

Tomy isn't a name one readily associates with R/C model cars. In fact Tomy isn't a name one associates with anything except children's toys. So what is Radio Race Car, the best R/C car magazine in the world, doing reviewing a Tomy Product? Well, it seems that Tomy have decided to 'expand' their line of products and move into the world of competitive R/C racing cars, really!

Their first attempt is a 4WD electric powered off road buggy named the 'Intruder', and rather surprisingly it looks quite good. This could be attributed to the fact that it looks almost identical to the Yokomo Super Dogfighter!

First Impressions

Like I said, it looks almost the same as the Yokomo Dogfighter, with the body on and off. The shock absorbers are in very similar positions, the shock towers look similar, the motor is mounted in almost exactly the same place, a magnesium motor mount is used, the drive system via two belts is almost identical and the chassis is a saddle pack type with an upper brace, à la Dogfighter.

Seven out of ten.

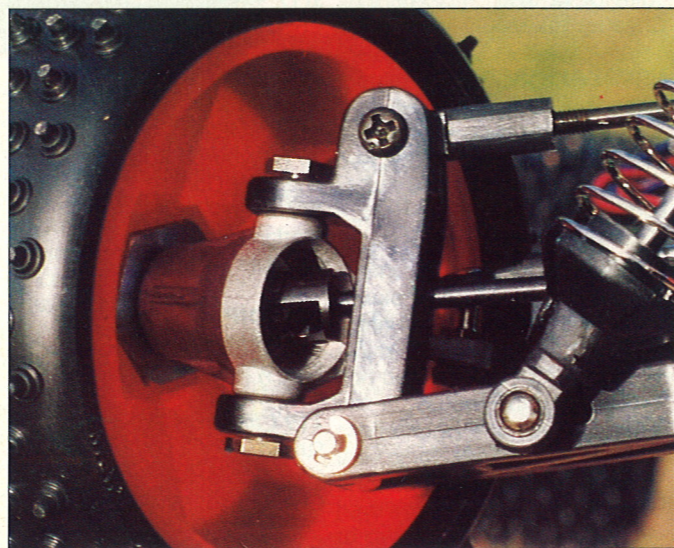


Chassis

The chassis is made out of black GRP and can take both saddle pack and stick pack batteries. The saddle pack batteries fit straight in (and there are cut-outs for seven cells), whereas the stick pack batteries need two extra plastic mouldings to be screwed to the chassis. On its own the flat pan GRP cut-out is very weak and flexible but when the top brace (again made out of GRP) is fitted to the construction, the whole car becomes quite rigid, but obviously not as much as if the chassis were made out of carbon fibre.

Seven out of ten.

☞ Magnesium front steering blocks.



Drive Mechanism/Drive Train

The drive mechanism is so similar to the one on the Yokomo it isn't true. It incorporates two drive belts (2mm pitch), one long and one short. The longer one goes from the centre differential/spur gear to the front differential. The shorter belt also goes from the centre diff/spur gear to the rear differential which, to all intents and purposes, is the same as the one used at the front.

