

Above all else Tamiya's latest 1/10th scale buggy is a welcome return to the part of the market they know best and are most renowned for. Tamiya's entry into the higher levels of the competition market was hardly successful. For the most part the 'Avante' was over-priced, over-weight and overlooked by most drivers in the UK bred on the race-winning potential of the Schumacher 'CAT' and the Kyosho 'Mid Optima' series.

However, when it comes to mass market, easy-to-build 4-wheel drive buggies, the Tamiya 'Boomerang' and others in the series sets a target that other manufacturers cannot even see, let alone aim at.

Despite the fact that a plastic 'Avante' is on the way the production of this competition 'Boomerang' will probably be just as important and maybe as competitive.

Since the 'Boomerang' was first introduced, racing technology has progressed apace. Bringing the original car up to scratch will no doubt be good news for anyone who has been trying to uprate their car in the workshop. Many imperfections of the old car have been ironed out to allow the 'Terra Scorcher' to provide the sort of performance most drivers expect of a competition car.

None of the changes, as far as I can make out, are cosmetic and all serve to make the car stronger in certain areas and hopefully quicker and more responsive.

Steering

On the old car the novel rack and pinion steering system always worked quite well but never as well as it could. Originally a plastic bar slid through a groove in the chassis from side to side to provide steering movement. The problem with this was that the bar flexed to much and the chassis groove usually got filled up with muck and rubbish off the track. Now, however, Tamiya have addressed the problem and come up with a simple and effective solution. Instead of a bar the 'Terra's' steering uses two pivot arms connected together to form the rack. The steering servo

connects with one side and movement is transmitted to the front wheels. The advantage of this 'set-up' is that the whole thing is much stronger than the old type as well as being much more positive.

This new system transmits the servo's commands much more precisely and quickly simply because there is no longer any slop or weakness. Another area of welcome change is the use of adjustable, heavy duty track rods in the steering and throughout the car. Although the ball-joints are not captive they are a really tight fit and will need a lot of force to get them off. Furthermore the threaded rod end is a good quality hardened steel to lessen the possibility of it bending.

Gearboxes

Amazingly these are of a different design. The differential units in the 'Boomerang' series have for the most part been quite reliable so the change in design is interesting. They may have decided to change it simply because the original mould tool wore out - who knows!

Anyway the star and bevel gears of the differential are now fully enclosed because the gears are being held far more tightly inside the differential case whereas before they were in danger of flopping about.

