

the undisputed LEADER OF THE GANG?



New rear end including anodised sideplates and graphite shock tower.



the thrust races (you would be amazed at just how much difference a clean, efficient thrust race makes to the smoothness of a differential), so the fact that not a lot of dust and dirt can get into the thrust races or diff balls is a major plus point!!

Another interesting feature of the Boss Cat front end is that by simply removing four very easily accessible screws, and two pins, the top of the front gearbox can be lifted off, and the differential unit accessed.

This is a much better design than that of the Pro Cat as any adjustment can now be made in a fraction of the time. Having said that, the new differentials are so good, they don't really need any regular maintenance. A good clean every ten meetings (yes, meetings not runs!!) or so should be enough.

Belt tension is easily adjusted on the Boss Cat, because the front differential housing is on a sort of 'cam', which locks into the front gearbox housings. By simply picking up the diff. unit and turning the cam round, you can slacken or tighten the tension of the Kevlar belt. Simple — but very effective.

One of the most unique features of the original CAT was the 'crashback' front suspension. It has saved a lot of racers a lot of races, when their cars would have otherwise broken. Because it is a popular design feature of their 4WD cars, Schumacher have decided to retain a (re-designed) crashback system for the Boss Cat.

As you may have seen in our preview of this car in last month's issue, the Boss Cat has new design front hub carriers, which allow rear width wheels to be fitted to the front of the car, should you so wish. This is especially useful on very smooth, dusty, dirt type tracks, where the larger front tyres 'pull' the car around the corners.

With the exception of the Cat SE, nearly every single part on the Boss Cat is new, with regards to a 4WD Schumacher buggy. By this I mean

For a start, the chassis, shock absorber tower, rear suspension pivot brackets etc, are all made from some of the nicest looking, stiffest graphite available. This is a far cry from the GRP chassis' that have been used on all Schumachers 4x4 kits to date.

The position of the batteries on the chassis has been altered, and in my opinion, improved. They have been moved in towards the centre line of the car, and there is now space made for four cells at each side of the car for different weight distribution, either forwards or backwards.

The actual design of the chassis is what has become known as 'belt over chassis transmission layout'. Prototypes of this system were first seen at the 1/10 European Championships at Southend. It effectively lowers the centre of gravity of the car because the batteries and radio gear are lowered, to allow the belt to run over the top of the chassis instead of underneath it, as on the CAT. The motor however, does sit higher up, but the combined weight of the batteries and radio gear is greater than that of the motor, so there is a slight advantage.

The front end of the new car is nothing short of excellent. It has been totally redesigned. The



