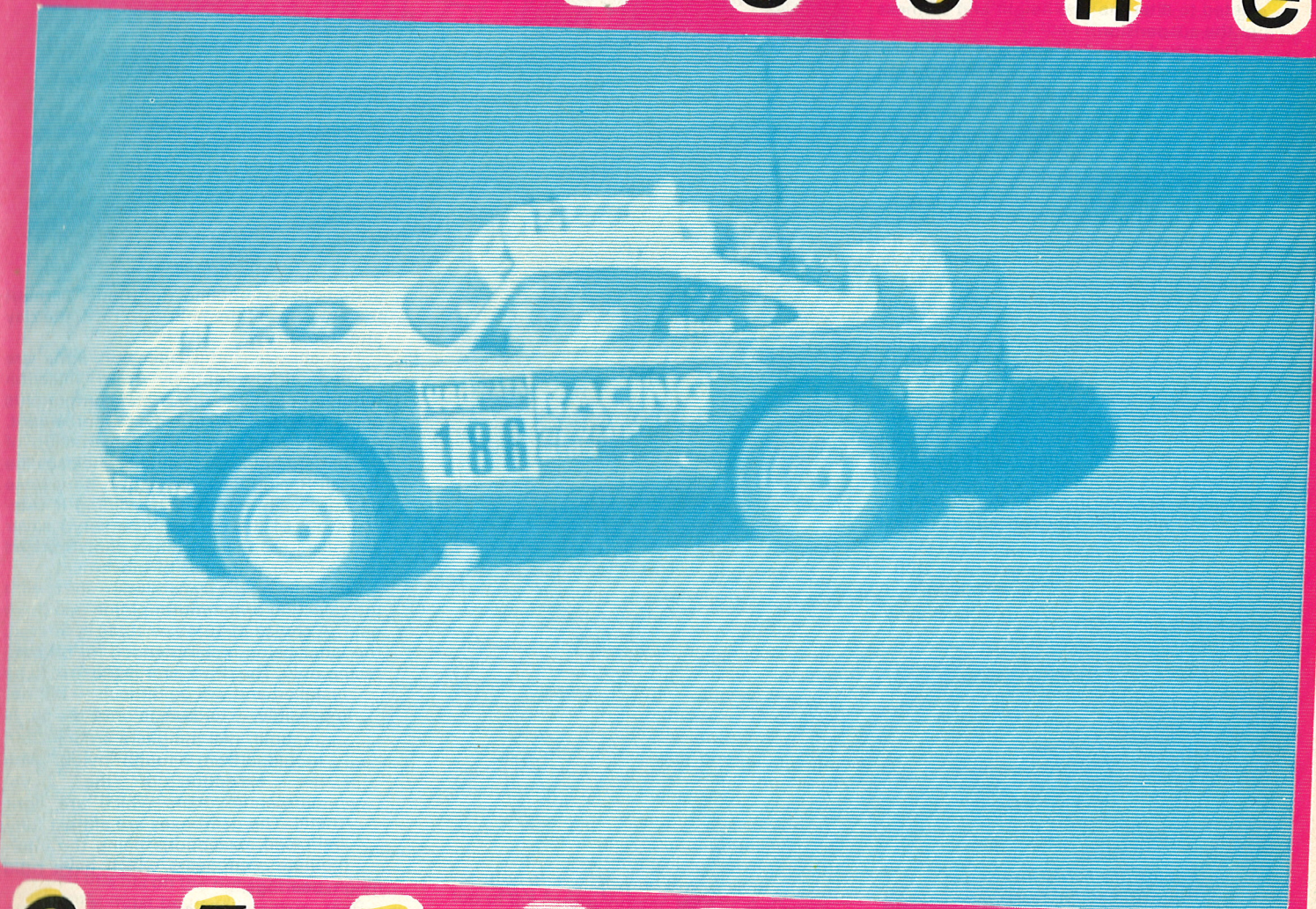


# P o r s c h e



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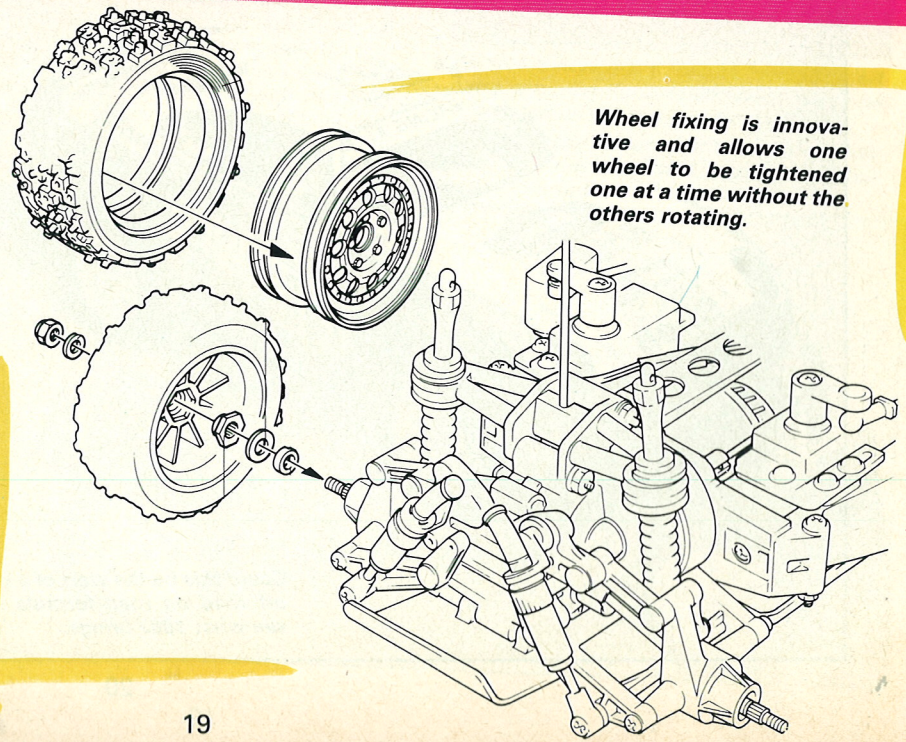
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**Tamiyas new 1/12 scale Porsche 959, is reviewed in depth by GORDON BATT.**

Some years ago, Tamiya themselves might have been surprised by the response created by a couple of motorised scale models introduced into their range of precision scale models. From such an innocuous beginning came the Rough Rider, Sand Scorcher and the whole field of 1/10 scale electric off-road racing, presently the most popular form of model motor sport.

Can Tamiya be about to do it again? There hasn't been anything as radical as this new Porsche for several years and many enthusiasts may well be looking for something new to test their racing abilities. From its given scale one might at first believe that the Porsche is an addition to the variety of 1/12 scale on-road racing cars, but even the most cursory inspection reveals that this is a well designed off road car with full independant suspension giving a sensible ground clearance and a well protected transmission providing four wheel drive with differentials front and rear. The model is supplied with knobbed tyres for off road use but slicks are available for road racing.



*Wheel fixing is innovative and allows one wheel to be tightened one at a time without the others rotating.*

