Tomcat

The big cat influence continues with a belt drive, 2WD 1/10th scale electric Off-Roader from Hirobo. Geoff Driver gets on the trail of the 'Tomcat'

TRACK TEST

The 'Tomcat' is the *Hirobo* company's first venture into two-wheel drive Off-Roaders. The other vehicles in the range being the 'Rock'in City' and its derivatives and more recently the 'Zerda'. Most modellers in this country probably know that *Hirobo* originally made their name in the field of helicopters, less well known is that the company also produce a range of 1/12th cars but to the best of my knowledge these have never made it to these shores in any quantity. Probably the European 1/12th boom was over before *Hirobo* entered the market.

As with the latest 'Zerda's' to come from the factory the 'Tomcat' is ready assembled, which makes it a particularly easy car to take straight from the box and put on the track. The method of construction, namely self-tapping screws, nuts and bolts is quite conventional. As such it is a little difficult to see why the car comes ready assembled, although I have heard stories of people experiencing difficulties assembling the 'Zerda'. It may be that *Hirobo*, in an attempt to cut down on items returned due to damage during construction decided that it was better to spend more on assembling the car in the factory than let the purchaser make the mistakes building it himself. From a reviewers point of view this makes the job more involved as the car must be dismantled to find out how it goes together.

The basic specification of the car is belt drive from the motor to a countershaft which in turn drives a secondary belt to the rear differential. This is a conventional gear type unit (non-adjustable) as fitted to the 'Zerda', which connects through ball and pin drive-shafts to the rear hubs.

The independant rear suspension is of a wishbone design, the upper arm being a single adjustable rod. Springing at the rear is by coil over shocks with the dampers finished in gold.

The rear hub carries the wheel on a single large ball race, the wheel is driven by the serrated spacer which tightens onto the tapered drive-shaft as the hub nut is tightened.

The rear belt is of the square cut teeth type usually described as a light timing belt, and although tension is not adjustable, up to now their has been no trace of cog jumping although I suspect that the belt will need to be inspected regularly for wear.

At the other end of the car the front suspension is also independent, but the two coil-over shocks are mounted across the frame. This is a neat arrangement, the only drawback is that the adjustment of one of the damper springs is a little difficult as it is housed inside the monocoque chassis. I think a few deft strokes with a modelling knife will cure accessibility problems. Front suspension is once again wishbone type with an adjustable single upper arm that allows easy changes of camber angle. The front stub axles carry the wheels on twin ball-bearings. A real problem here is that the stub axles have a tendency to pull out of the moulding. Looking at the component parts, the front plastic swivel hub appears to be moulded around the steel stub axle, and the location is just not adequate. I hope that this problem can be cured, at the moment superglue is the only option I can find.

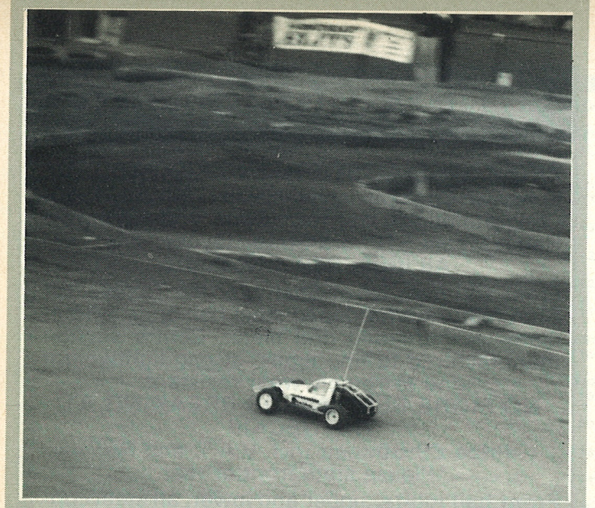
The whole chassis is an injection moulded box in two parts onto which all the suspension and other parts are bolted. The wide box holds radio, servo and the batteries fit in a cut-out section at the back end of the chassis. On top of the chassis is the wiper board speed controller which switches the resistors fitted on the rear suspension mounting bracket. The mounting bracket also acts as a heat-sink for the resistors.