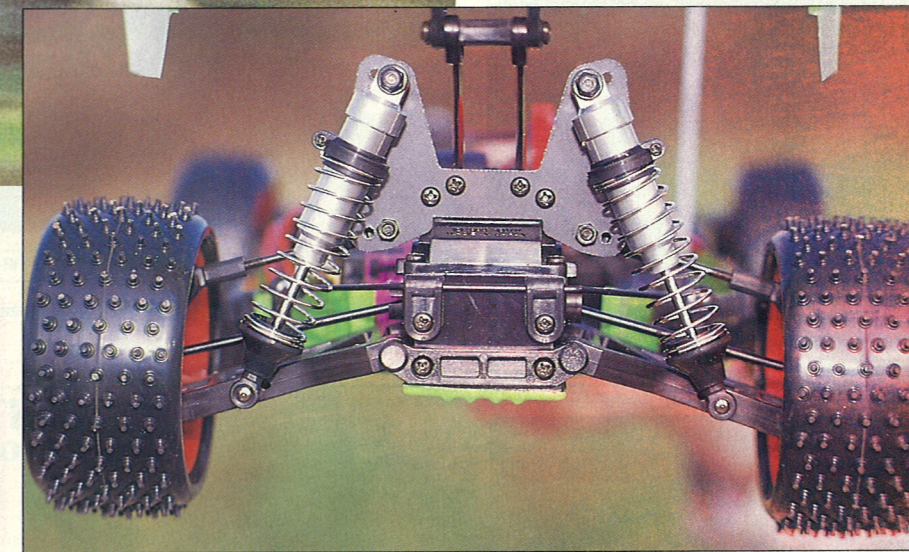
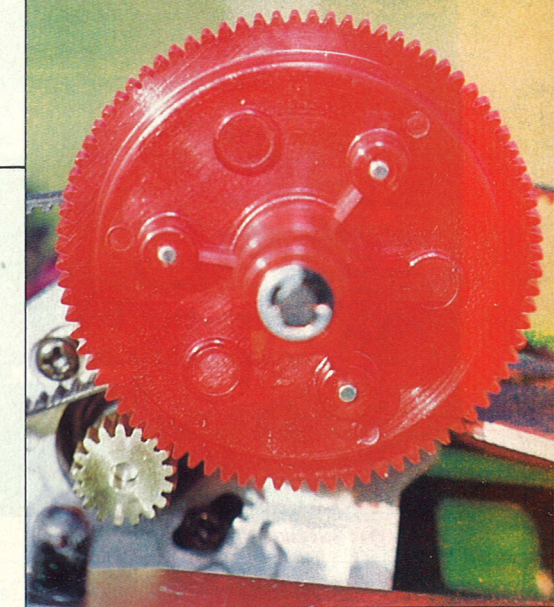
The spur gear is one thing I don't like about the kit, it just looks too cheap and brittle. If you managed to strip one of the teeth off it, it would be a good 15 minute job to change it over for a new one, which really is too long for that type of maintenance job.

Eight out of ten, but the spur gear is a big minus point.

TOMY INTRUDER



☉ 17 tooth pinion gear is supplied as standard.



☉ Rear anti-roll bar and shock tower can be seen here.

Body

The body, undertray and wing are all made from clear polycarbonate for strength and lightness. The quality of moulding is very high and the 'cut out' lines are clearly marked on all three mouldings. The low, mean looking body sits well on the car, and once coupled up with the undertray, provides excellent weather protection for the chassis and electronics. The wing sits very high up on the car, and is retained by an adjustable plastic moulding which can be set at different angles and positions.

Seven-and-a-half out of ten.