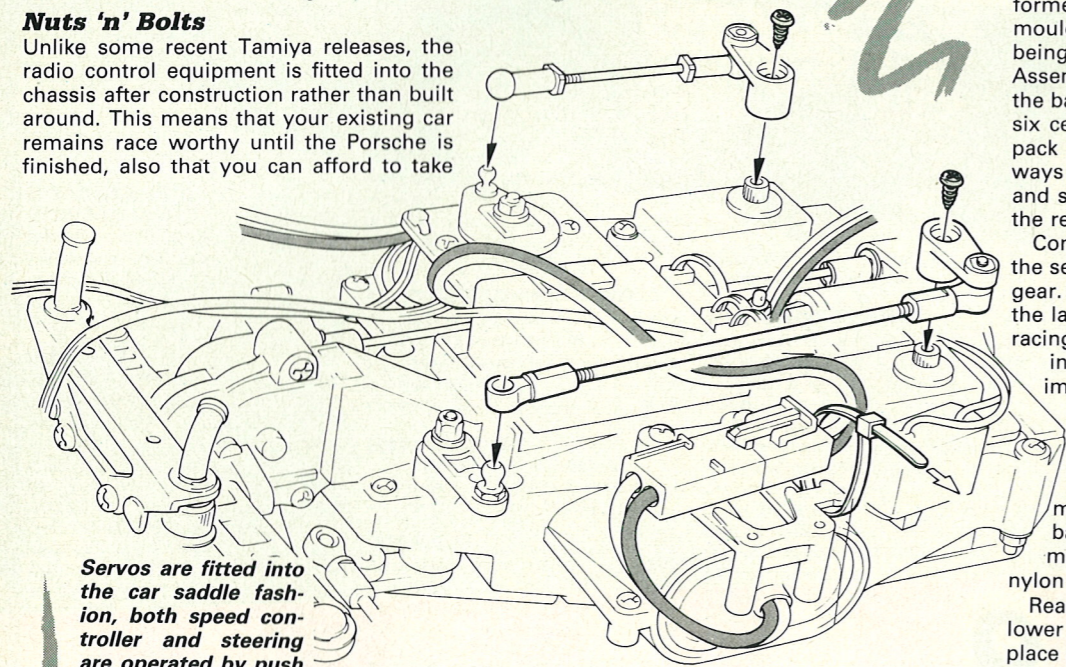
Gear ratio is fixed — unless you are willing to dismantle the rear gearbox between races — but the rear suspension can be adjusted to alter the ride height and stiffness of the suspension.

Described as an "on/off road rally racer", the Porsche represents a well thought out compromise and one's mind naturally turns to how this new type of car can be raced. Perhaps a competition could be devised where the first two rounds of racing could be 'on road' and the next two 'off road' and the results aggregated, or alternatively used to select the competitors for a final raced on a surface chosen by the flip of a coin. Many readers will have their own ideas about how this exciting new class of car can be raced — why not write in with your ideas.

That's enough about the potential of the car, time for some reviewing.

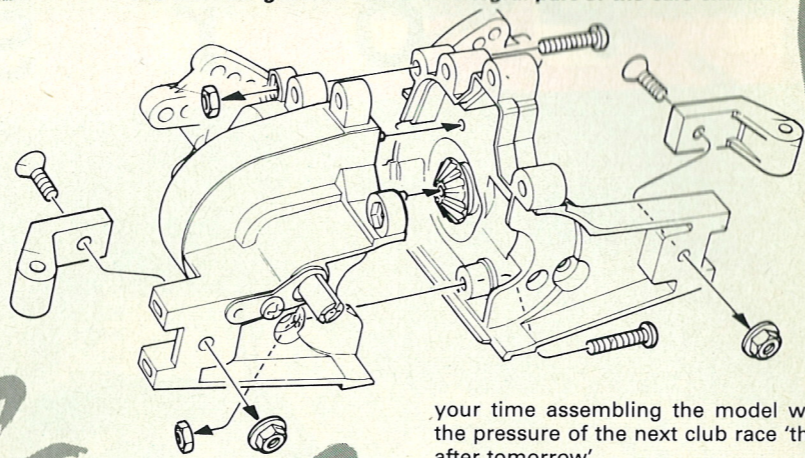
**Nuts 'n' Bolts**

Unlike some recent Tamiya releases, the radio control equipment is fitted into the chassis after construction rather than built around. This means that your existing car remains race worthy until the Porsche is finished, also that you can afford to take



Servos are fitted into the car saddle fashion, both speed controller and steering are operated by push rod.

The 959 rear gearbox forms an integral part of the cars chassis.



your time assembling the model without the pressure of the next club race 'the day after tomorrow'.

The chassis and suspension arms are formed almost entirely from injection moulded plastic, a few metal components being provided for strategic reinforcement. Assembly starts with the construction of the battery holder, which fully encloses the six cell Racing Pack nicad. The transverse pack is easily removed by sliding it sideways out of the chassis. The servo saver and slave are then installed and surprised the reviewer with ease of movement.