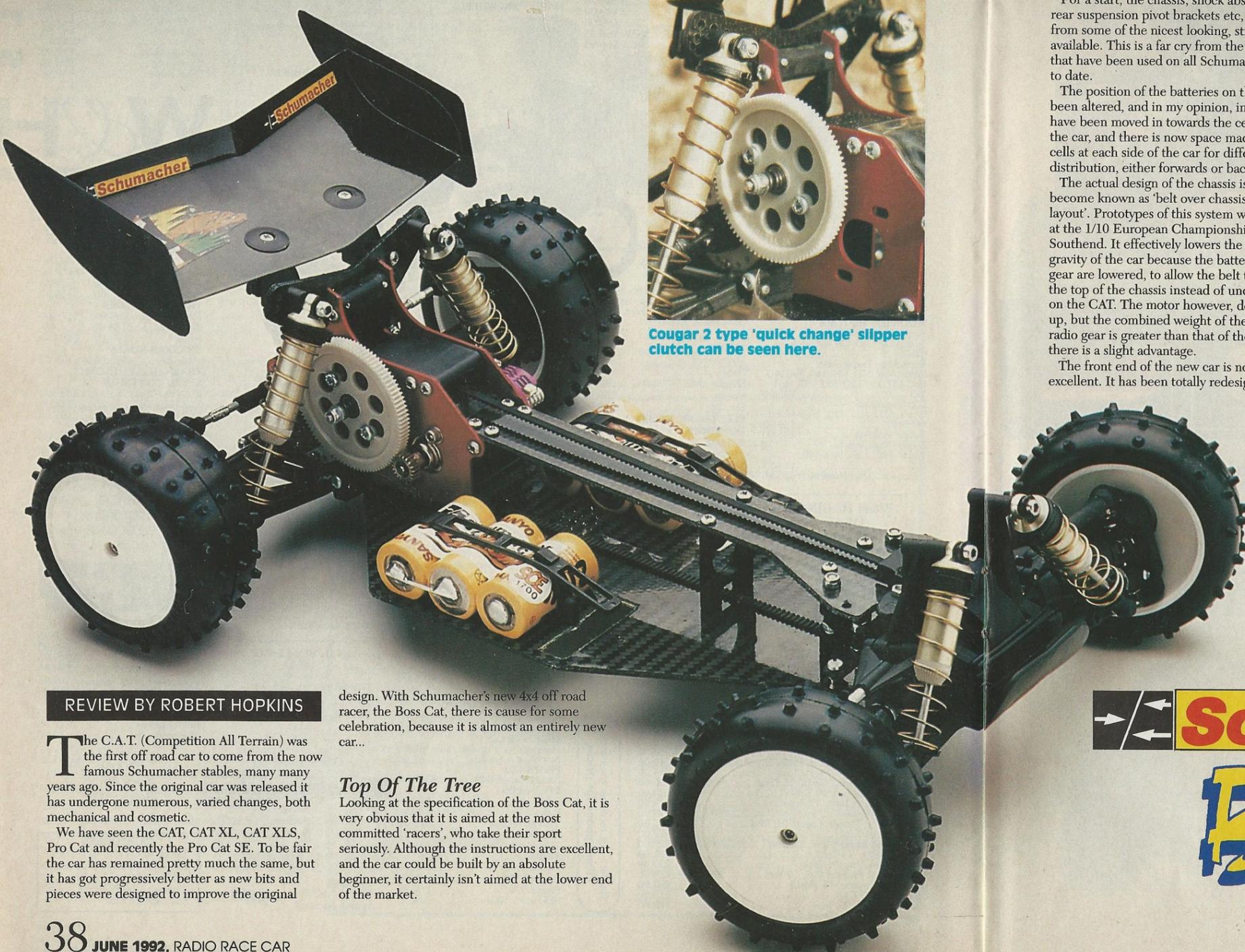
Cougar 2 type 'quick change' slipper clutch can be seen here.

front end of the Boss Cat is fully adjustable, both the caster and camber can be altered for different handling and track characteristics. The new design differential, similar to the type found on the Cougar 2, has been included in both the front and rear gearboxes.

The differentials utilize tungsten carbide balls, and if correctly assembled, they are easily as smooth as any other diff. on the market. The other impressive feature about the new differentials is that they are fully sealed, as are

Schumacher

BossCat



REVIEW BY ROBERT HOPKINS

The C.A.T. (Competition All Terrain) was the first off road car to come from the now famous Schumacher stables, many many years ago. Since the original car was released it has undergone numerous, varied changes, both mechanical and cosmetic.

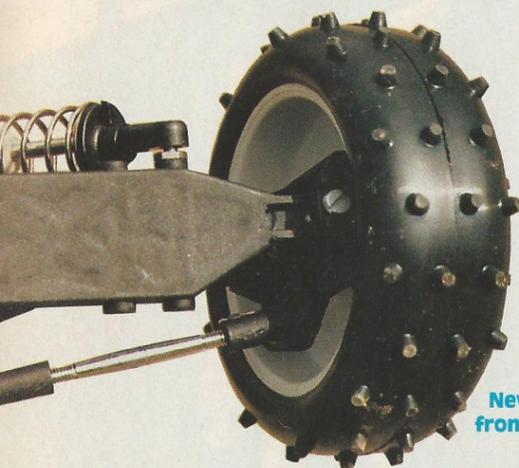
We have seen the CAT, CAT XL, CAT XLS, Pro Cat and recently the Pro Cat SE. To be fair the car has remained pretty much the same, but it has got progressively better as new bits and pieces were designed to improve the original

design. With Schumacher's new 4x4 off road racer, the Boss Cat, there is cause for some celebration, because it is almost an entirely new car...