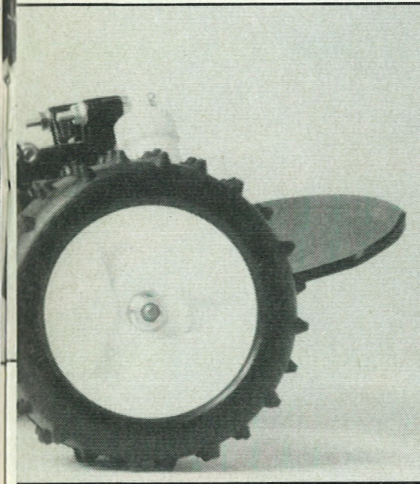
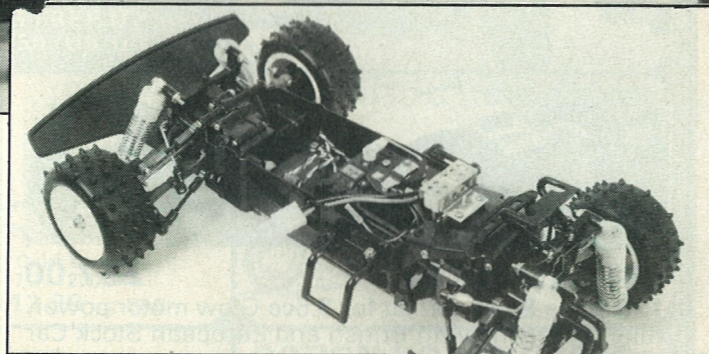
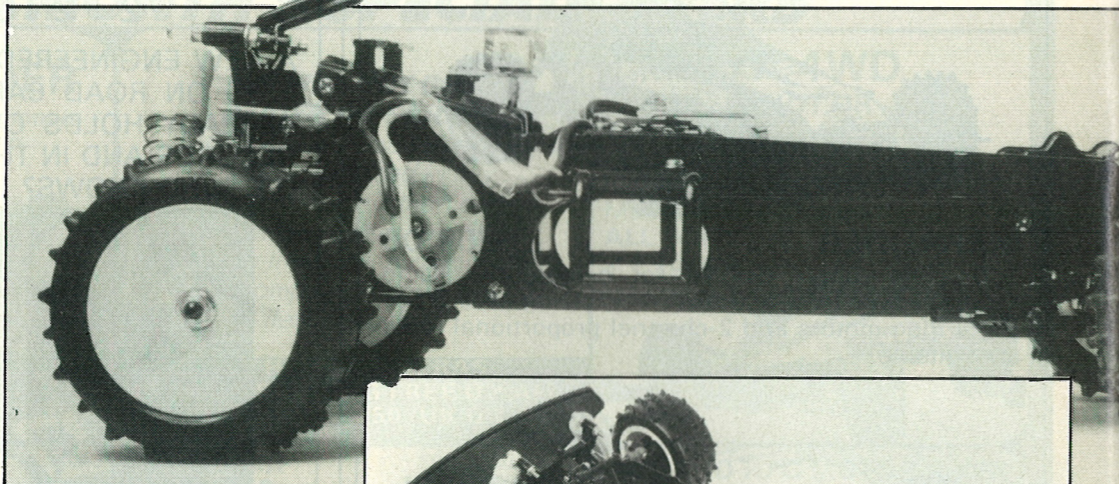
The rest of the gearbox is fairly straightforward except that the drive couplings between the front and rear

gearboxes can now be got at without dismantling the entire gearbox. By removing the moulded box on the side of the rear gearbox and a plate on the side at the front, the central driveshaft can be got at along with the thrust washers and bevel gears that connect into the main drive. Obviously this is much better for maintenance and

oiling of the moving parts.

Motor mount

On the original 'Boomerang' getting the motor bolted into the car was a pain let alone getting the gear



Above: The 'Terra' has good ground clearance and is reasonably long wheel based. Left: Independent suspension all round. Bottom: Reasonably smooth undercarriage and 540 Mabuchi motor.