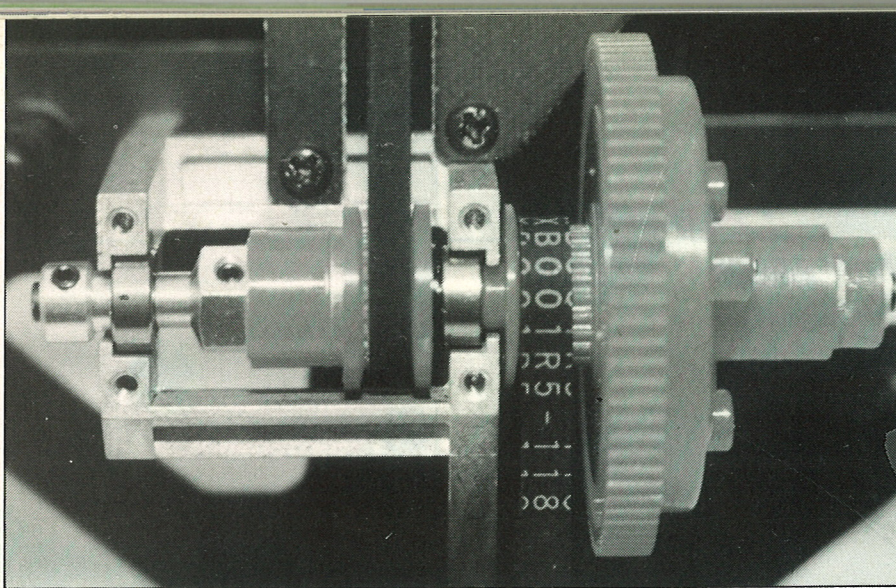
Gearboxes and Differentials

The differentials are both fully adjustable ball types, which is generally the best design for the job. They are supported either side by two large ballbearings, which are in turn housed by plastic eccentric carriers, à la Schumacher. The gearboxes themselves are plastic mouldings, front and rear, which are quite strong and well made. Making use of the eccentric bearing housings is a really good idea as it makes long and short belt adjustment very easy.

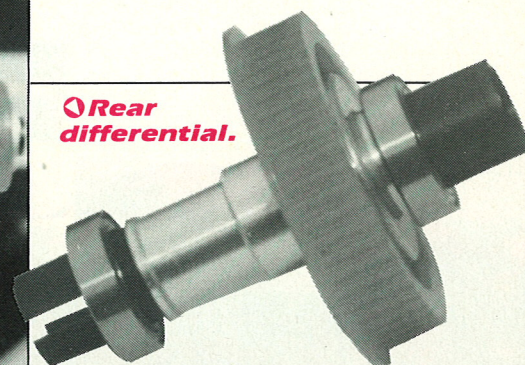
One fairly unique feature of the Tomy Intruder is the fact that a choice of four drive systems can be used. This gives you a lot of scope depending on the track surface and conditions.

Eight-and-a-half out of ten.