Constructing the transmission starts with the selection of the motor pinion and drive gear. A choice of 16:41 or 18:40 is offered, the latter being recommended for on-road racing only. The drive gear is the first to be installed and will be difficult — but not impossible — to change once the car is built. All the gears are injection moulded from a tough nylon, with the exception of the bevel differential gears which are light metal. The gearboxes are almost fully ballraced, exceptions being the intermediate spur gears which have rigid nylon bearings.

Rear suspension consists of a large lower plate that holds the upright firmly in place and protects the drive shaft and universal joints from impact damage. The upper end of the upright is held by a single arm and the builder has a choice of three different arms to change the camber angle.

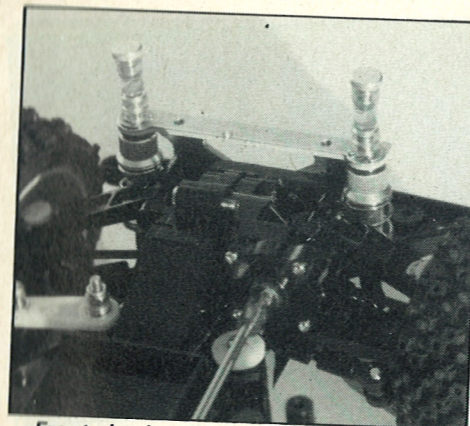
At this stage the mid mounted motor is installed. As standard the kit includes an RX-540VZ Technigold tunable motor, which will open a whole new can of worms as far as the rule-obsessed are concerned but does provide a way in which the car can be set up to suit long or short heat times in the absence of easily changed gear ratios. The motor is trapped between the rear gearbox and the centre of the chassis when these two parts are bolted together and when the model is completed the motor can be released by removing five bolts.

The front gearbox is easily assembled, having internal components basically the same as the rear. Suspension consists of single wishbones top and bottom with two piece sockets for the king pin ball joints. As on the rear, ball and socket universal joints are employed on the drive shafts.

A novel method is employed to secure the front gearbox. This slides into a groove moulded into the front of the central chassis part and is held in place by a single small securing plate. As the front gearbox is slid into place the hefty 3mm dia. propeller shaft is trapped between the gearboxes



Could this be the start of a new off road on road formula lets see what 1987 brings.



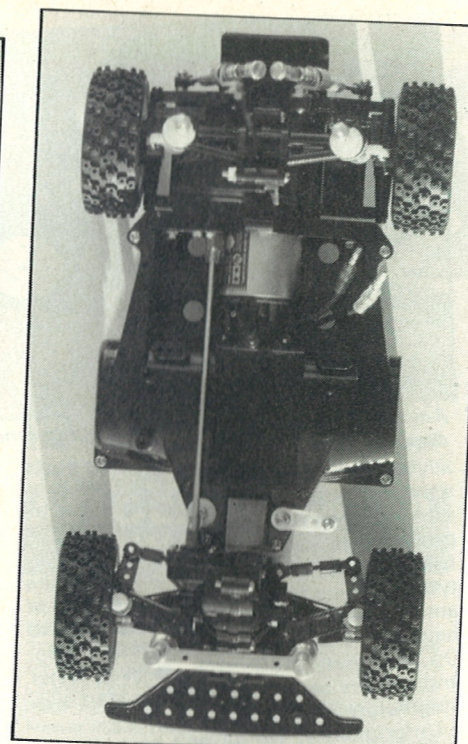
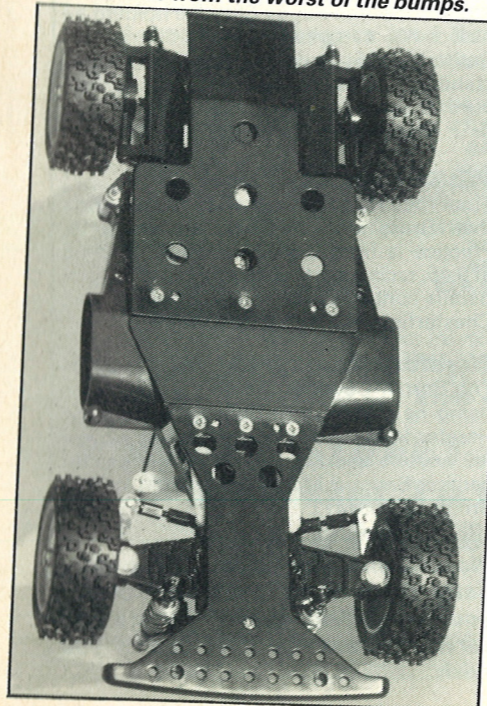
Front shockers are constant rate coil over oil units that iron out the bumps and soak up rough terrain.

the universal joints are protected by short lengths of vinyl tubing.

