty one lap time to go top and this was only beaten by Bhajan Panesar with his 21 in 12.61 seconds, just 0.6 of a second off the now long standing Formula record.

Alan Harman was the other surprise performer in these changing conditions, being at one stage in the 'Open' but still managing to qualify nineteenth at the end of the day.

The Ford Cosworth series race was a



Dave Preston, back in an Open final, even if assisted by his beloved.

complete failure in that only Roy and Sean Douch from the Bournemouth area had entered. Both elected to run only one heat which, as there are not finals for less than four, became the final as well! Shame on you all.

The 'C' final was another walkaway vic-

tory for Alan Harman who once again showed his capabilities by being six laps ahead of second placed Keith Berriman and third man Paul Davey.

Murray Collins had borrowed Paul Pagdin's Phoenix for the days racing and had qualified it well thus boosting the self confidence enough to lead the 'B' from start to finish with Bruce Edwards second and Dave Jones third. Dennis Jones being the unlucky fourth place finisher and thus not getting a mention in this report! Murray looked at ease with the car all day which gave rise to speculation of a change from his SG Space — Time will tell. Not withstanding the fact that it is always nice to drive someone elses car, especially if it's a well set up one like Pauls.

It was raining before the start of the 'A' final which delayed the start a bit and it was, even then, wet enough to stop three people from running at all. Gareth Bell, Ray Killgallon, Chris Edwards and Sean Jackson were the only ones to start. Conditions were such that at five minutes Mike was still in the lead but with only fifteen laps. This became 29 laps at halfway mark where the gap back to second man Ray, now, was only 8 seconds. By this time Sean had retired after an incident on the straight leaving four running. By fourteen minutes this had reduced to three as now Gareth had pulled out as well.

Mike held on well to his lead putting his PB Phoenix into the winners box with Rays Serpent in second and Chris Edwards SG third.

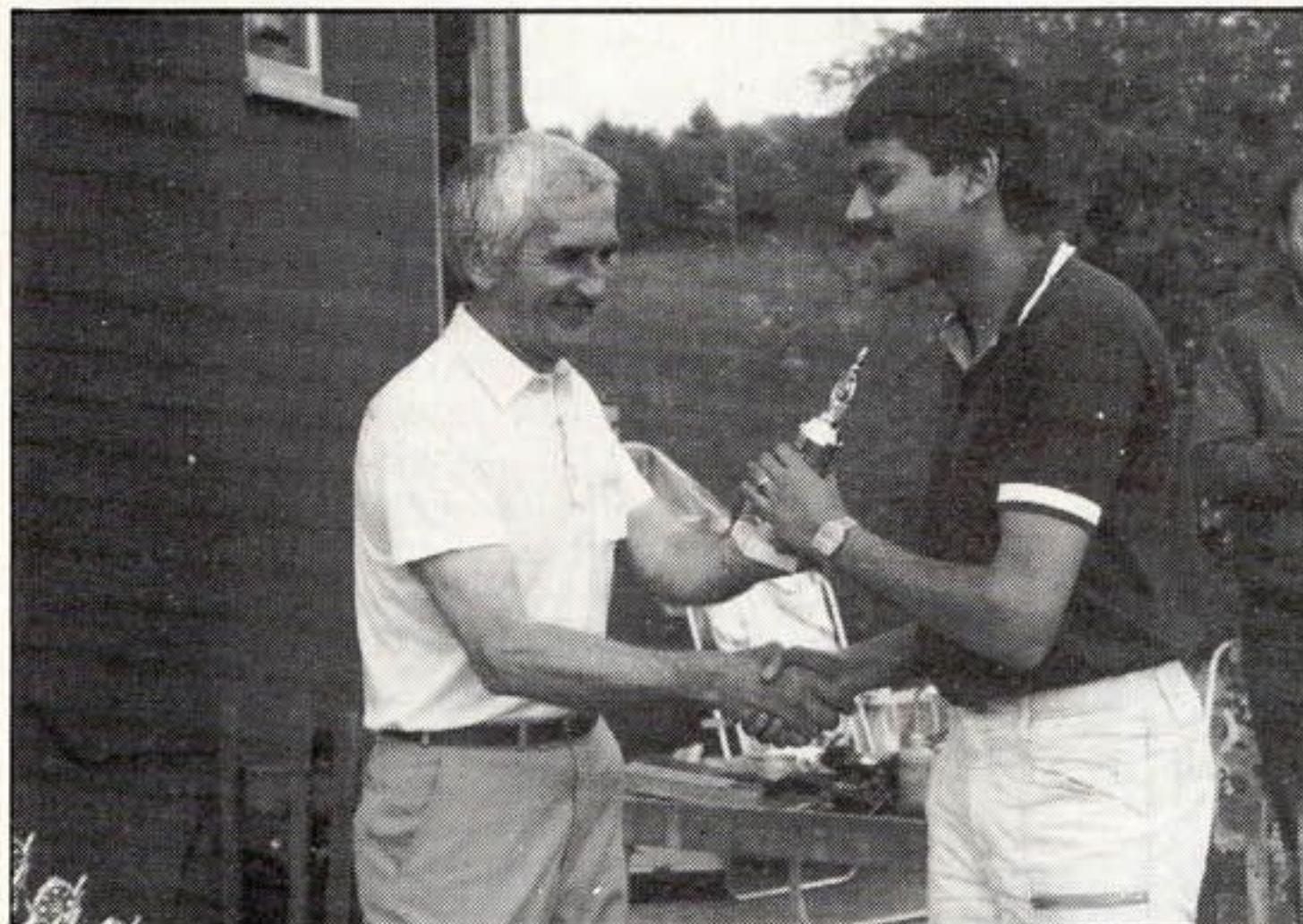
Poor old Dave Dixon looked quite sick as the 'Open' finalists lined up in these very wet conditions. Dave only qualifying ninth here and thus not quite in. Chris White lead off the line but Bhajan got it back again on the opening lap to lead, the once again diminished field. Bhajan held this until the five minute mark when he hit a barrier damaging his car and forcing him to pit for about five or six laps, thus leaving Chris in charge. By ten minutes Chris had a lap on Pual Pagdin in second with Neal Woodhead a further lap back on 29 laps. Dave Preston was on 28 and going much better now that his beloved was stood on the rostrum with an umbrella keeping the rain of his glasses. Nigel Sayles wasn't far behind but was starting to experience slipping problems with the one way bearing in