Top Of The Tree

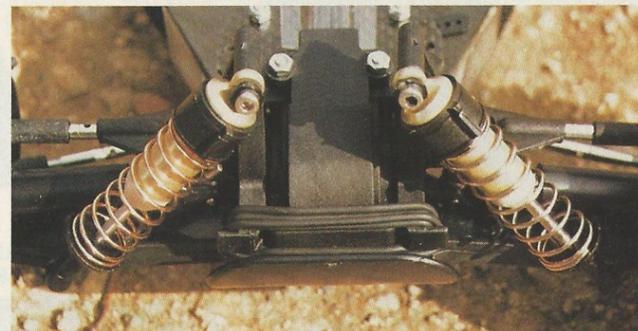
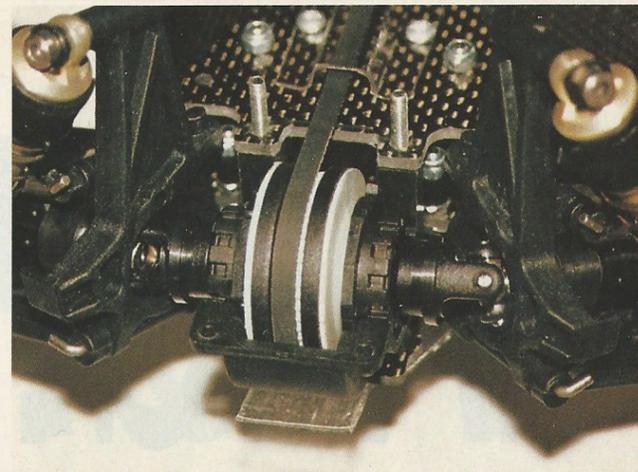
Looking at the specification of the Boss Cat, it is very obvious that it is aimed at the most committed 'racers', who take their sport seriously. Although the instructions are excellent, and the car could be built by an absolute beginner, it certainly isn't aimed at the lower end of the market.

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Upper front gearbox casing removed reveals the differential. Notice the 'cam locks' either side of the diff. These allow the belt tension to be altered, quickly and easily, in a matter of seconds.

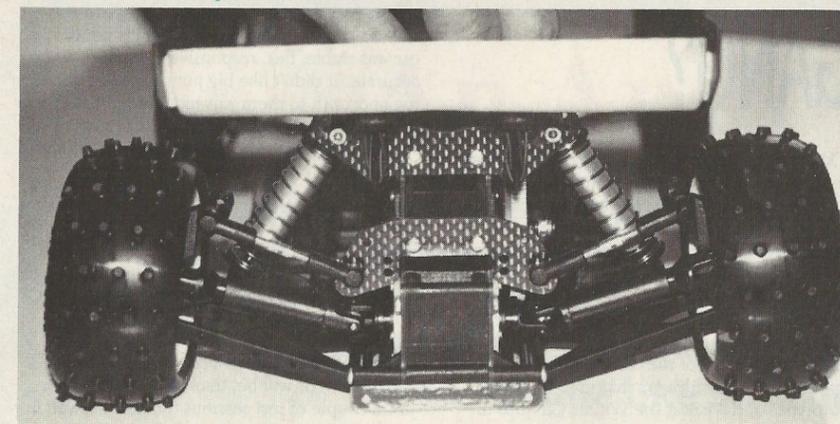
New lower front wishbones.



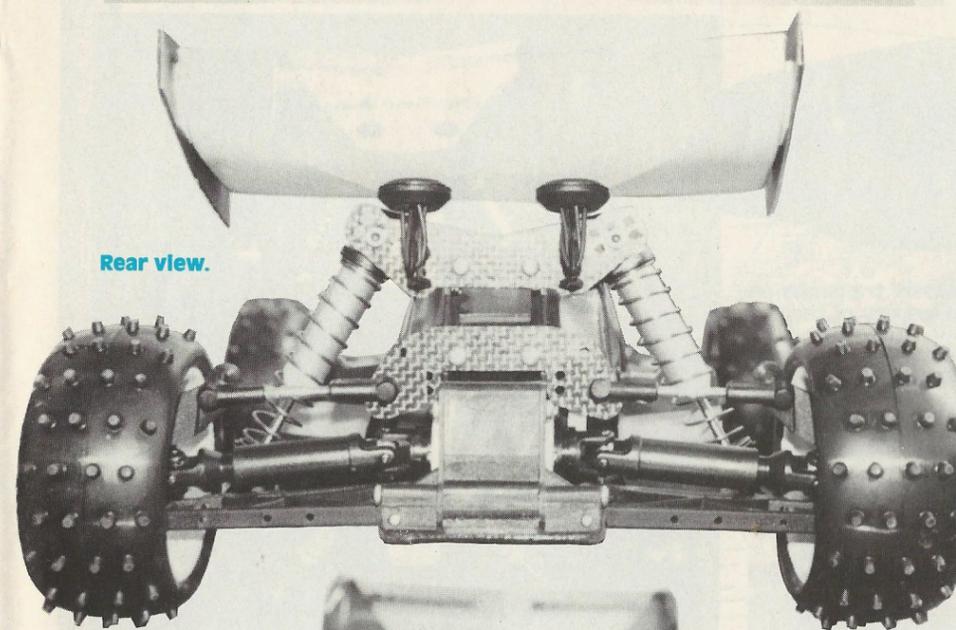
Front end on the Boss Cat utilises crashback suspension, adjustable caster and camber and intermediate length front shock absorbers.