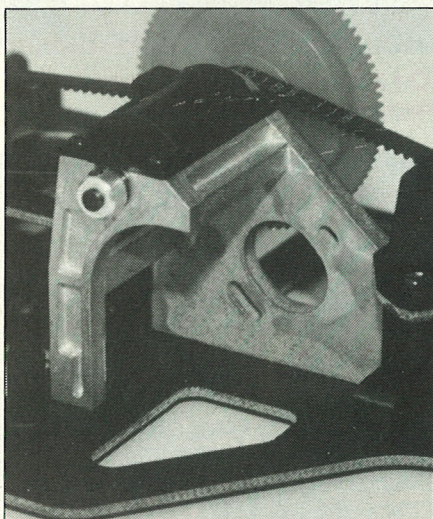


Ⓞ **Magnesium motor mount.**

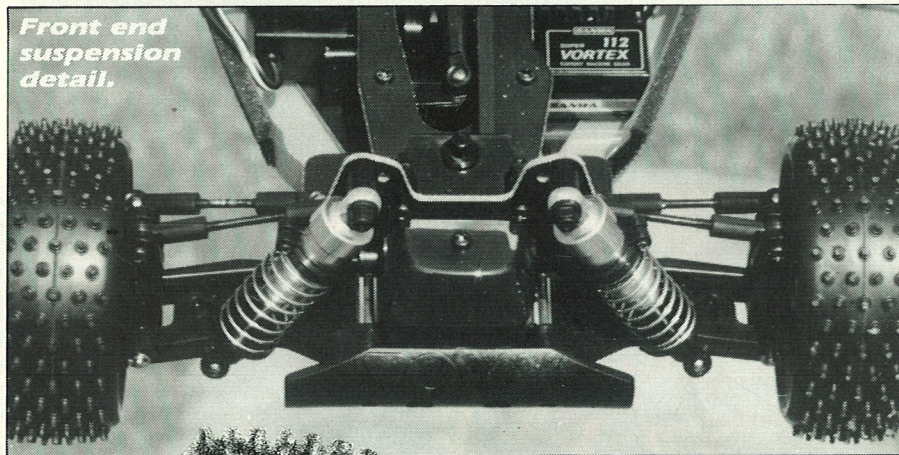


Ⓞ **Rear differential.**

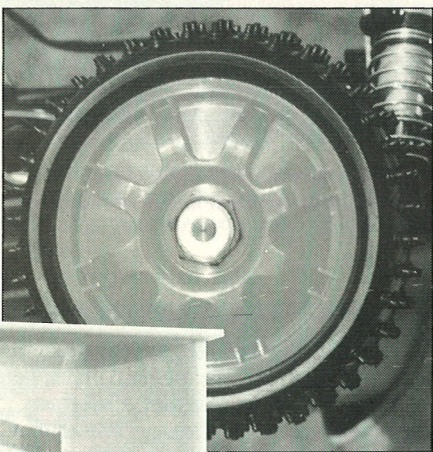
Ⓞ **Centre differential/spur gear assembly.**



Ⓞ **Those soft grippy tyres.**



Front end suspension detail.

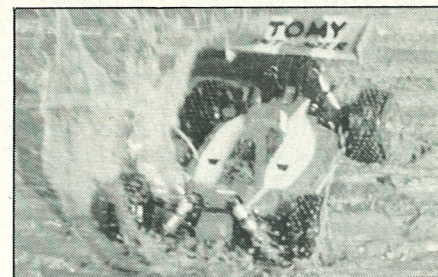


Ⓞ **Low profile wheels and tyres.**

Wheels and Tyres

When you first look at the car it looks very much like a 1/8 rallycross racer, mainly due to the wheels. They are made out of red plastic (as is much of the kit) and are a cross between a spoked and dish design. The tyres are made from a soft rubber compound and have a very low profile. They use a fine pin spike type pattern and provide 'loads a grip!!'

Eight out of ten.



Shock Absorbers

As to be expected with a racer's kit, the shock absorbers consist of an oil-filled alloy chamber, surrounded by a coil-over spring. Two small plastic 'O' rings are used in the bottom of the damper chamber to stop the oil leaking out and the design, so far, seems to work well. Longer units are used at the rear of the car, and they are situated in a rather precarious position, ie one good knock from the back, and the shock absorbers could be severely damaged! The front units are slightly better protected by a small plastic bumper, although heavy crash damage could still occur.

Seven-and-a-half out of ten.

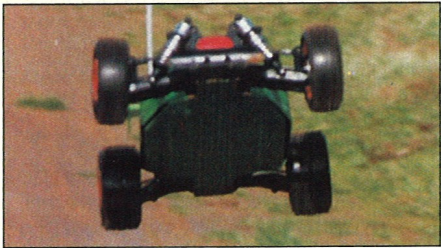
Buildability

The Intruder was not a bad kit to build. It took around six hours and no major problems were experienced, except the thrust races in the differential (see below). All of the plastic mouldings fitted very well and no bits of the kit were missing.

Eight out of ten.