Bahajan Panasar winner of Saloon 'A' Final and FTD in Formula.

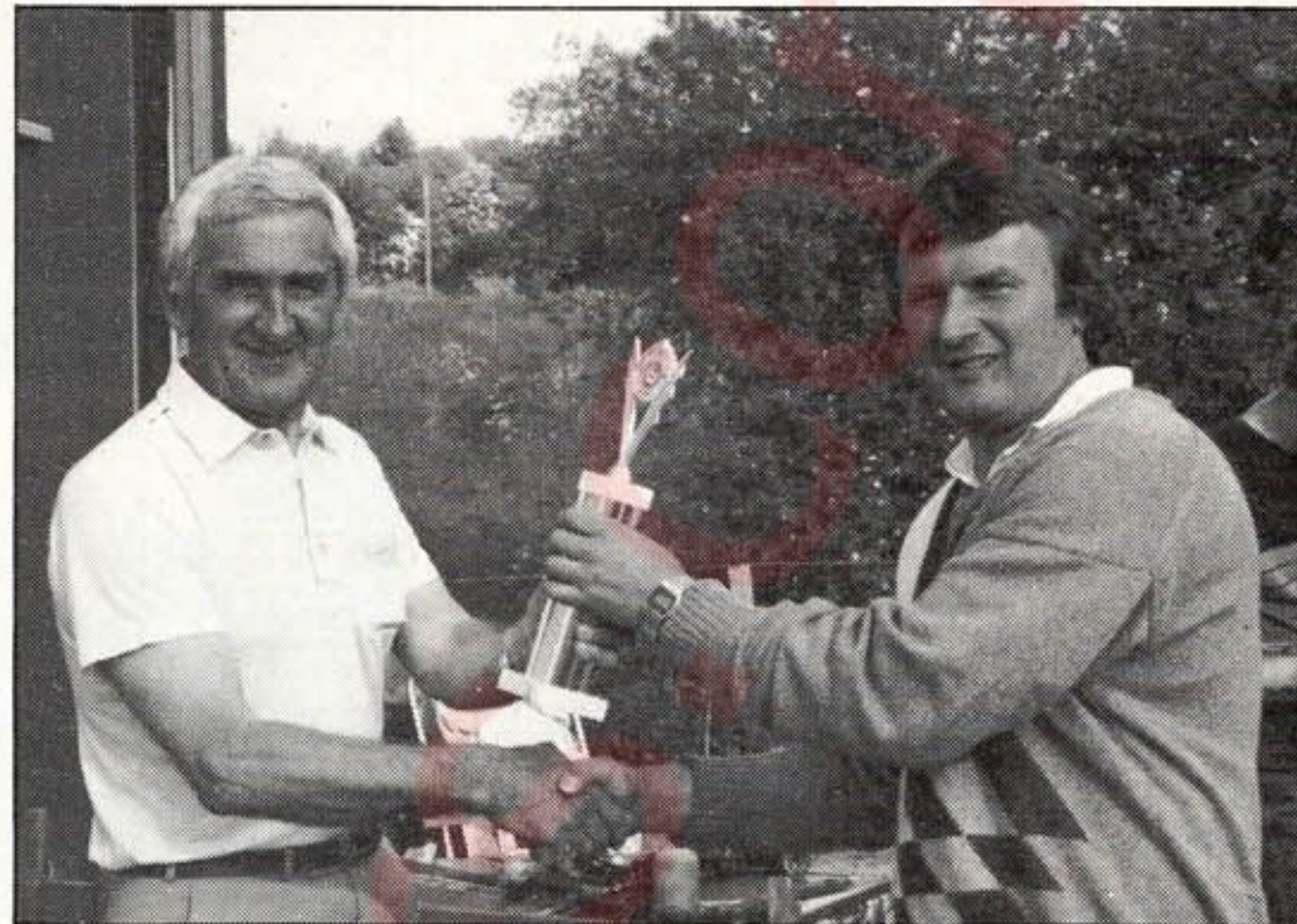


Just the One for Gary Culver!





