

TRACK TEST



SUPER SHOT

Adding a touch of dash and sparkle to last year's 'Hotshot,' Tamiya have produced the mandatory updated version for 1986. Lewis Eckett looks beyond the packaging for the performance differences and finds out if Tamiya's four-wheel drive Off-Road car is back on target

So here it is. A year after the introduction of *Tamiya's* original four-wheel drive competition car we have the re-named, re-styled update: the 'Supershot.'

Hotshot/Supershot, sounds familiar? It should do for just as full size car manufacturers can play the marketing game (Astra/Belmont — Escort/Orion), model producers can follow suit (Progress/Gallop — Hunter/Galaxy — Grasshopper/Hornet and so on/and so on).

Often the changes are simply cosmetic, roll cages instead of bodysells, different wheels and tyres and new trim.

Constructional changes are usually the result of modifications made by individual users. So it is with the 'Supershot' albeit a year on from the first appearance of the 'Hotshot.'

The changes

The most obvious of these is

to the suspension. The 'Hotshot' arrived with mono-shocks fitted front and rear which worked well on average but allowed little scope for fine adjustment.

The obvious answer was to fit independent shocks all round. Instant adaptability to any racing surface with the added benefit of actual damping instead of springing to absorb the bumps. British racers used a variety of products to attain the desired effect. Dampers from *Associated*, *Parma* and *Kyosho* were pressed into service until the arrival of the *Tamiya* 'Fox.' The plastic units in that kit proved to be ideal married to home made GRP mounting plates to give longer and more linear shock movement.

Back to the 'Supershot' and here it is apparent that *Tamiya* have followed these modifications and incorporated their own design changes using similar plastic dampers to the 'Fox.'

The difference between the

two types of damper are subtle. The 'Supershot' versions have a rubber oil seal inside the barrel and have a longer stroke at the rear compared with those of the 'Fox.' The spring rates are different as are the lower mounting points.

The only drawback to having independent shocks is of course weight. Four dampers plus mounts are clearly heavier than two. The benefits in improved damping should negate the weight increase.

Another obvious performance benefit is the replacement of all plastic bearings with proper ball races. The 'Supershot' kit includes these: all 24 of them to free off the transmission system as much as possible. Various companies and model shops offer ball races at low prices but invariably the shielded type supplied by *Tamiya* have the higher/longer performance ratio of all.

The third major addition is a full length chassis underguard

or skid plate. This smooth plastic surface not only protects the bottom of the car but also stops the car from snagging on any obstructions. Again a few more grammes on the scales but worth it for the protection.

Finally, as befitting their top of the range car, *Tamiya* have replaced the venerable *Mabuchi* 540 motor with their own version, the RX-540SD Technipower. Although this motor uses the same phosphor bronze bearings as the standard 540 this motor can be opened to allow maintenance on the armature and brushgear. This facility also allows adjustment of the motor's timing.

There are other minor changes cosmetic and constructional. The 'Supershot' tyres have a spiked tread pattern all over whilst the hubs are anodised gold. The bodysell is slightly different of course.

Constructionally speaking there are improvements rather

than changes.