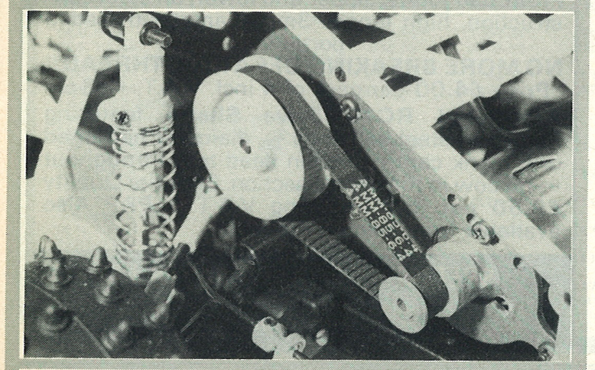
The tyres supplied with the car are ribbed front and spike rear. Both front and rear wheels are five-spoke design, but of course completely different in width. The wheels will take the usual *Tamiya* range of tyres.

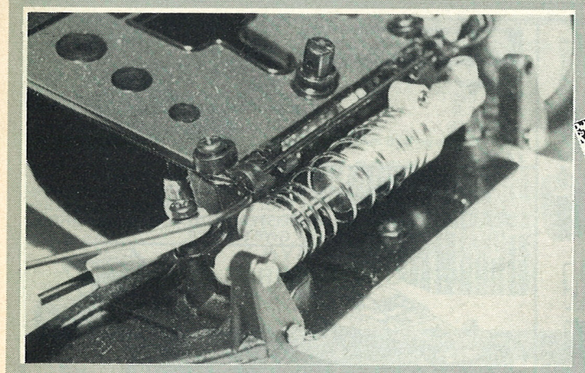
The body is quite small and really acts as a cosmetic cover for the top of the chassis box. The top of the car is equipped with a bright yellow roll over cage which will more than adequately protect all of the important bits beneath.

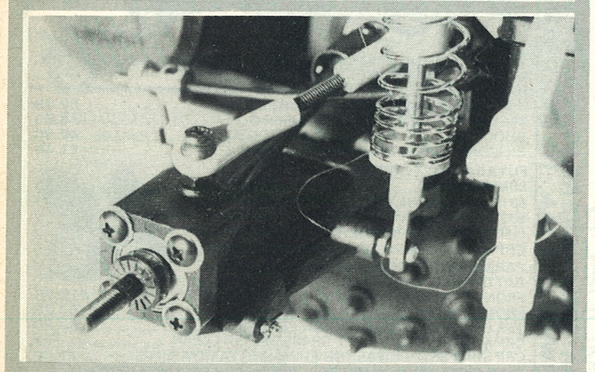
Handling of this car with its standard 540 motor is best described as predictable it having no outstandingly nasty habits. With the standard motor it was not staggeringly fast, but with one of the usual range of go faster motors on offer the car gives a very good account of itself,. The fact that it comes ready ball-raced, including the gearbox is no small advantage as far as performance and reliability is concerned. The fact that *Hirobo* have chosen to use two ball-races in the front hub instead of the single ball-race as is fitted to the 'Zerda' will only improve the reliability of this car. As might be imagined with the belt transmission the car is quite quiet. The suspension appears to soak up the bumps well, the only minor point on the suspension is that the oil supplied in the dampers seemed a little on the thick side.

All in all a nice car, well equipped with good docile handling. I would describe it as an excellent club racer and once the front stub axle problem has been cured it should be very reliable indeed. ▷