Amal Mahatme 'B' Saloon Winner.



Steve White collects his Saloon fin.

the gearbox causing Dad to run onto the track at frequent intervals to squirt fuel into the bearing in order to dispel the water.

By half way Chris was in a comfortable lead from Paul with Dave now in third, Neal fourth, Nigel then Bhajan. Ten minutes later the sun was actually out and shining which made the track surface become greasy causing several people to spin but not making it dry enough to change from the universal MRC tyres. Too late for Dave Preston though as by now he had been forced to retire moving most of the field up a place at the end then another good win for Chris and his Phoenix.

1st	Chris White	PB Phoenix	95
2nd	Paul Pagdin	PB Phoenix	92
3rd	Neal Woodhead	PB Phoenix	88
4th	Nigel Sayles	SG Space	84
5th	Bhajan Panasar	Serpent Quattro	83
6th	Dave Preston	Serpent Quattro	71
7th	Steve White	Serpent Spirit	3
8th	Gary Culver	Serpent Spirit	*

*Did not start

Monday's weather looked set to be more stable, despite a damp start, so everyone got onto the serious business of qualifying. First heat of the day saw a fifteen lap time to young Mark Ashton who is now the third member of the Ashton ensemble to go racing. Come on Pete, it's your turn next!

Stuart Wilcox had the lone Kyosho for this meeting with Colin Straus absent. Nevertheless a sixteen was recorded in heat two, followed by a seventeen from Alan Harman in the following heat and that

was not bettered until Ray Killgallon went just two seconds quicker in heat 6. Heat eight shattered these though with two eighteens for Steve Hart and Dave Preston as well as two nineteens for Chris White and Bhajan Panasar. Heat nine started well for Bob Errington but it was only half a dozen laps before the motor went off and Steve White sailed by and on to score an unbeatable twenty laps. Neither Gary Culver or Dave Dixon in the last heat could match Steve and so both settled for nineteens leaving Steve on pole from Gary, Dave, Chris and Bhajan.

It was obvious that the grip was now improving as we entered the second round with Mark Ashton upto a sixteen, Stuart Wilcox upto a seventeen and Alan Harman now on a nineteen in Heat three to set tongues wagging and although two nineteens went to Chris Edwards and John Pryce in heat 7, it was not until heat 8 that any more twentys went in, this time to Paul Pagdin, Bhajan Panasar and Steve Hart.

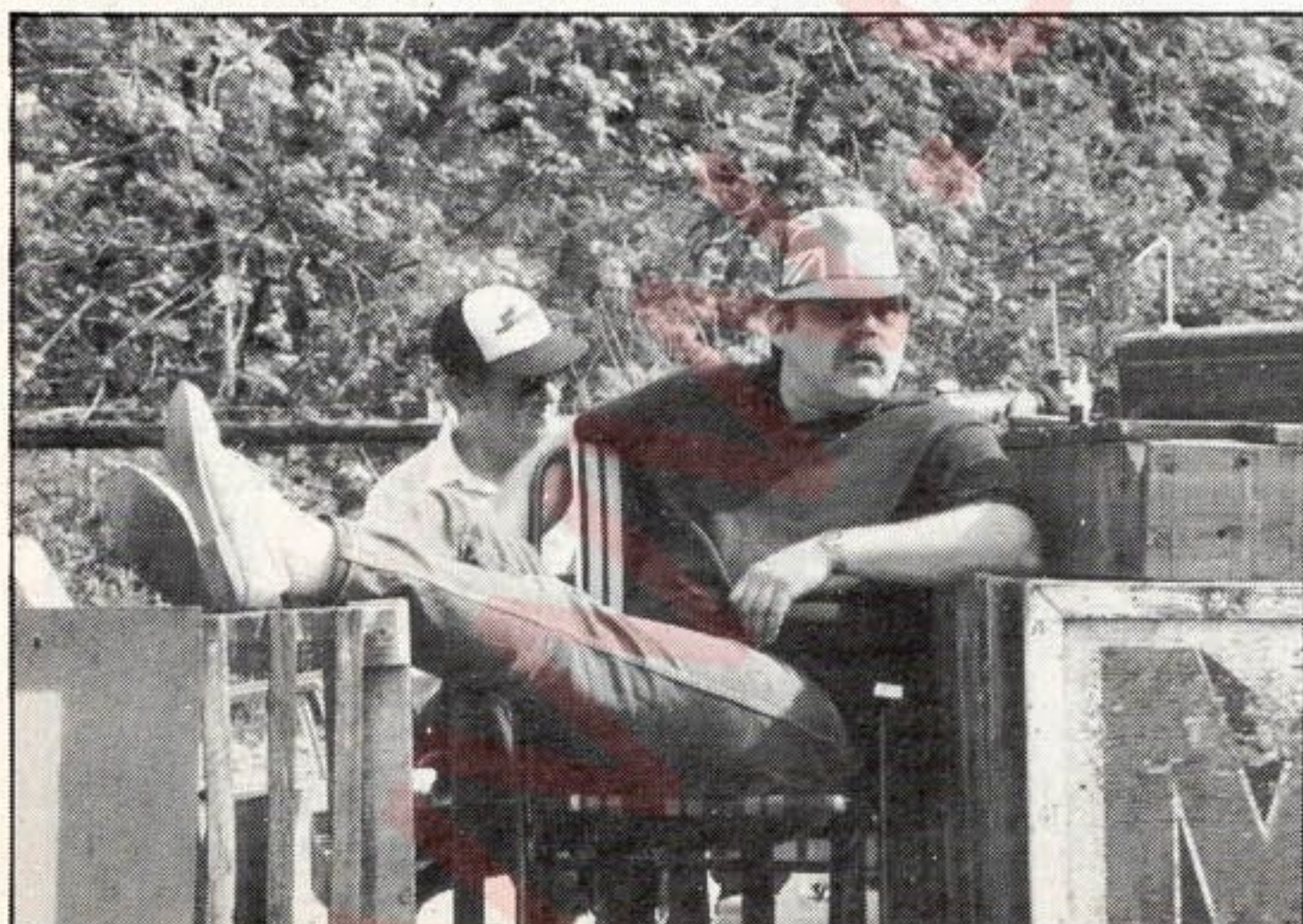
Heat 9 once again saw Bob Errington fly off for fourteen laps until the engine this time expired completely leaving Paul Cook on a twenty but Steve White upped the stakes once again by reaching twenty one! The last heat again saw a ding-dong battle between Dave Dixon and Gary Culver with Dave coming out on top and narrowly beating Steve, to record the quickest 21 with Gary, the only other person on this level of score.