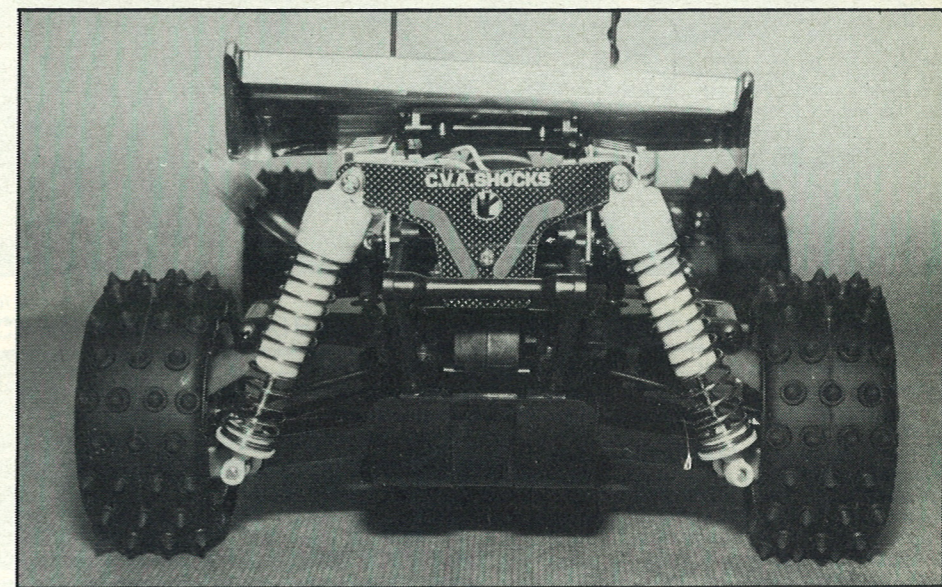
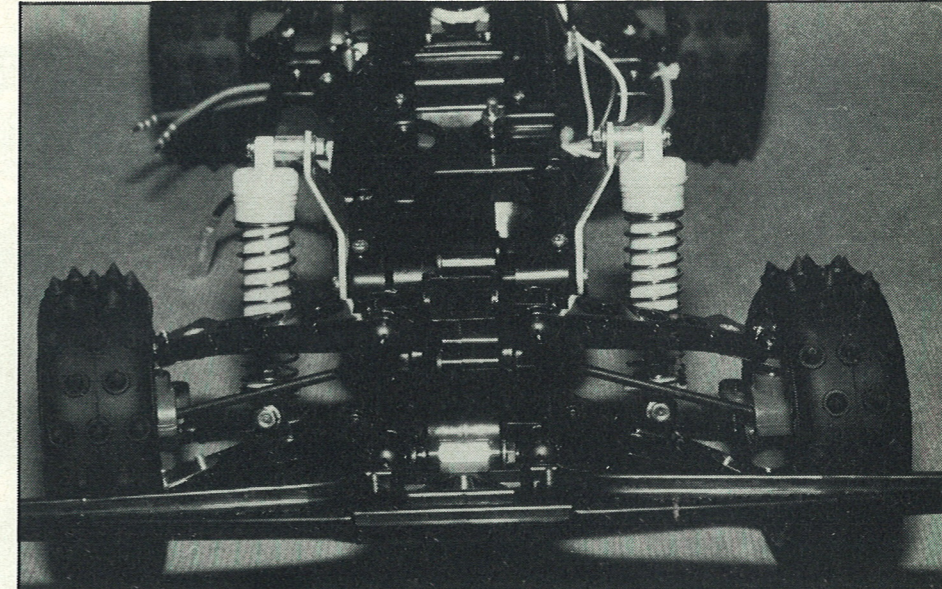
The three-piece 'Hotshot' drive shafts are replaced with slimmer, one-piece steel types.

Front and rear pairs are still different in length and are now colour coded (brown and black) to get the right pair in the right end.