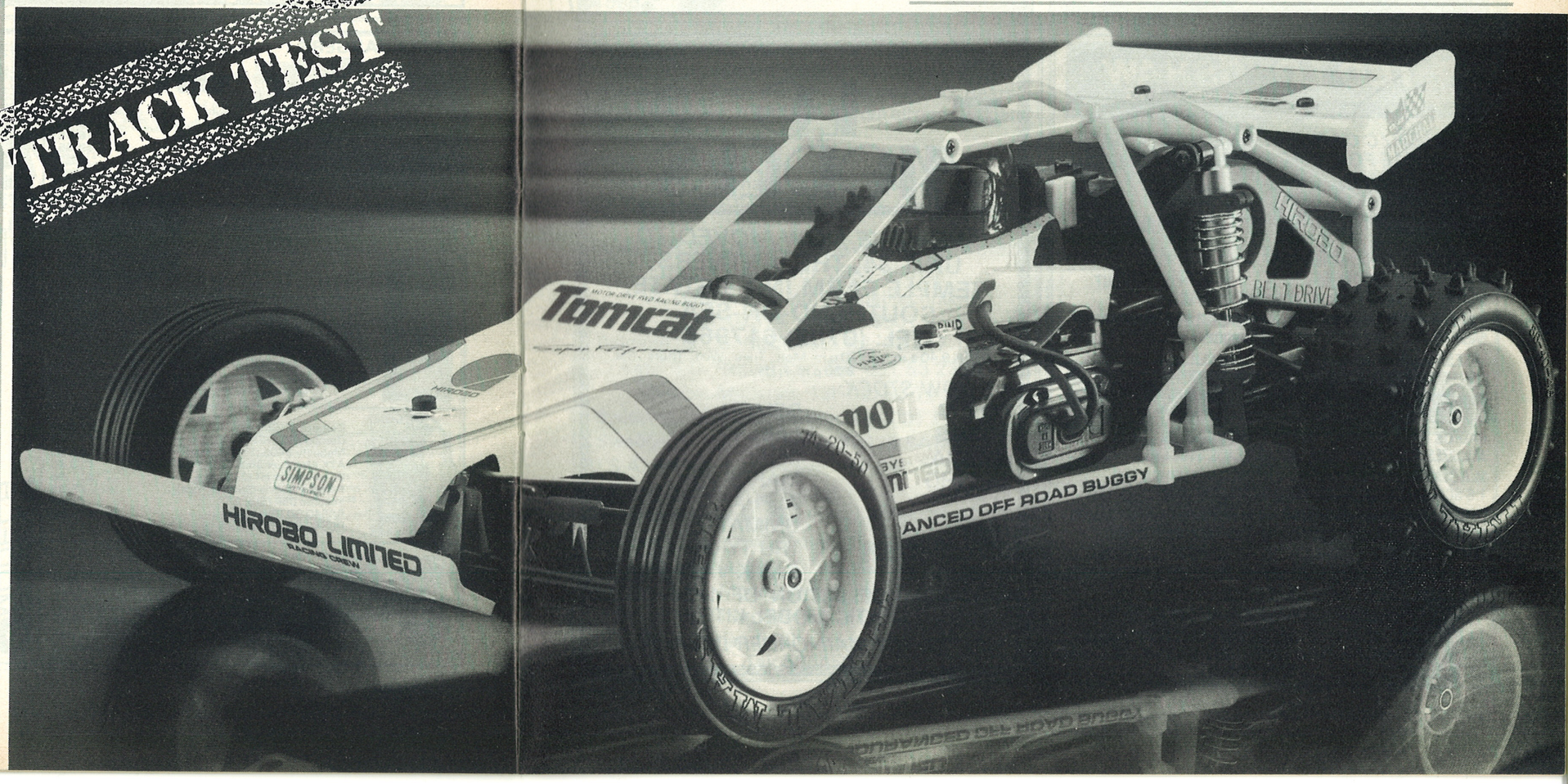


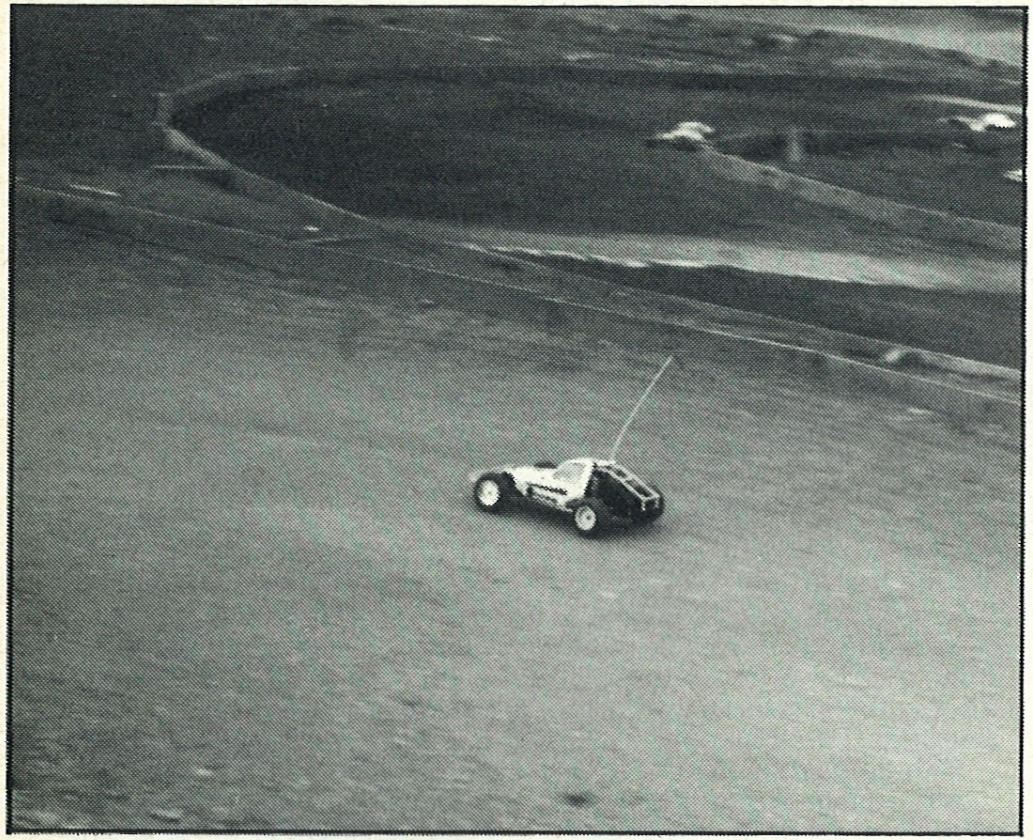


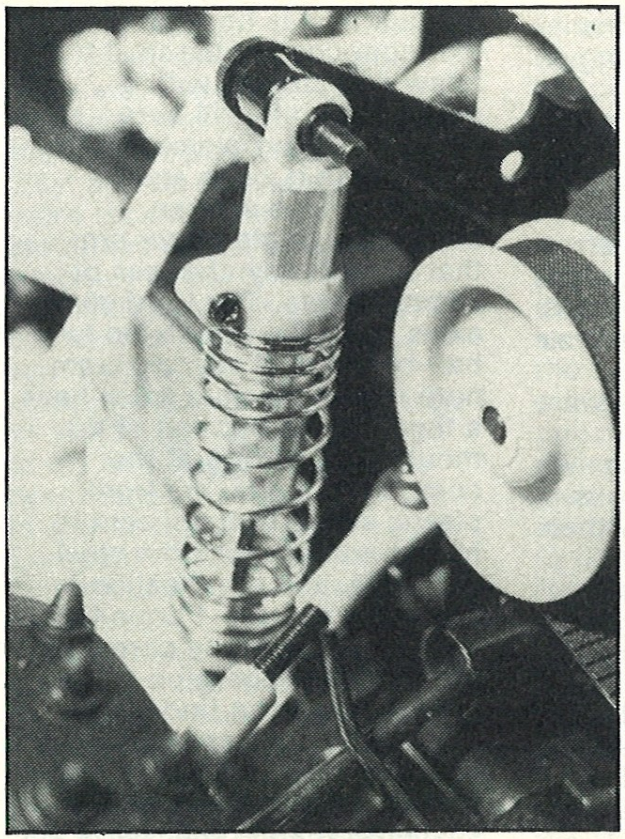




From the top: the 'Tomcat' at speed around Geoff Driver's home track. Close-up of rear drive belt and pulleys. One of the front dampers mounted across the chassis (other is mounted inside the chassis). Rear suspension and drive details.







Far left: more 'Tomcat' racing action. Left: rear damper mounting showing details of the damper barrel collet which adjusts spring tension. Below left: front stub axle blocks proved to be less than securely mounted. Below: rear anti-roll bar mounting point.