As usual there was a good break for lunch which allowed that final bit of tuning to several people although there is always a mass of people trying to practice and it sometimes becomes very difficult just trying to get on the rostrum. Nevertheless the last round got underway, this time Mark Ashton didn't gain another lap but did take over 13 seconds off his previous best. Stuart Wilcox could only find three seconds in heat two but John Quinton found three laps to go onto sixteen. Alan Harman did it again by this time squeezing a twenty lapper out of his Phoenix to show just how capable he has become at one eighth over just the one weekend!

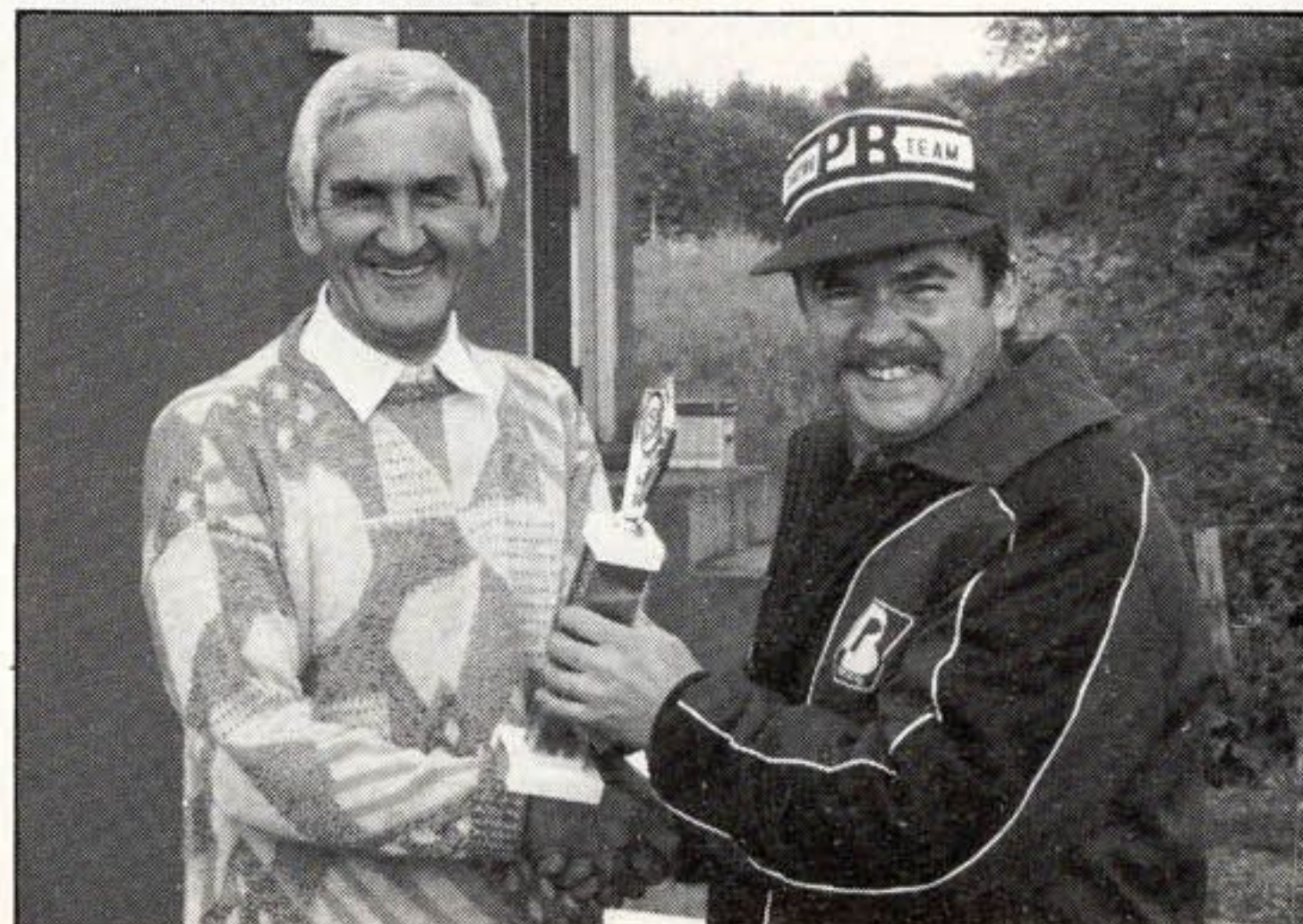
Rob Abbiss, Ray Killgallon, Bruce Edwards and Mike Jackson all moved up onto nineteen laps as we entered heat eight, although this was strangely slower than before with only Dave Preston really improving onto a twenty. Heat nine and Steve White got away with Bob Errington glued to his rear bumper, this time Bob's engine sounded better after having been rebuilt, courtesy of Dave Dixon.