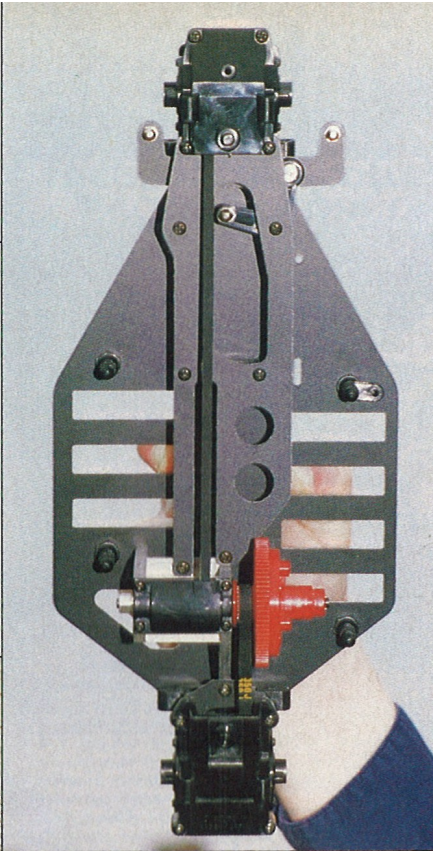
CONTINUED ON PAGE 51

CONTINUED FROM PAGE 44

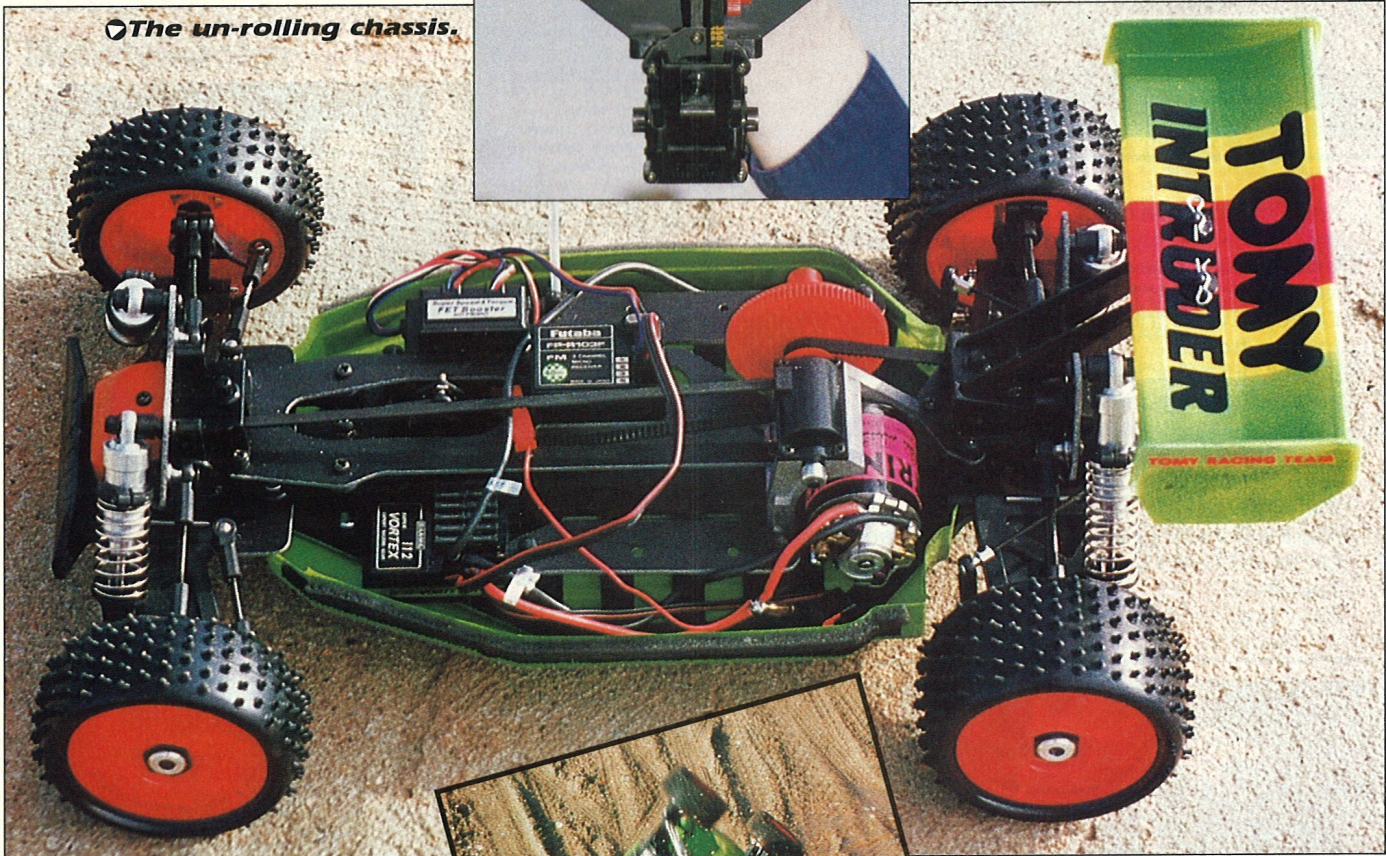


TOMY

The un-rolling chassis.