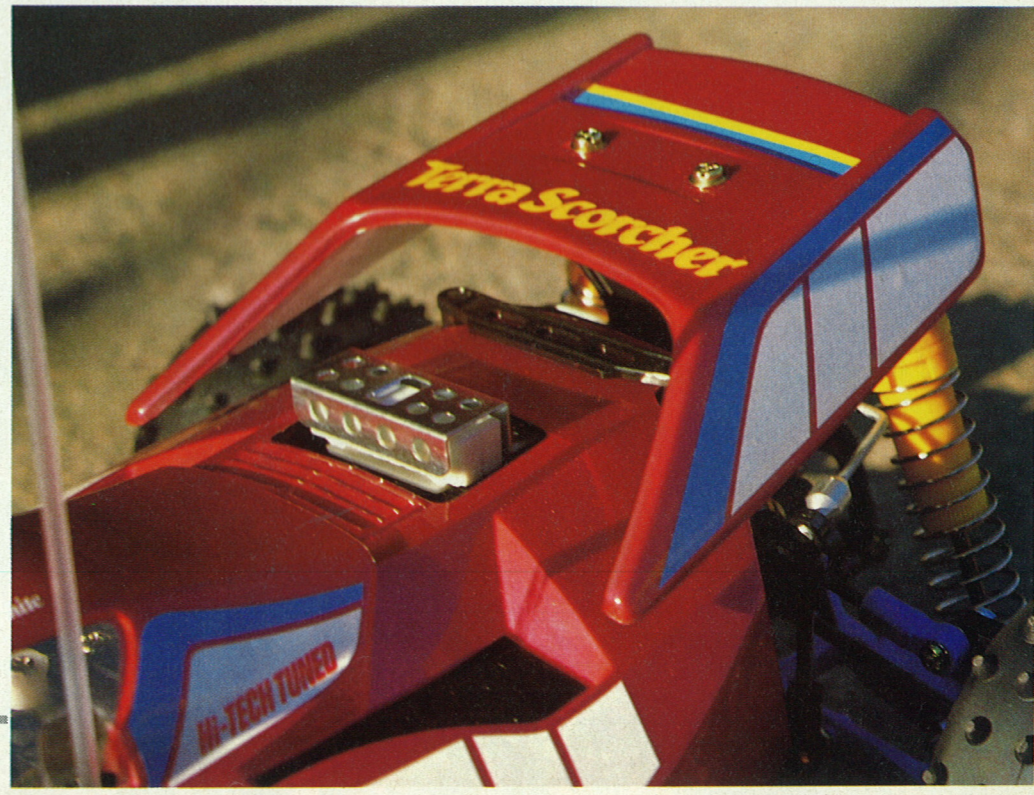
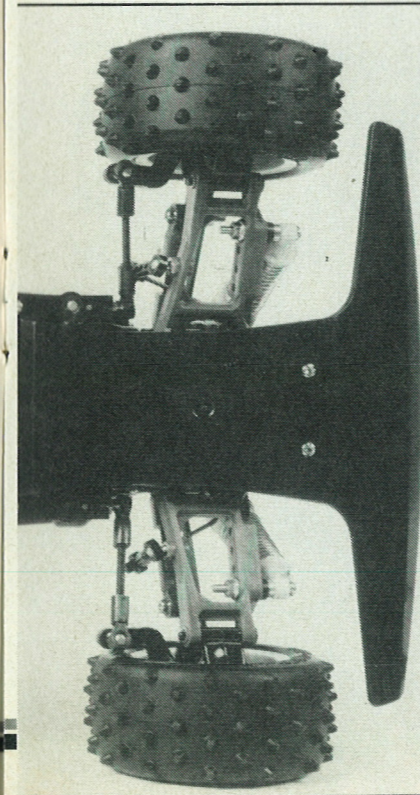
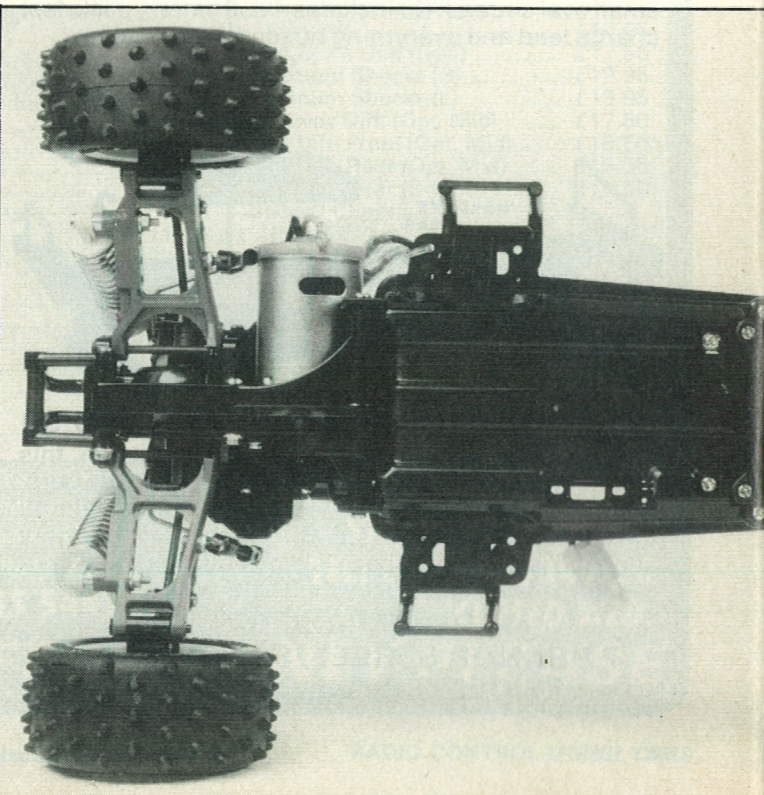
Tamiya have gone back to what they know best. The Terra is a 4WD full blown racer - only for the clubman.