Bob got passed Steve in the banking and the SG certainly looked quick enough to go FTD. What could go wrong now? The answer, quite simple really, it rained — hard at that to add nearly 8 seconds a lap. All the drivers pulled off save Bob who stood up there for a few more laps hoping that the five minutes was imminent, but no. So that curtailed the qualifying as no-one even

Dave Dixon caught during a moments active marshalling.



Mike Jackson, Formula 'A' Winner.





Nigel Sayles picks up what could be the last SG Open Trophy!!

Murray Collins winner of Formula 'B' Final with PB Phoenix and Sports 'A' Final with SG Space, busy weekend.

bothered for the last heat. So the final qualifying order was; Dave Dixon, Steve White, Gary Culver (on 21's), Paul Pagdin, Chris white, Bhajan Panasar, Steve Hart and Dave Preston (on 20's). Alan Harman had qualified in tenth and was only three seconds off of the 'Open' — next time maybe Alan!

The Renault Five series race has become more of a disaster than the Sierra as not only were there only two contestants, but there are not even any Renault Five body shells!

The 'C' final, in these damp conditions, produced a new winner in the shape of the Kyosho driven by Stuart Wilcox who scored a creditable 45 laps, six laps up on second place Keith Ayres and Mark Ashton third. Pete Taylor enjoyed victory in the 'B' final from Dave Jones and Amal Mahatme.

The 'A' final produced one of the best finals as Murray Collins, now back driving his SG Space, led from start to finish chased all the way through by Mike Jackson with his PB Phoenix who finished just one lap behind Murray with Chris Edwards six laps back in third.

The Open started with a damp track but with the possibility that it could dry or, looking at the coming black clouds that it could rain. Most drivers elected to go on MRCs but Steve White opted for Arrows Whites on the hope that things would go that way. Dave Dixon led away with Bhajan Panasar second and Chris White third just ahead of Gary Culver. By seven minutes, the order was the same except that Gary had moved up to second and he was gradually catching Dave.

By half distance it was raining again and Gary took the lead as Dave pitted for fuel. A couple of minutes later Gary pitted but this time he was able to exit before Dave passed the pits, thus Gary was not in the driving seat. Bhajan was still holding onto third until a crash knocked the silencer off causing him to pit for repairs, losing him several laps. Dave's car was now slowing and he had apparently 'blistered' his MRCs, as a pit stop followed to change onto new ones. So Gary calmly drove on to win his second Sports race in succession with final positions as follows:-

1st	Gary Culver	Serpent Spirit	104
2nd	Dave Dixon	PB Phoenix	100
3rd	Chris White	PB Phoenix	99
4th	Paul Pagdin	PB Phoenix	97
5th	Bhajan Panasar	Serpent Quattro	97
6th	Steve White	Serpent Spirit	80

pent and PB in the Open finals although there were still only three Serpent Spirits in attendance, four if you include the one left hand drive version present! This could soon be changing as Walt Bailey was trackside on the Sunday with his fresh load of kits and I can tell you that they didn't stay there long as a multitude of drivers queued up to get theirs. The next round at Mendip in July should see more 'Spirits' then possibly we may see a redress of balance in the finals? More on that next issue.

What's On

August

- 7th — European Champs — Italy
- 7th — Southampton Sports Club round
- 13th/14th — BRCA Round 8 F1/Sports — Aldershot
- 14th — Aberdeen Club Round
- 21st — Mendip Saloon Club Round
- 27th-29th — BRCA National Championships, Saloon, Formula, Sports at Halifax

September

- 4th — Southampton Sports Club Round
- 4th — Mendip Sports Club Round

- 4th — Crieff Club Round
- 10th/11th — BRCA Round 10 F1/Sports — Lilford

To all those drivers competing in the European Championships in Italy — we wish you all luck and a safe journey. 1,000 miles each way is quite a distance!