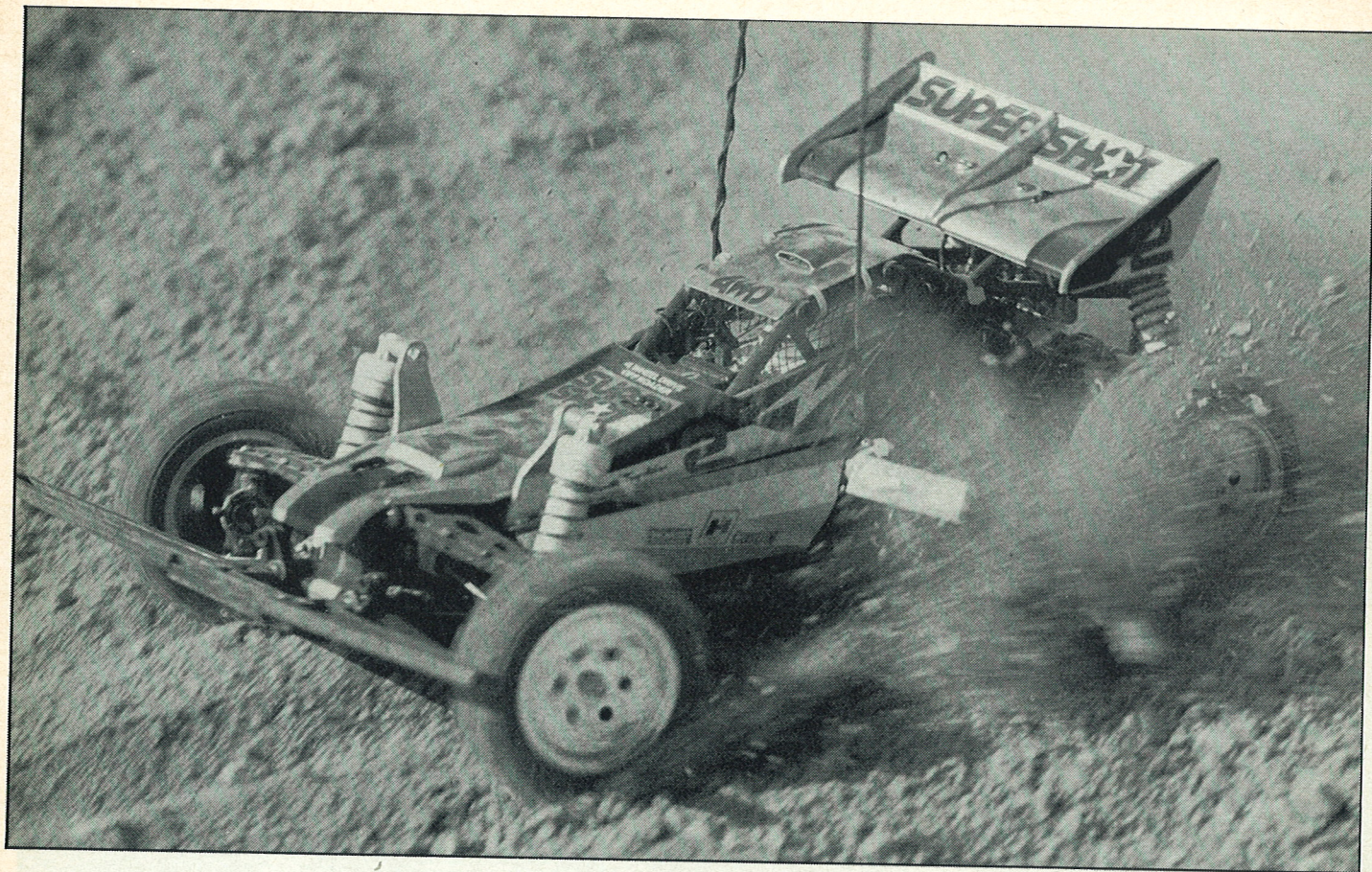
The bottom wishbones have been re-moulded mainly to accommodate the lower damper mounts but also to cure a niggling problem on the original car. During full bottom travel of the 'Hotshot' wishbones the lower arms had a tendency to rub on the inside of the wheel hub. This is no longer the case with 'Supershot.'

Glass filled nylon differential gears replace the ordinary moulded nylon types.

The top chassis deck has also been changed slightly to allow the full range of battery eliminators to be used. In accordance the speed controller now has a radio connector fitted to plug straight



Top: new front suspension layout using pre-formed aluminium struts to provide the top damper mounts. Above: rear suspension featuring long stroke plastic dampers and different rate springs to those used on the 'Fox.'



Above: 'Supershot' bursts forth with all four wheels digging deep for the grip. Below: without the bodysheet.

into the battery eliminator switch harness.

Finally, no front anti-roll bar is fitted.

The upshot (sorry) of all this is an improvement in specification at the expense of a few extra ounces and of course pound notes. If you already own a 'Hotshot' it's entirely possible to re-create the new specification by going through the spares catalogue.

Building

There is not a lot to say here that the instructions do not cover in detail.

However, when assembling the gearboxes and differentials make sure they are well lubricated with the grease supplied. The reason for this is that at first the differentials will be knotchy in operation and require a few runs for them to 'bed-in.' The grease helps the process along.

When fitting the pinion gear to the motor use the plastic spacer provided. I didn't and spent half an hour trying to find out why I couldn't get the motor to mesh with the differential gear.

Use thread lock everywhere. There is none supplied in the kit so buy some, it stops nuts and bolts vibrating loose and ultimately stops your car from falling apart.

The dampers can be adjusted by using any one of the three

pistons supplied. The spring rates can be stiffened or softened using the clip-on spacers provided. As a general rule of thumb drop the car (fitted with Ni-Cad pack) from a foot off the ground. If it bounces soften the settings. Any fine tuning is up to you when you get to the track.

On the track

The 'Supershot's' first racing venture was at the opening of the new Peterborough track. The car was completed only hours before the meeting and placed on the line for the first heat, having never turned a wheel in anger and in totally standard trim.

To my delight the car not only lasted five minutes but did so in fine style. At first I thought it seemed slow but after overshooting the corner at the end of the straight a few times I realised the speed was deceptive.

Cornering was a new experience. Instead of backing off the throttle as is usual with a two-wheel drive car the power could be held on for much longer lifting off at the apex for an instant and re-applied to 'squirt' the car out of the corner.

At the end of the day I must confess to being pleasantly surprised at the 'Supershot's' performance literally straight out of the box.