mesh right. All I can remember is fiddling with these annoying strips of metal which spaced the mounting screws in their slots correctly to achieve perfect mesh. Unfortunately, it was a job just to line the screws up with the threads in the motor which meant quick changes were right out of the question.

Fortunately this is no

The 'Terra's' bodyshell is futuristic with an enormous rear wing & 'Ninja' style cab.

That enormous wing should keep the back on the ground - resistor sticks out of body for cooling. Note shell can be removed without removing wing.





Kerta Scorcher

Small Apprehensive

Hi-TECH TUNED

PRO-CUP RACING TEAM

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Riverside, Ca.



MODEL
CARS

longer a problem.

A new motor mounting plate has been produced which fits directly onto the face of the motor and features a range of screw holes. Depending on which size pinion gear is being used the plate is bolted to the motor using the holes with the corresponding number written next to it (i.e. 14 tooth pinion = hole 14). This gives perfect gear mesh every time.

Getting the motor fitted into the gearbox is now much simpler because the bolts now screw into the motor mount rather than the motor itself.

Suspension systems

This is virtually all brand new with different wishbones, adjustable upper arm links, anti-roll bars and at the front end, universal joint drive shafts.

The wishbones are moulded in blue plastic which by all accounts allows you to see any stress marks in the plastic before the situation becomes too bad and the wishbone breaks. The 'Terra's' wishbones are a totally different design to those on

the original 'Boomerang'. Despite being less chunky, they still look very strong.

The wishbones pivot on hardened steel screw pins which have a thread at only one end to retain them in the plastic mounts. The top links are like the steering track rods - fully adjustable and heavy duty. Adjustment of the links means that camber angles of the front and rear wheels can be altered to give different handling characteristics. Once again they are a difficult thing to get on and

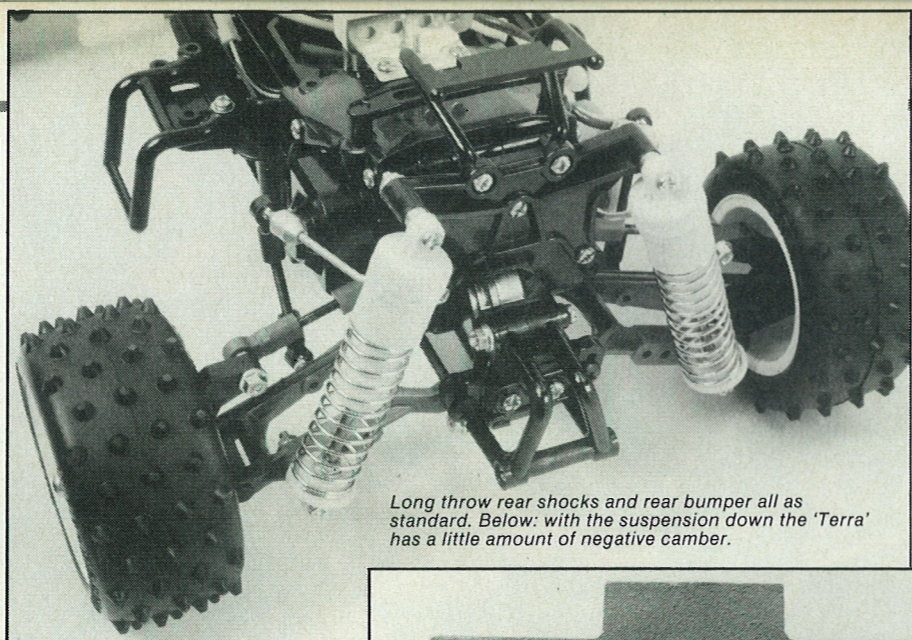
logic says they will be just as hard to get off. The inboard pivots for the upper arm links also use screw pins for quick removal when inspecting or changing the drive-shafts.