At last you have something that looks like a car chassis — well, at least its got a wheel hub at each corner — and the large, flexible plastic chassis guards can be fixed to the underside.

Now the neatly thought out damper units can be made up installed. These are quite conventional but cleverly designed, with a milled flat on the upper section of the piston rod to allow the damper oil to flow past the rod up into the vinyl tube reservoir on top of the damper unit. This tube is elastic enough to accept the changing volume of the damper contents (you can actually see the tube swelling up as the damper piston is pushed in) and its transparency means that any air bubbles in the damper can be clearly seen. The front dampers become fixed rate coil-over-shock units while the rears are mounted separately from the rear springs.

A three speed forward and three speed reverse mechanical speed controller is provided this fits on the right of the car and apparently must be used, for there seems to be little scope for modifying the kit's layout to suit an electronic type. The controller is wired up to suit either a BEC receiver or voltage dropper (there is nowhere to stow a normal 4.8 volt receiver battery) and also a two piece front to back skid plate protects the 959 from the worst of the bumps.

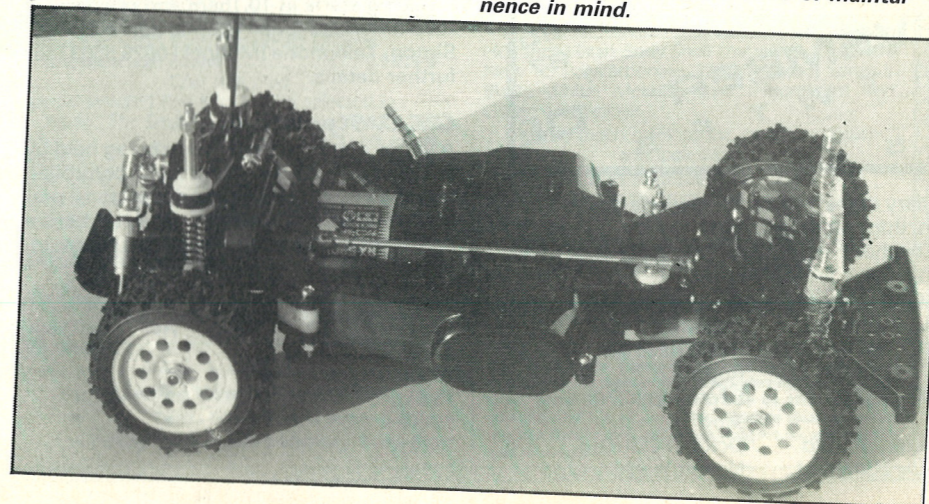


The Technigold 540VZ drives all four wheels through the rear gearbox via a chromed steel propshaft.

has a lead for the headlights. (Racing in the dark — why not!) The resistor for the speed controller is fitted with the unusual double decker front bumper — the upper one protects the chassis but is inside the bodyshell, the large lower one is ugly but keeps the bodyshell tidy — and the car is ready to be fitted out with radio.

R/C installation is simple. The servos are fixed in adjustable mounts either side of the motor, speed control to the right and steering on the left, and the receiver sits on top of the battery holder, held in place with servo tape. A switch holder is fitted right next to the nicad plug so one has no excuse about forgetting to unplug the battery when the car is not in use, or trying to operate an unplugged car. Alternative servo arm's etc., are provided to suit Futaba, Sanwa and Acoms radio.

The wheels feature one piece hubs with semi-pneumatic tyres that have to be cyano'd into place. A hexagonal section brass insert fits onto the splined section of the axle, which means that with this 4wd car you can remove or fit one wheel at a time without struggling to stop the whole transmission from moving.