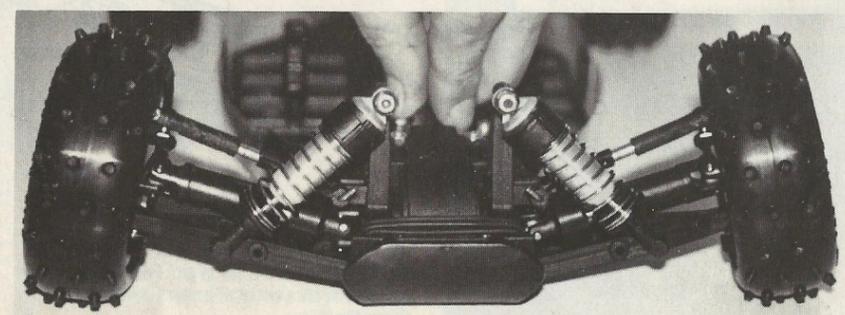
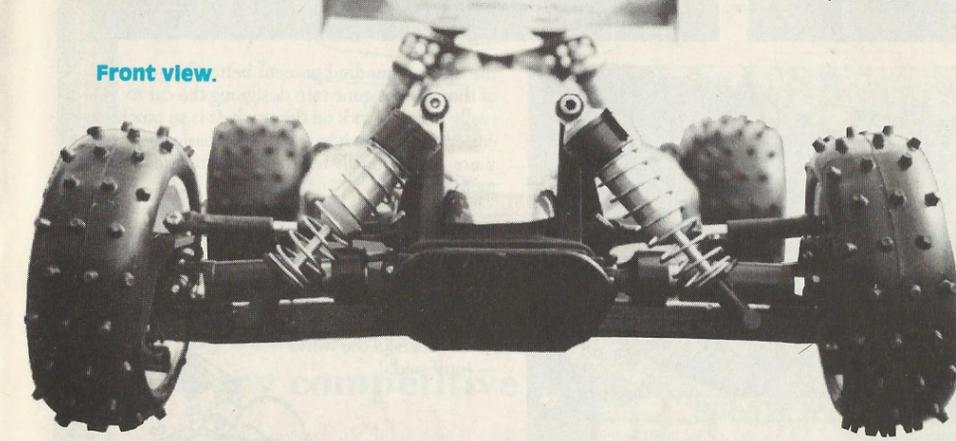
Front and rear suspension detail.



Rear view.



Front view.

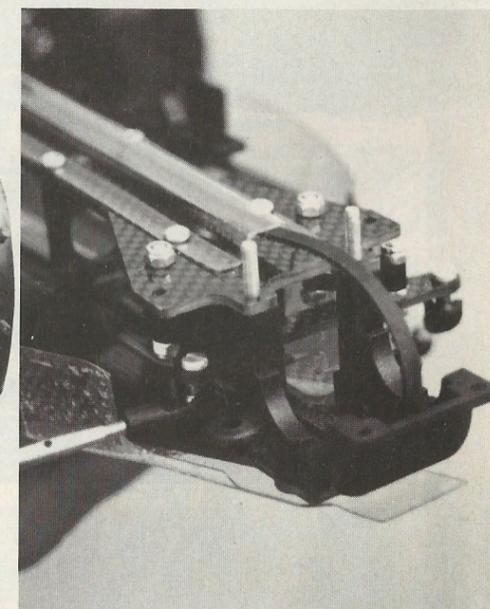


that quite a few of the items seen on the Boss Cat were introduced on their recently released 2WD buggy, the Cougar 2. Things like the adjustable, hard anodised shock absorbers, roller driveshafts, quick change slipper clutch with 'whisper gears', P.E.P. mouldings and 2.2" wheels and tyres, have been tried, tested and more than proven for competition use. So, the Boss Cat should be a winner straight from the box.