Radio Gear
A Futaba FP-R103F micro 40MHz receiver, a KO FET servo and the new Sanwa 112 Super Vortex speed controller were used to run the car. Fitting the radio gear wasn't too much of a problem, but there isn't a lot of room to spare on the chassis. The Trinity motor sat mid-engine, ie in front of the rear wheels, as is the usual design for all modern 4WD racers.



Problems

The only thing in the kit (apart from the spur gear) I didn't like were the thrust bearings in the differential. These consisted of two washers, nine microscopic balls and a lot of grease. The way the instructions described how to build them was useless, so a better method is as follows.

Place two washers on the long diff screw, about 1.5mm apart. Carefully fill up the 1.5mm gap with the grease provided, and place the nine balls around the circumference of the grease. Then carefully insert the completed unit into one half of the differential, making sure none of the small balls drop out. This is a much easier way of building the thrust assembly.

Two out of ten.





INTRUDER

Track Test

The car handled very well indeed, being extremely stable even with a 12x1 under the bonnet. The tyres provided good grip on wet sand/dirt/grit.

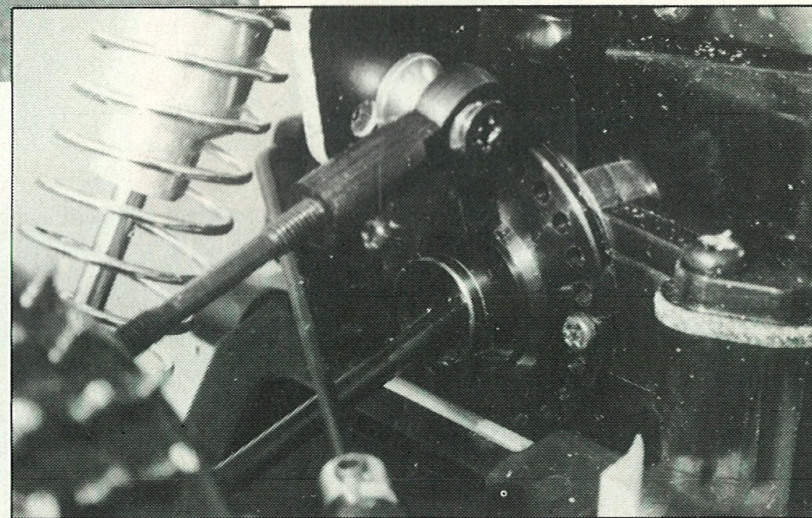
The Tomy Intruder is possibly the best jumping car I have ever driven. The usual BMX track was used to run the car and it was jumping well over 20 feet off some of the larger obstacles, and it was landing perfectly, almost every time!

Eight-and-nine-tenths out of ten.

🕒 The eccentric rear bearing housing can be seen here.

Technical Information

1. Four drive systems can be chosen:
a 60/40% torque split with a centre differential
a 60/40% torque split with a centre differential and one way rollers for the front wheels
Direct drive to the rear wheels with one way roller for the front
Direct drive for the front and rear wheels
2. High efficiency 2mm pitch drive belt.
3. Belt tension adjustment with eccentric bearing housing.
4. GRP double deck chassis.
5. Ball differentials, front and rear.
6. Magnesium alloy motor mount and steering blocks.
7. Large diameter wheels with low profile tyres (à la Yokomo).
8. Rear anti-roll bar.
9. 16 ballraces.



Conclusions

Not bad at all. It should do quite well, especially if some of the top drivers decide to run one. It should be able to compete with the Yokomo's and Cat's without any problems. ●