Serpent Spirit

This month we will start to look at the new Serpent Spirit which has just been made available to us mortals. The first release came packaged in a plain cardboard box and had no instructions, but since then things have progressed and both the box and the instructions, incidentally, are in A4 size book form and are quite comprehensive including four pages on setting up the car, written by Rody Roem no less.

On opening the box the first thing that greets you is that the chassis appears to be already built. Which it is, but does not include any of the metal components, diff, pulleys, belts, drive shafts, etc. So this unit will have to be dis-assembled to build these in. Still a nice idea though as it is the quickest way to see which moulding goes where, which in itself is important as most of these mouldings are 'handed', ie. the left front upper wishbone.

The new Serpent Spirit comes Part Assembled and well bagged up.



All the other components come in one large plastic bag which, when opened, reveals sixteen smaller bags each of which belongs to a certain area, ie. the differential is bagged separate to the gearbox and so there is no possibility of using the wrong screws!

The differential itself will be familiar to most of you, as it is the now well proven Serpent 'Ball' diff. Here a set of steel ball bearings are sandwiched between two hardened steel washers with a large nylon moulding acting as the bearing cage and also the rear pulley block. The differential is an adjustable one but can easily be set by hand once the car has been assembled. Basically, if you can make the diff slip by holding the drive gear and trying to turn the rear wheels, then it will certainly slip under the power of the engine. Do not over tighten though as this will reduce the smoothness of the differential action.

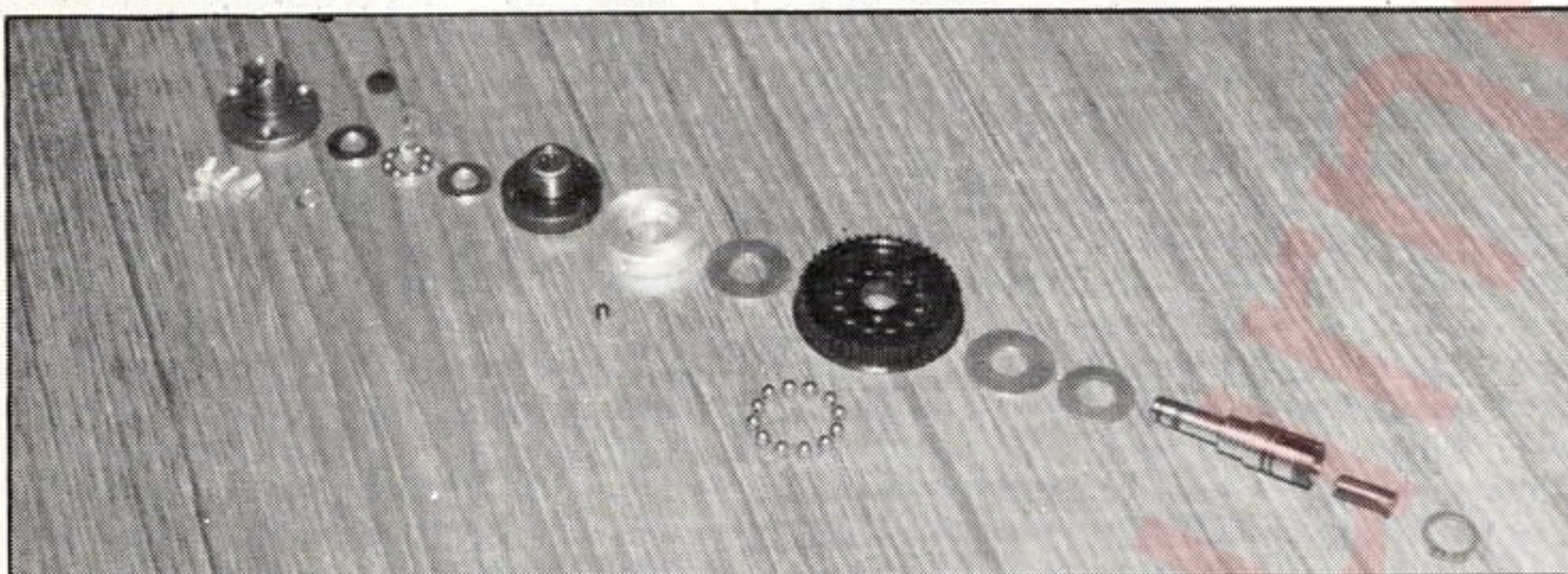
The nylon plug that goes up the centre of the diff should be slimmed down so that it is any easy Failure, to do this could lead to some strange problems. Also it appears



Above, that large plastic bag splits into 16 separate component bags.

Below, 31 separate parts make up that lovely ball diff.

Bottom, the back end in course of construction.



that the pad should be shortened very slightly to allow a fuller suspension movement once the drive shaft has been installed. Best here, when ready, is to shave off a couple of thou at a time with a sharp knife, then re-fit and try. Hence if the pad is a tight fit this operation alone becomes move difficult. The same operation is required on the other end of the diff where the supplied plastic pad is best discarded and a rubber one made from half a grommet, or similar, to again allow a fuller movement.