As mentioned above, the rear driveshafts are the solid steel type but the front feature universal joints to stop them flying out during hard cornering. The front UJs are of a fairly standard design used by most other manufacturers.

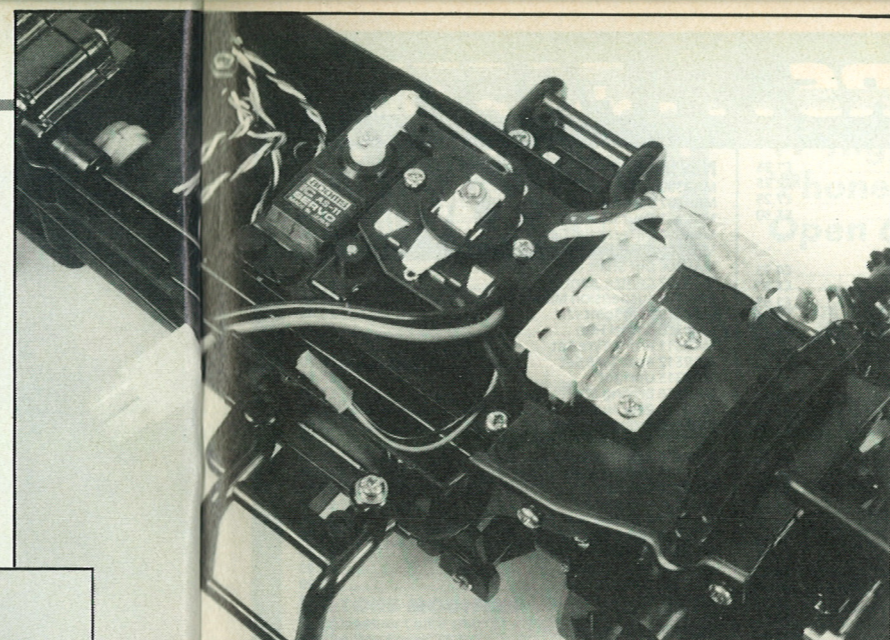
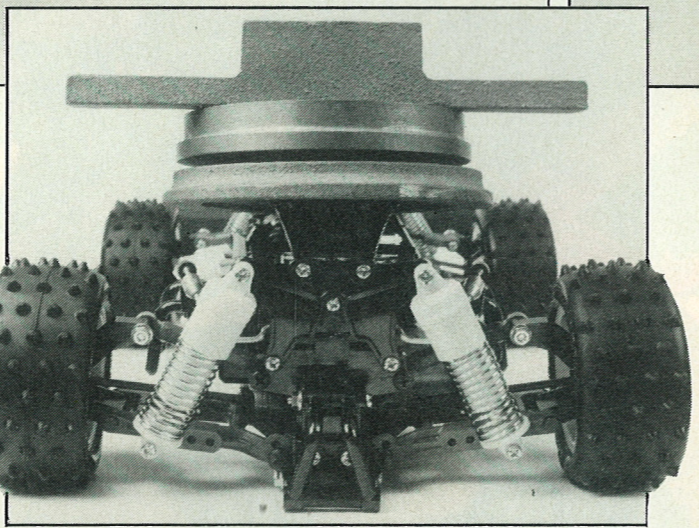
The anti-roll bars are, thankfully, (though not surprisingly) pre-formed because the shapes are quite complex. By most standards these ARB's are pretty good and do have some effect. Once again they are adjustable and 'Terra' drivers will have the choice between hard and soft settings.