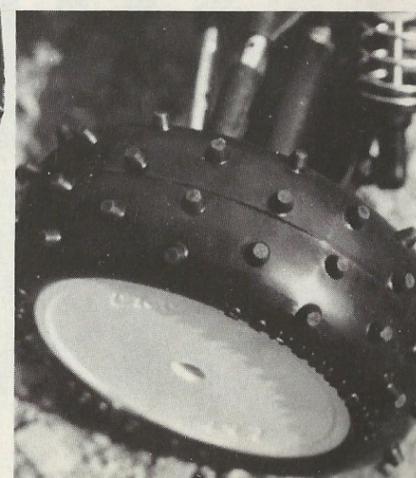
It goes without saying that the Boss Cat is fully ballraced for maximum efficiency, and overall the drivetrain is far superior to the Pro Cat — it is smoother, more accurate, and ultimately, easier to adjust and maintain. The new design body shell is a lower, sleeker looking beast than the Pro Cat version, and basically it is a lot more attractive!! The rear wing sits above the top point of the body and is supported on Cougar 2 style 'crashback' mounts.

First Impressions

Having built the car I was suitably impressed. It went together well, everything fitted accurately, and no problems were encountered. I like the look and feel of the Boss Cat, it seems right, I don't know why, it just does.



Front suspension assembly and diff. can be removed in less than three minutes.



2.2" wheels and tyres.

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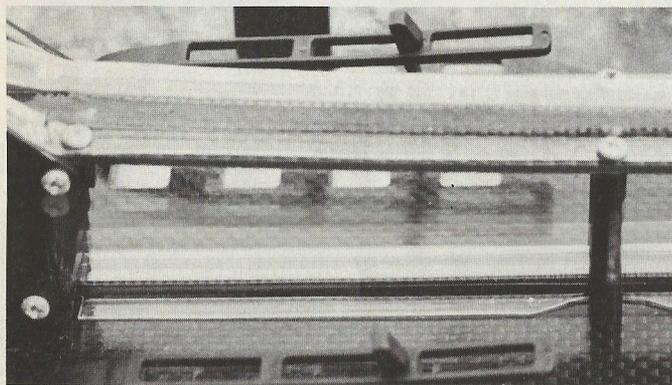
Latest Aerodynamic Body
Tough Moulded Wing & Mount
New Rear Adjustable Anti-Roll Bar.
Easy Assembly/Excellent Instructions
Latest 5 Point Pivot Suspension System.
Exclusive Red & Gold Anodized Alloy Parts.
Large Progressive Tapered Dampers and Springs

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New 'Cougar 2' style front differential.



'Belt over chassis' transmission design, lowers the centre of gravity of the car.



Contrary to the instructions, instead of filling the shock absorbers (with the adjustable pistons) with 20 wt oil, I opted for 10wt with two holes in each piston, front and rear. This felt like a good starting point, fine tuning it would come later at the track. My favourite radio gear was installed (Corally MMS II, Sanwa ERG-XS servo, Futaba micro 40mHz receiver, LRP Blue SE motor), it all went in quite easily and neatly.