**Finishing Off**

In the vast majority of cases the body of a model car is just hurriedly painted and bolted on, but the Tamiya Porsche 959 deserves better than this. Here Tamiya will be accused of making a dreadful retrograde step for they have produced a model racing car that actually looks like the real one. Such heresy!

Actually, the Porsche's chassis cover is a lovely piece of work and any modeller who puts just a little more effort than usual into this part of the model will end up with a superb looking vehicle.

After carefully trimming and washing the bodyshell the first step is to mask off the windows and the headlight covers of the car — from the inside, naturally, as we are dealing with a polycarbonate body. Mask around the areas that will be black painted on the inside and paint these first, using Tamiya Acrylic Paint. When dry, remove the masking, then we would suggest deviating from the instructions. Before painting the blue and white areas, add the red and gold cheat lines along the body. (Hint: cut out the transfer, remove all the backing paper and dip all the transfer in water with just a drop of washing up liquid added. This will allow the transfer to slip — just a little — and help it to conform to the body contours. When it's in place, rub it down firmly with a paper towel and it's then stuck



Above: Bodywork deserves that little bit extra care, the Porsche 959 cries out to be decorated as the original full size car.

Below: Ready to run this 1/12 scale car has been well designed with ease of maintenance in mind.

for good.) With the cheat lines in place the blue paint can be applied, using the middle of the red cheat line as the demarcation. When dry the white can be painted on, then the details painted in (red and orange lights,) silver intercooler and bonnet panels and matt black grilles.

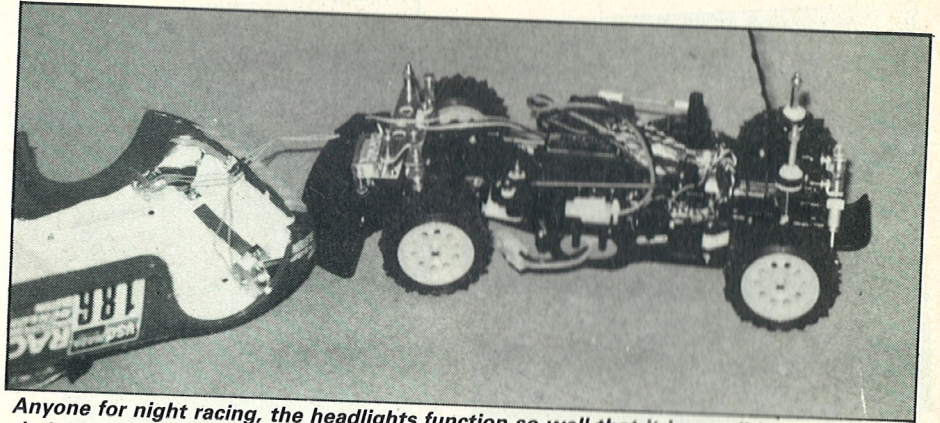
The interior of the car consists of a vacuum formed base showing the crews' arms and shoulders plus moulded parts for their heads. Painted up and added, the interior makes the car come alive. Some exterior details from injection moulded plastic are added; rear spoiler, exhausts, brake lights, mirrors and of course, the headlights. These are cleverly designed with high intensity bulbs in chromed plastic reflectors and are carried by the bodyshell.

With the remaining transfers added and the bodyshell clipped in place, the Porsche 959 really looks the part and almost cries out to be taken to the track.

**Porsche Performance**

After a few tentative shunts around on the carpet — which left dragster style take off marks in the pile — we tried the car out on the office car park. This was the first time we have encountered a model that literally sprayed gravel all over the place, such was the power it was trying to lay down. Cornering at speed on such a loose surface was almost a joke, for the Porsche just drifted around, wagging its tail and liberally peppering everything within twenty feet. It all looked very spectacular but not really representative of any likely racing.

We took the car to some more appropriate surfaces for proper testing. On grass — which was a little longer than would usu-



**Anyone for night racing, the headlights function so well that it is possible to drive in the dark.**

ally be found on the track — it proved to be very fast and directionally stable but almost impossible to sharply turn at speed, preferring to roll enthusiastically. In fairness, this was no doubt partially due to the tyres gripping too well, but some form of anti-roll bar — which the car appears to have provision for — would certainly help. On bare earth the Porsche is even faster and corners better, for the tyres start slipping before the car rolls.

