



# DAVE PEARSON looks at Tamiya's new 4WD 1/10 racer the Thundershot

one of the leading lights in 1/10 racing has always been Tamiya, Tamiya were there at the start building strong, reliable cars. As the 1/10 market exploded beyond the passing phase stage into the solid market of today, certain manufacturers have come and gone, seeded by a consumer evolutionary process where only the best survive, Tamiya gladly have more than proved their worth, not only surviving, but growing into one of the world's leaders in 1/10 car production.

It is against this background that we must then ask "Why have Tamiya not produced an all conquering 1/10 racing car for at least two seasons?" That statement was probably tantamount to heresy in some quarters, however results will bear it out. Mark

## Radio Race Car, March 1988

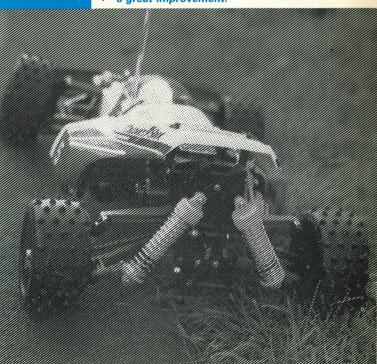
Chaplin has, last season at least, shown that a Tamiya car can deliver the goods against any opposition. During the 1987 Radio Race Car series his Bigwig was untouchable, as anyone who was unfortunate to come up against Mark and his car soon found out! Maybe the question should have been "Why don't more top drivers use Tamiya cars?" This again is difficult to answer, a suggestion and only a suggestion may be that Tamiya's racing image may not be quite right, after all what driver would be seen without his CAT last season, or his Mid Optima this? There is a lot of, dare we say it, pose-ability in owning the latest ½0 fashion car.

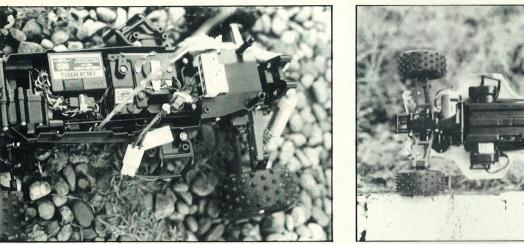
Having said that, how many times have you seen a driver with the latest 1/10 four wheel drive fashion accessory making a complete fool of himself because he doesn't understand how to make it go, stop, move left, right or in a straight line properly, run out of fingers yet? Maybe what we're trying to say is this, in the hands of a driver who understands his car, that car always goes quicker, if the car in question is a strong, fast, reliable car in the first place, then you probably have a winning combination on your hands.

# New Bits

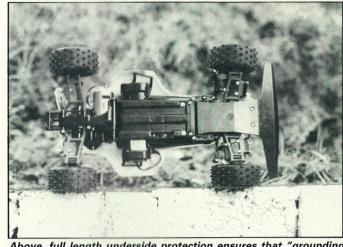
The Tamiya Thundershot is in most respects a new car, although it is based around Tamiya's tried and tested principles. The Thundershot is a shaft driven 4WD ½0 racer that is built around a bathtub or monocoque chassis, this then is the tried and tested part, a formulae that from experience we all know works. New steering linkages are added, gone is the ball and socket link and surprisingly enough the rack and pinion system a la Bigwig, in its place a parallel motion tie rod arrangement is used, this is both friction free, quick and very strong in use.

Rear suspension gives ample travel and is four-way adjustable to suit different track conditions. It appears that the Tamiya supplied damper oil is now much thinner, a great improvement.



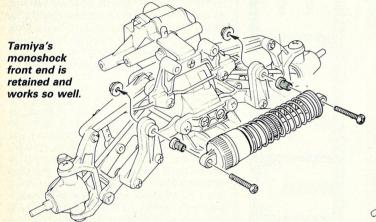


Above, all radio gear fits snugly and safely into the monocoque chassis.



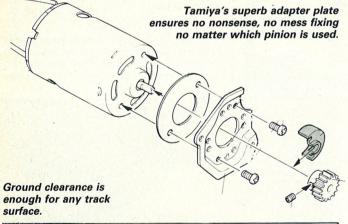
Radio Race Car, March 1988

Above, full length underside protection ensures that "grounding out" does no damage to anything vital.



A very dialable rear end, this exploded drawing shows off the single link upper wishbone. Power take offs are by means of bevel gears and are one area not to forget

if you intend to ballrace the car.

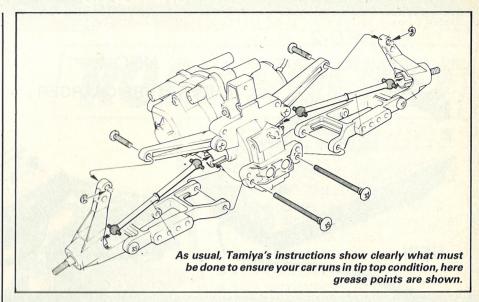






New Bits II The second major item of interest are the new differentials fitted to the Thundershot. Front and rear differentials are now totally enclosed using a star shaft, three small bevel gears and two large bevel gears. This arrangement does give a much smoother differential effect at both ends of the car, the Thundershot instructions show liberal amounts of grease used here, experience and evesdropping over the years however, proves that literally packing high speed grease into the differential works best and provides a small amount of limited slip effect. Gearbox construction is straighforward from here on in, nylon on bronze bearings are used throughout the Thundershot, if you seriously intend to race the car then these should be replaced with bal-lraces now, it's easier than building, stripping and then rebuilding the car. 4WD is provided by a prop shaft linking front and rear boxes. Finally a rather clever and easy to use adapter plate for use with 13, 14, 15, 16 or 17 tooth pinion gears is employed, this makes life easy when fixing motor to gearbox.

Thundershot also shows some new design thinking in the suspension department.
Single top and double bottom wishbones are employed at all four corners, no adjustment is provided on the front other than that of adjuster collars on the single monoshock. The rear of the car is another story as both rear shocks are four way adjustable. An anti-roll bar is also fitted to the front of the car and does go some way towards keeping the inside wheel on the floor during tight corners.



#### Construction

Construction throughout was straightforward as long as all instructions were followed, unusually for Tamiya one point of confusion may occur if the instructions are followed to the letter. The case in point is the fitting of the anti-roll bar, this appears to pass straight through the mounting bracket for the monoshock, for the first time builders among us this is not the case, the roll bar actually passes behind these. Take note!

### Exciting bit

The Thundershot is a real Tamiya racing

car and if someone such as Mr Chaplin gets his hands on it then a few people are in for more surprises again this year. Straight from the box using its monoshock system the Thundershot handles superbly well, showing signs of just a little oversteer, overall the car is stable and very predictable and does nothing to surprise the driver over the roughest ground. With the standard 540 fitted and using the 17 tooth pinion the Thundershot does make a superb introduction to serious competition work. For the more experienced driver? well take a leaf out of Mark Chaplin's book, try it you'll like it!

Tamiya Thundershot available from your nearest Tamiya dealer.