Before this of course, the bearings have to be inserted into the side members into which they should be well sat. Any misalignment will of course add to the friction and also wear, of the bearings. A smear of grease on the drive cups is a good idea but this does have the disadvantage that it will also collect dirt, therefore it should be cleaned at regular intervals.

The wheel bearing carrier is also marked with an arrow to indicate which way up it should go. The instructions say that by re-

versing this you can alter the rear ground clearance. This is true but it does not alter things by much. Suffice it to say that with arrows pointing up you get most ground clearance which is good if you are likely to be using teeny weeny tyres!

Next issue we will continue with the building process and perhaps have more knowledge about anything else that is relevant at the building stage.

Points List

At this stage in the season a break has occurred due to the demise of the Wrexham round. This gives the opportunity to list the top drivers in each of the classes as at June 1988.

The Saloon series has two listings, one for the British series Championship and the other is a qualifying list for next years Euro champs in Scotland. Note that there is only one more Saloon round to be run which is at Halifax at the British Nationals on August Bank Holiday weekend.

BRCA Saloon

1	Dave Dixon	57 Points
2	Nigel Sayles	50 Points
3	Steve White	46 Points
4	Steve Whitting	40 Points
5	Gary Culver	36 Points
6	Paul Pagdin	32 Points
7	Chris White	30 Points
8	Bhajan Panasar	29 Points
9	Sean Jackson	27 Points
10	Neal Woodhead	26 Points

1989 Saloon Euro

1	Steve Whitting	37 Points
2	Dave Swift	33 Points
3	John Russell	23 Points
4	Steve Hart	20 Points
5	Bhajan Panasar	20 Points
6	Paul Cook	19 Points
7	Mike Hooper	17 Points
8	Sean Jackson	17 Points
9	Murray Collins	16 Points
10	Ian Cowieson	16 Points

Ford Cosworth Series

1	Roy Douch	53 Points
2	Colin Straus	38 Points
3	Sean Douch	34 Points
4	John Russell	20 Points
5	Dave Cole	20 Points

Renault Five Series

1	Roy Douch	58 Points
2	Sean Douch	55 Points
3	Steve Cole	20 Points
4	Damon Gunn	20 Points
5	Steve Spurway	20 Points

Formula Series

1	Nigel Sayles	53 Points
2	Chris White	51 Points
3	Dave Dixon	48 Points
4	Steve White	47 Points
5	Neal Woodhead	40 Points
6	Paul Pagdin	39 Points
7	Steve Hart	33 Points
8	Dave Preston	29 Points
9	Gary Culver	27 Points
10	Steve Whitting	25 Points

Sports Series

1	Chris White	72 Points
2	Steve White	69 Points
3	Dave Dixon	69 Points
4	Gary Culver	68 Points
5	Nigel Sayles	40 Points
6	Dave Ashton	38 Points
7	Paul Pagdin	35 Points
8	Steve Hart	33 Points
9	Dave Swift	31 Points
10	Bhajan Panasar	30 Points

That's it for now — more next month.



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Radio Race Car

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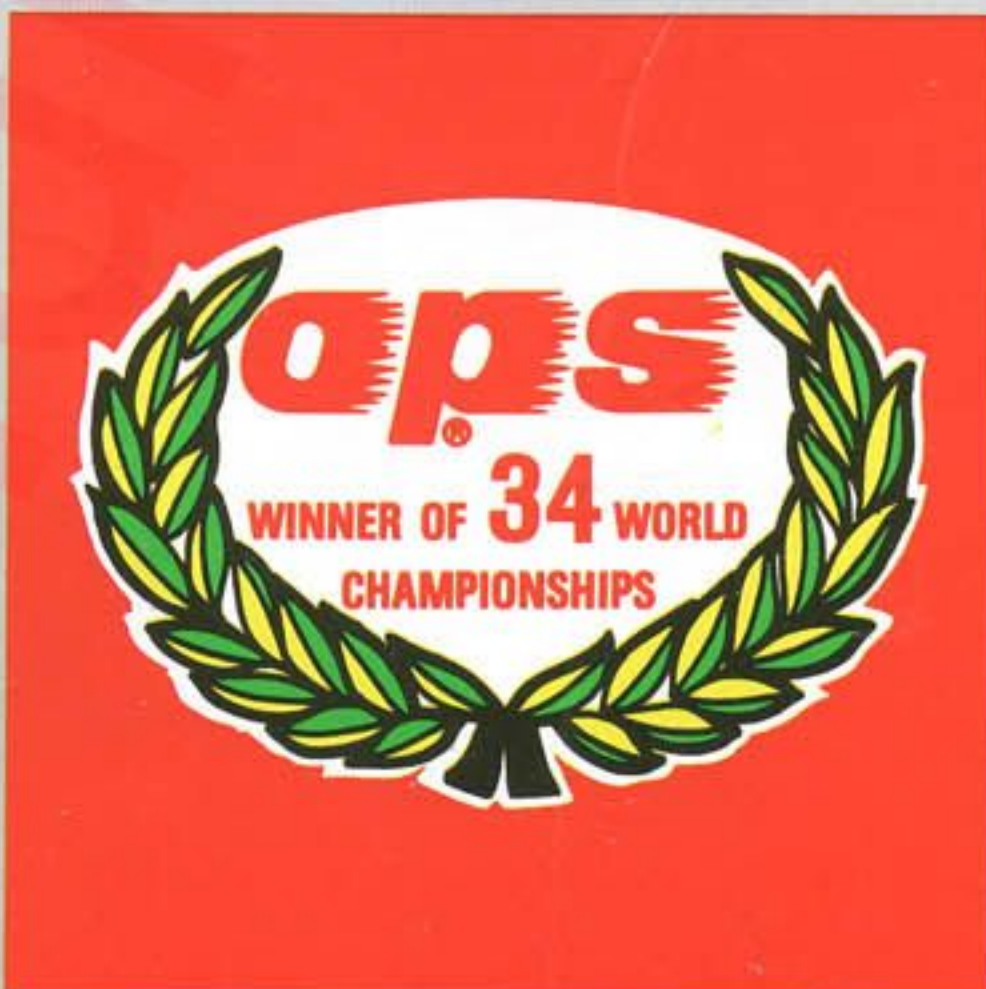
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OP8838 (OP8833)



