R C M C

KIT REVIEW

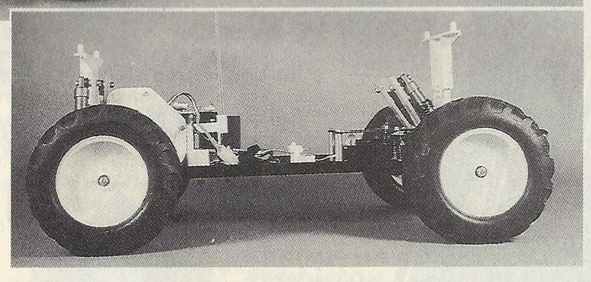
DAYS OF THUNDER

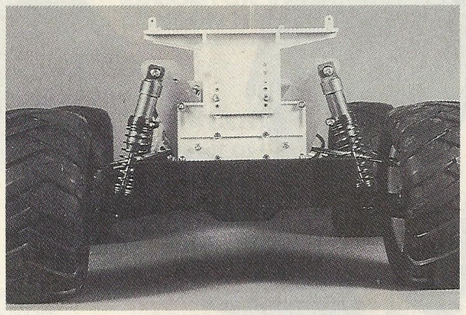
MRC have created a whole new formula and racing scale with their 1:7 2WD off road racing cars, RCMC build the Thunder King

Well, did admit to the ed. a few months ago that I quite like the big wheel jobs, and to be fair to him he has let me try a few from time to time. So, when a phone call told me that another was on the way I was well pleased, but perhaps a little surprised. Why doesn't he try this one for himself I thought.

A few days later the kit arrived on the doorstep and I knew the answer. For those that know the ed. you will recall that he is small (but perfectly formed) and the kit was just too big for him to get out of the box. All right, I joke, it is just a lengthy way of saying that this kit is definitely on the large size (and the ed. is not perfectly formed).

Thunder King's chassis follows conventional 2WD design, but the extra size and weight gives the 1:7 scale car a slowly and less twitchy feel on the circuit.





Building

Model Rectifier Corporation have been in the US model business for many years distributing the Tamiya product range. Now they have taken the courageous step of introducing not just another RC kit to the market place, but something that is so different that there is really nothing else that can be measured against it.

Claimed to be around 1/7 scale the dimensions of the body actually measure around 53cm long x 38cm wide. So by anyone's standard it is ample.

Some of the features would not sound out of place describing some of the conventional 1/10 products around. A very rigid black anodised aluminium chassis, metal oil filled shock absorbers, independent suspension all round, ball raced gearbox with ball differential and slipper clutch and driven by two motors. Ok, that last bit is a bit different. The idea is that to shift this monster along you are going to need some extra oomph. So two motors are provided, driving onto a common spur gear which carries the slipper clutch. The slipper uses Rulon, a material commonly found in peg type slipper clutches. However this slipper is based around two discs of the material located on either side of the main spur gear. A compression spring allows adjustment of the slipper action. The main gearbox housing is all nylon with the internal gears being a mixture of metal and nylon. There are a fair number of cogs in the gearbox and not too surprisingly the rotating masses do give audible warning of approach, being of mangle wheel proportions. The final drive from gearbox output to the rear wheels is by steel dog bone drive shafts.

There are a few bits to fit to the chassis such as battery holder and speed control mounting, but basically the chassis is so large you could fit just about whatever you wanted and still have room to hold a dance on the remainder. The front end suspension is pretty similar in style to the rear. Independent wishbones pivoting on steel pins. Just about all the pins and shafts are held in position with E clips. As everything is so big it becomes very easy to build. I suppose a nice way to describe the engineering is agricultural, I don't mean that it' all lumps of iron held together with Whitworth nuts and bolts, its just big. The GRP shock towers are cut from 3mm think material and are provided with a mass of holes to allow for various suspension settings. Both front and rear wishbones have three positions for the lower location of the shock absorbers and shock absorber themselves come with the usual range of piston options for varying damping effect.

Finally the wheels and tyres. The single piece wheels are carried on good fitting plastic bearings and of course ball races could be an option. I appreciate that for standardisation MRC have chosen the usual size of 5mm x 11mm wheel bearings, but with wheels measuring around