Dampers

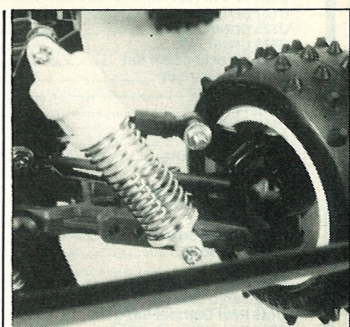
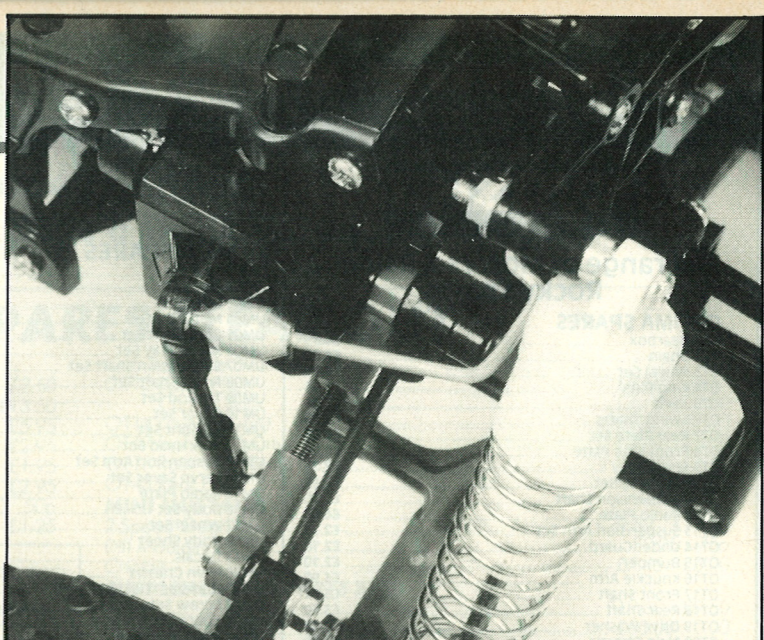
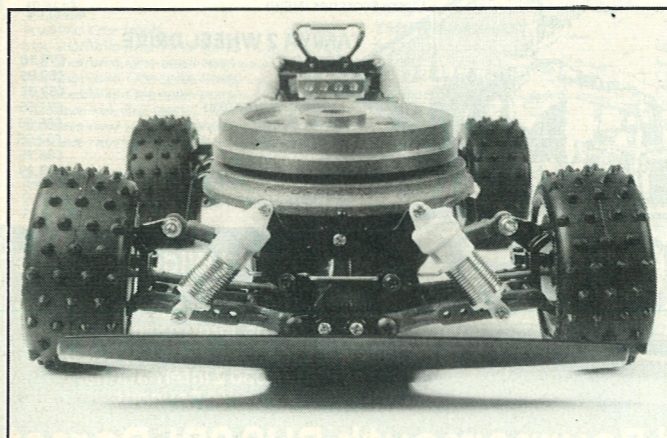
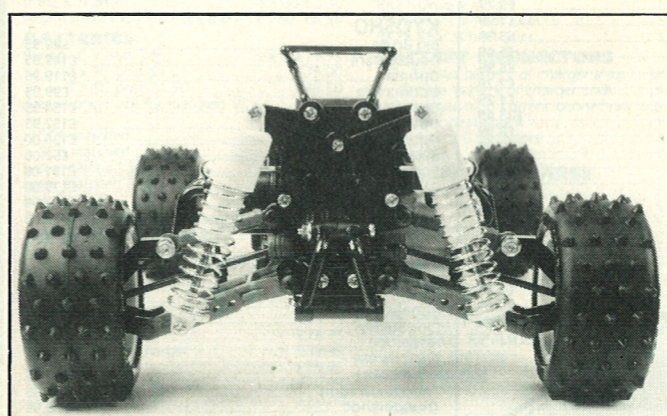
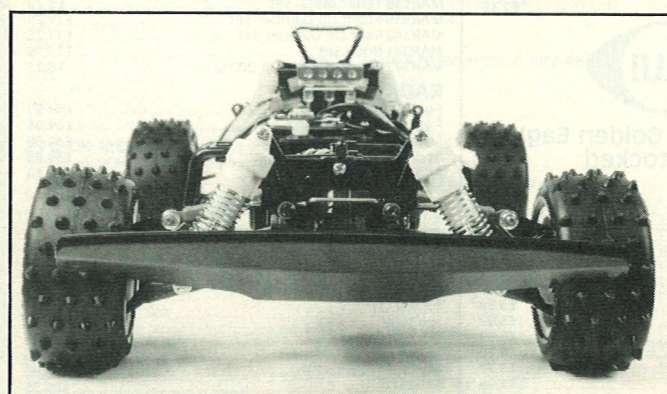
These are pretty much the standard Tamiya plastic CVA shocks which have been around for some time. In practice they have proven to work extremely