Unfortunately, we haven't been able to properly test the car on tarmac as the optional slick tyres were not available at the time of writing.

The headlights are a bit 'gimmicky', but do project quite a positive beam, enough to allow obstacles to be driven around in the dark. It might be an amusing experiment to turn the lights out for a minute or so in an indoor race, or have outdoor race after dark at club level, but we can't regard the head-

lights as a major feature of the car. Anyway, ours burnt out pretty quickly and already require replacing.

**Summary**

The thing that gets you most of all is the sheer speed of this model — its almost unbelievable, the way it blasts off from a standing start and disappears into the distance. Its cornering on anything but ultra short grass or naked earth leaves something to be desired, but the opportunities for improvement are clearly there.

Last but not least, it looks like a real car, which will no doubt attract a lot of new racers.

Nice one, Tamiya, let's see how this idea will grow.

Available from your nearest Tamiya stockist or from Richard Kohnstam Ltd., 13-15a High Street, Hemel Hempstead, Herts, HP1 3AD. Price around £155.00.

**DIARY DATES**



Diary dates this month have started to come in thick and fast. First on the list is the Chesham off road club their race meeting dates are as follows:

|                  |                                     |
|------------------|-------------------------------------|
| March 29th (Mod) | August 30th Std                     |
| April 26th Std   | September 13th Radio Race Car Round |
| May 31 Mod       | September 27th Mod                  |
| June 28th Std    | October 25th Std                    |
| July 26th Mod    | November 29th Mod                   |

Race entry fee is £4.00 and closing date for entries is each Wednesday preceeding the race date. No telephone entries accepted, all monies should be made payable to Chesham off road club. All enquiries to Peter Willoughby, 6 Hodds Wood Road, Chesham, Bucks.

**Tansley Off Road Club**

Tansley off road club is continuing its second season of racing with the following list of dates for 1987 league racing events.

- April 26
- May 17
- June 7
- July 5
- July 26
- August 23
- September 13
- October 4.

Racing starts at 10.15am and pre entry is recommended for all events. Contact Roger Simon, Telephone (Matlock) 0629 55037 for further details.

**G.E.C. Stychfields**

A series of mini nationals are being held by the G.E.C. Stychfields radio controlled model car club. The below dates are all pre-entry, all entries must be received before 6p.m. on the Saturday preceeding the meeting.

|            |      |      |          |
|------------|------|------|----------|
| 18 January | 1/12 | 1/10 | Modified |
| 1 March    | "    | "    | "        |
| 26 April   | "    | "    | "        |
| 13 Sept    | "    | "    | "        |
| 11 Oct     | "    | "    | "        |
| 15 Nov     | "    | "    | "        |
| 13 Dec     | "    | "    | "        |

For further information please phone John Robson 0785 662242.

**York Off Road Car Club**

Are hosting a major two day championship. The event is for 1/10 scale, two and 4wd cars and will be held over the weekend of 28/29 March at the sports and leisure centre at Acomb, York. For further details contact Derek Curzon. 0904 707097.

**Brinsworth Buggy Club**

The Brinsworth Buggy Club are holding an indoor 1/10 carpet meeting at Clifton Hall Rotherham, S. Yorks on March 8. B.R.C.A. standard rules apply. Entry fee £4.00. Further details from E. West 0709 376257 or J. Stringfellow 0246 37357.

**White Hart Rallycross Club**

The White Hart Rallycross Club are holding their Brass Monkey Finals on March 15. Practice is from 8.30a.m., drivers briefing at 9.45, racing starts at 10.00a.m. For further details contact Derek Bailey, 2 Bank Street, Chesterfield S43 1LZ. 0246 35796.

**Herefordshire Model Aero Club**

The Border Counties Model Spectacular is being held at Eastnor Deer Park, Ledbury, Herefordshire over the weekend of August 8/9 anyone seeking further details should contact Bernard Morris 0989 63991 or Phil Smith 056 884423.

**Please remember to send your diary dates to us at least a month before your event date, diary dates is a free service, please use it whenever you wish.**