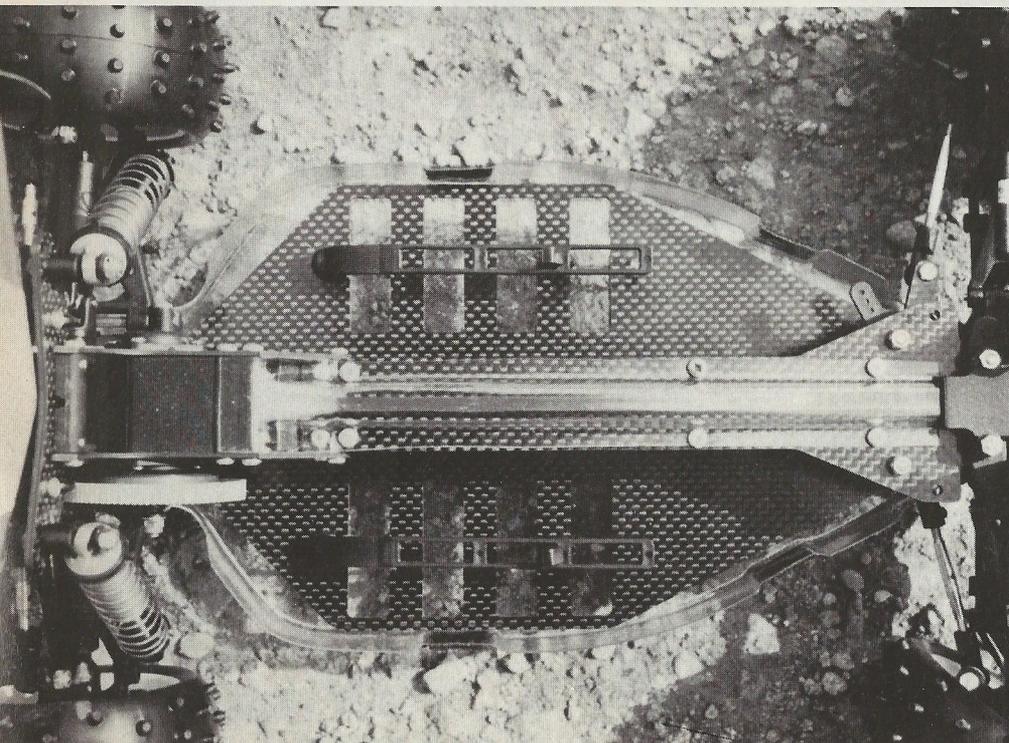
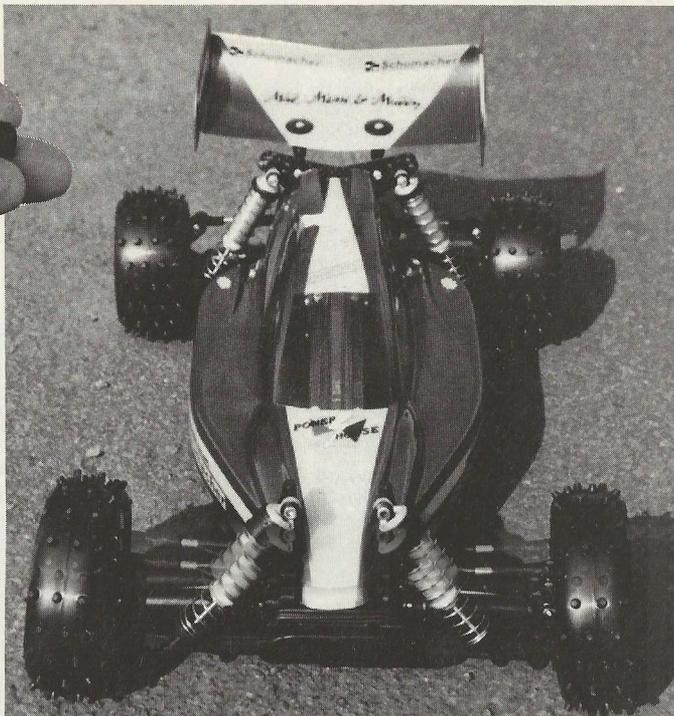
First impressions of the car are similar to those experienced by the drivers that used the first prototypes of the car at the Winter Champs in

Florida. The car handles a little bit like a Yokomo or Lazer, but with the turning ability of a Pro Cat. As you can imagine, it felt really good. The car was stable, fast, responsive, agile and accurate (it didn't like big jumps at first, but once the approach to them was modified, it took them in its stride). After just a couple of minutes I started to feel quite confident with the car, and began to really enjoy driving it.

Lasting Impressions

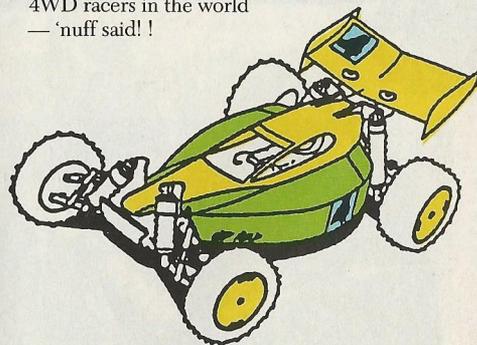
There is no doubt that Schumacher needed to come up with a replacement for the Pro Cat, it was an old design and I think the R/C model car buying public wanted a change. They have certainly got this with the Boss Cat.

It is difficult to say just how much better the Boss Cat is, or will be, than the Pro Cat; after just a couple of test sessions though it is well into



the 'several hundred percent better' league. A lot of thought has gone into designing the car to really make it work on the track. It is so much easier to work on it isn't true, it is basically a more professionally built and designed model racing car.

The Boss Cat won't be cheap, but progress hardly ever is. It is an out-and-out racing car — there are no arguments about that. If you enjoy racing model cars competitively, the Boss Cat has to be considered, there can be little doubt that it will be one of the most highly competitive 4WD racers in the world — 'nuff said! !



All new graphite chassis. Notice that the cells can be moved forwards and backwards for different weight distribution.