Long throw rear shocks and rear bumper all as standard. Below: with the suspension down the 'Terra' has a little amount of negative camber.



Resistor 3 speed controller and cooling block. Below: Various views of the suspension showing camber changes and movement.



well, do not leak and are easy to set up.

The wishbones feature a range of mounting holes for the shocks to give a variety of ride height settings - again a change from previous models. The last major difference between this car and the one it was bred from is the inclusion of a full complement of ball races to really let the wheels spin.

The rest of the car is pretty much pure 'Boomerang', particularly the chassis which is the same basic plastic bathtub type. This gives plenty of room for the radio gear and makes it easy to work on any part of the system. One word of caution: Before you fit the rear gearbox to the chassis, make sure the centre drive shaft is in place - it will go a lot better with it in place. In an attempt to keep mud and rubbish out of the chassis tub, a top cover doubling as a driver mount encloses the chassis fairly well.

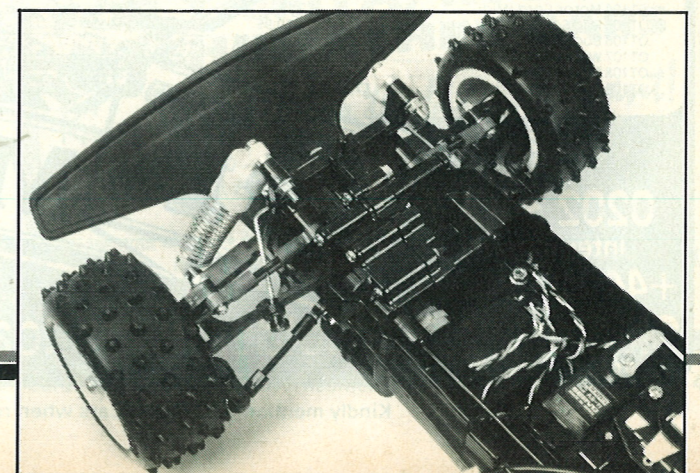
The one-piece plastic wheels are of a slightly different design but are exactly the same size and fitting of Tamiya's other styles of wheel. Needless to say wheels and tyres can be switched between the different cars.

The bodyshell is one of

the most striking things about the 'Terra'. In many ways it reminds me of the Marui 'Ninja' body in style and shape. At the back, however, there is no comparison because a huge wing sits across the rear damper posts. I wonder if the Tamiya designers actually carried out any wind tunnel tests to see what the effects of the wing to the handling of the car. A wing of that size should have some effect.

How the 'Terra' matches up to the likes of the 'CAT' and 'Optima' or the new version of the 'Avante' remains to be seen but certainly in its class this car, on specification alone, has the beating of all the others.

Tough ball joints steer the 'Terra' and from our experience won't come off.



The Terra is fitted with the same wheels and tyres all round. Also the front has long throw CVA shocks.

SHEER TERRA