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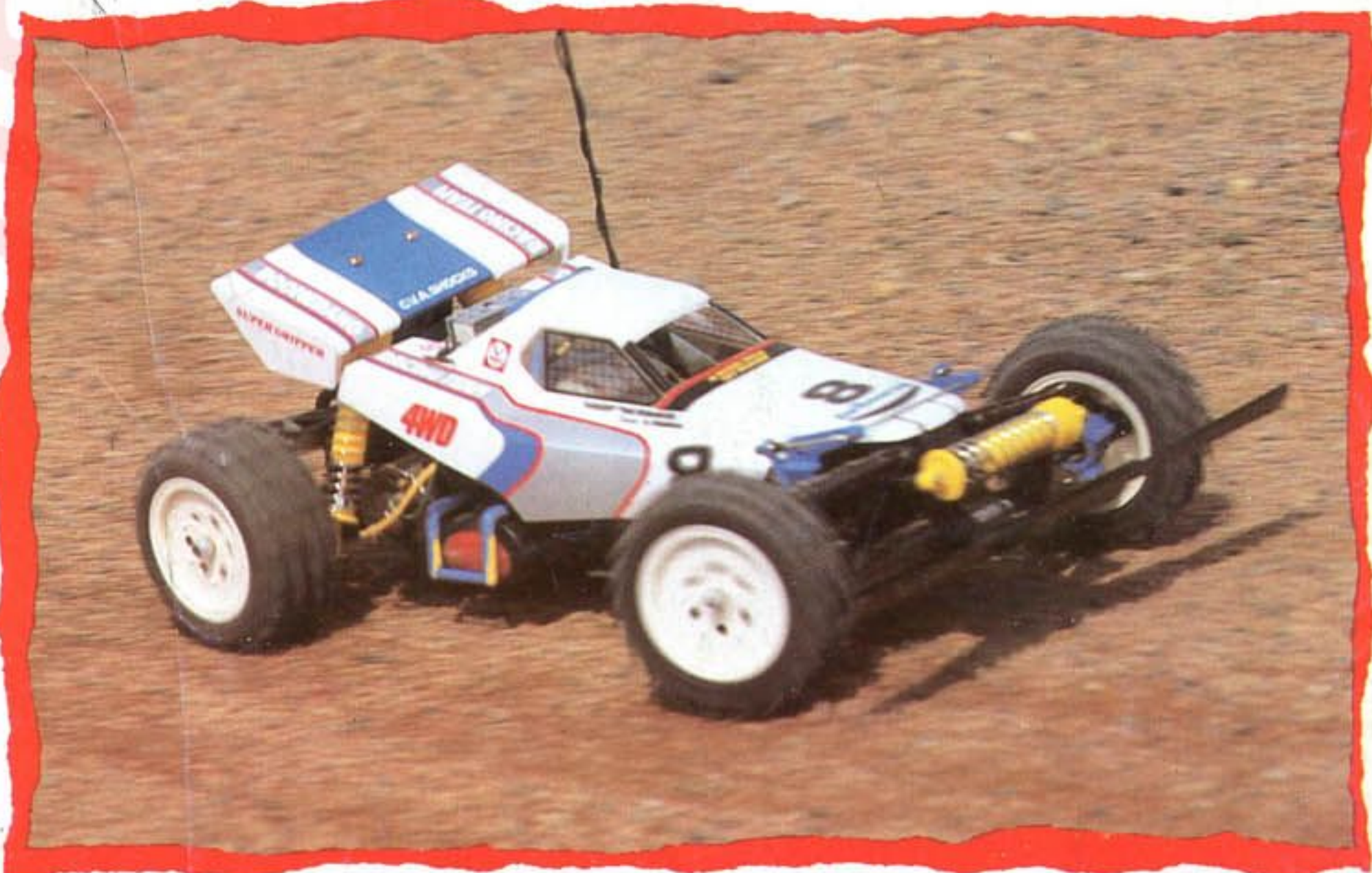


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