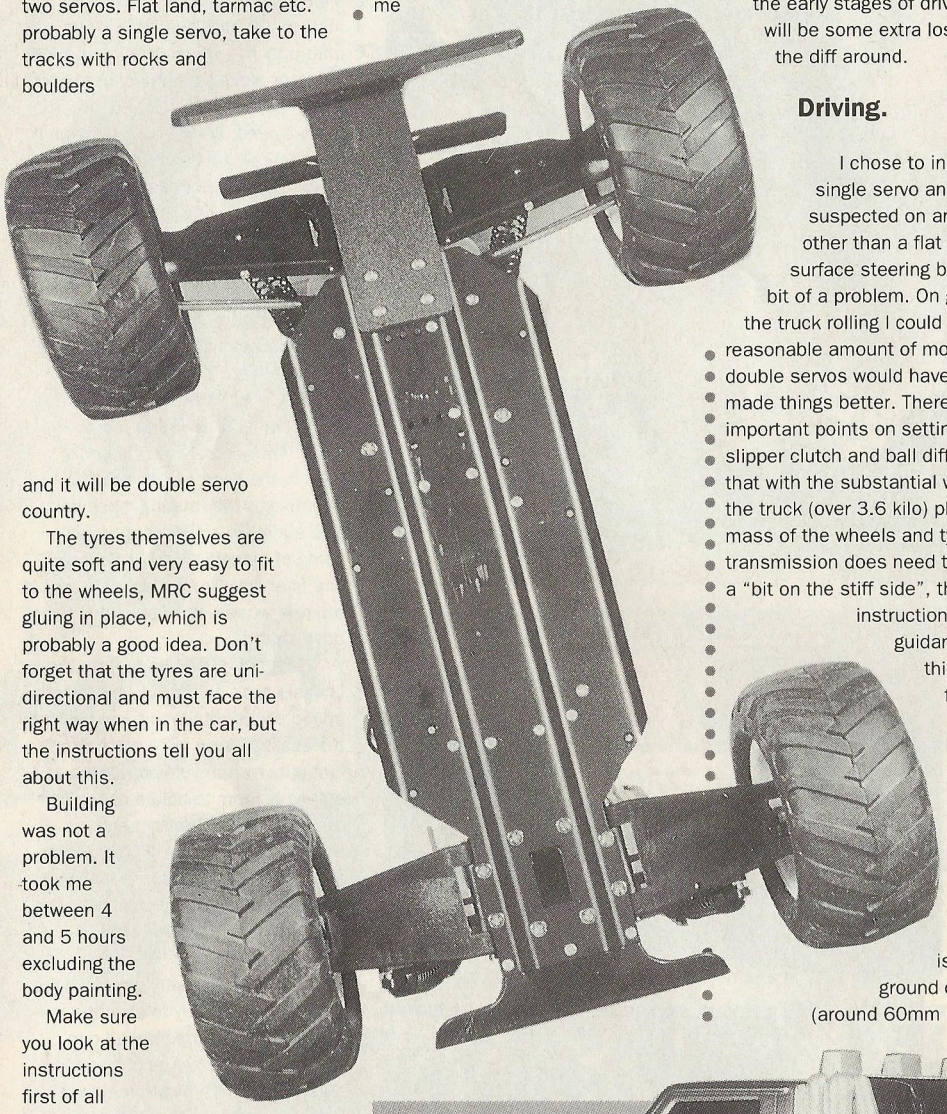
145mm, I think that the bearings are just a bit on the small size and I am just not sure how long the plastic ones will last. Especially when you remember that the steering is designed to take two servos, so great is the load when steering the front wheels. Certainly trying to turn the wheels with truck stationary imposes quite a load on a single servo. I think that you would need to consider the sort of terrain likely to be covered before deciding on one or two servos. Flat land, tarmac etc. probably a single servo, take to the tracks with rocks and boulders and it will be double servo country.

The tyres themselves are quite soft and very easy to fit to the wheels, MRC suggest gluing in place, which is probably a good idea. Don't forget that the tyres are uni-directional and must face the right way when in the car, but the instructions tell you all about this.

Building was not a problem. It took me between 4 and 5 hours excluding the body painting.

Make sure you look at the instructions first of all because there is an addendum sheet and corrections must be made to the well detailed manual. Forget to do this and you can spend minutes in head scratching mode. A very good feature about the kit was the inclusion of screws in the same bag as the plastic or metal parts they are intended to fix. In addition all the bags were identified with a number plus they had a brief description on the label of the contents, a very good point. This saves a lot of time hunting through the screw bag trying to sort out 3 x 6mm from 3 x 8mm screws, I just wish more kit makers would follow this practice. All the plastic parts were excellent fits and the general quality of component and finish was first class.

A small amount of grief was encountered trying to put the servo savers together. Firstly compressing the spring and fitting the E clip all at the same time made me realise how useless it is having only two hands. This was followed by the discovery that I had assembled them the wrong way round. A quick natural break, a few sticking plasters, a pair of gloves and the problem was soon fixed. Some parts of the diff were also a bit on the stiff side to assemble and although I managed to get them together eventually, I think smaller fingers may not be strong enough. I feel sure that things will loosen up soon enough but in the early stages of driving there will be some extra loss churning the diff around.



Driving.

I chose to install a single servo and as I suspected on anything other than a flat hard surface steering becomes a bit of a problem. On grass with the truck rolling I could achieve a reasonable amount of movement but double servos would have definitely made things better. There are some important points on setting up the slipper clutch and ball diff. I found that with the substantial weight of the truck (over 3.6 kilo) plus the high mass of the wheels and tyres the transmission does need to be set up a "bit on the stiff side", the instructions give you guidance with this, but I still found I needed more adjustment. Speed, as you might imagine is not staggering but mobility is. Excellent ground clearance (around 60mm under the chassis), soft suspension and soft tyres means that you can clamber up some pretty significant slopes. The makers claim the truck to be tough, not indestructible but substantially robust. It was not my intention to set out to break anything and I am pleased to report that I didn't. I should say that when I first saw one of these monsters at Nuremberg earlier this year, MRC had just finished repeatedly driving their sample flat out into a concrete wall. A strange thing to do in retrospect, but it at least proves the bumper can take the knocks. It is worth mentioning that the kit comes with a heavy duty extra bumper, if you are inclined to drive into concrete walls then you would do well to consider fitting it.

Another point worth mentioning is the speed control resistor which is mounted on the aluminium chassis. All speed controls heat up, mechanical types more than others, but the use of the chassis as a heat sink means that the heat is easily and quickly dissipated, from one who has singed the tips of his fingers on more than one occasion this is much appreciated.

Conclusion.

Definitely a macho truck, easy to build, tough and durable. I dread to see them on the race track as collisions of all that plastic and aluminium could be an ECO disaster. The motors are wired in parallel and produce plenty of power for my gentile driving style. Of course there is always the option of fitting high performance motors, but remember with two motors sucking energy from the batteries, duration will be pretty brief. So if you want to frighten everything in the neighbourhood including the local rogue Rottweiler then this is the beast for you.