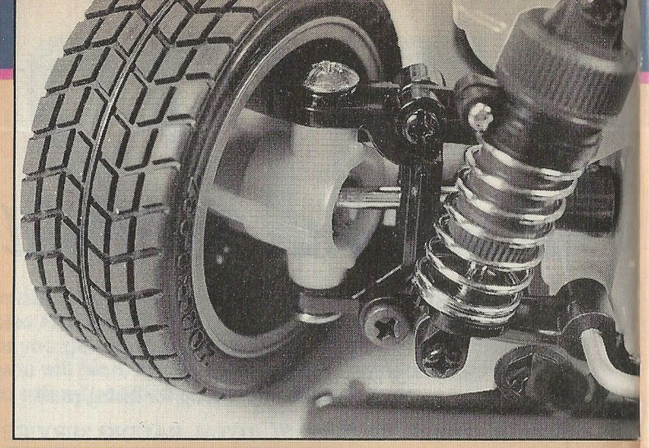
Taking Saloon car racing by storm is the Nissan GT-R Geoff Driver looks at the Tamiya RC Model

Nismo RACER



You know, as soon as you see the Tamiya label on the box that the goods inside will be top class.

Having built enough Tamiya kits to nearly reach a decision one instinctively knows what lies beneath the lid of the box. The only mystery to be discovered is what colour dye Tamiya have added to the plastic compounds this time.

In a way Tamiya have taken all the surprises out of building an RC kit. You know that the instruction will be easy to follow, that the parts will fit perfectly and their will be no bits missing.

Not that I yearn for the days of trying to understand the Pigeon English or trying to force bits of plastic together that were designed by different engineers living 1000Km apart.

And what about searching through the Axminster because you cannot find an essential bit that you assume has just dropped out of the box, which in fact was never there in the first place. Ah those far off days. Tamiya predictability has put an end to all of it.

Just as well. Nowadays we all expect and demand the highest quality. It might be Ok for us veteran RC nuts who were weaned on the dubious quality of some ill fitting parts, but what about the new generation. Frustration was never part of the deal when they decided to have a go at the RC game. So what does all this rambling lead too?

The ease and simplicity of building this kit is what RC construction is all about.

With the passing generations of RC cars, Tamiya and others have learnt the lessons of reliability without forsaking performance. Little things like minimal use of nuts and bolts. They rely upon self tappers into plastic. These are much less likely to undo and of course there is no need for thread lock adhesive, the scourge of the pits. Design features like fully enclosed gearboxes, ball differentials, new and improved plastics have all added to a product which will not self destruct at the first sight of a 150mm drop.

So with all this predictability is there anything left for Tamiya to come up with. Well of course there is. Just because there is years of experience behind them it does not mean an end to innovation.

In fact a lot of the features on this new Tamiya car have made their debut on other models. So in a way the success of the design is proven. This is good news for the first time buyer as there should be no nasty surprises lying in wait.

Chassis

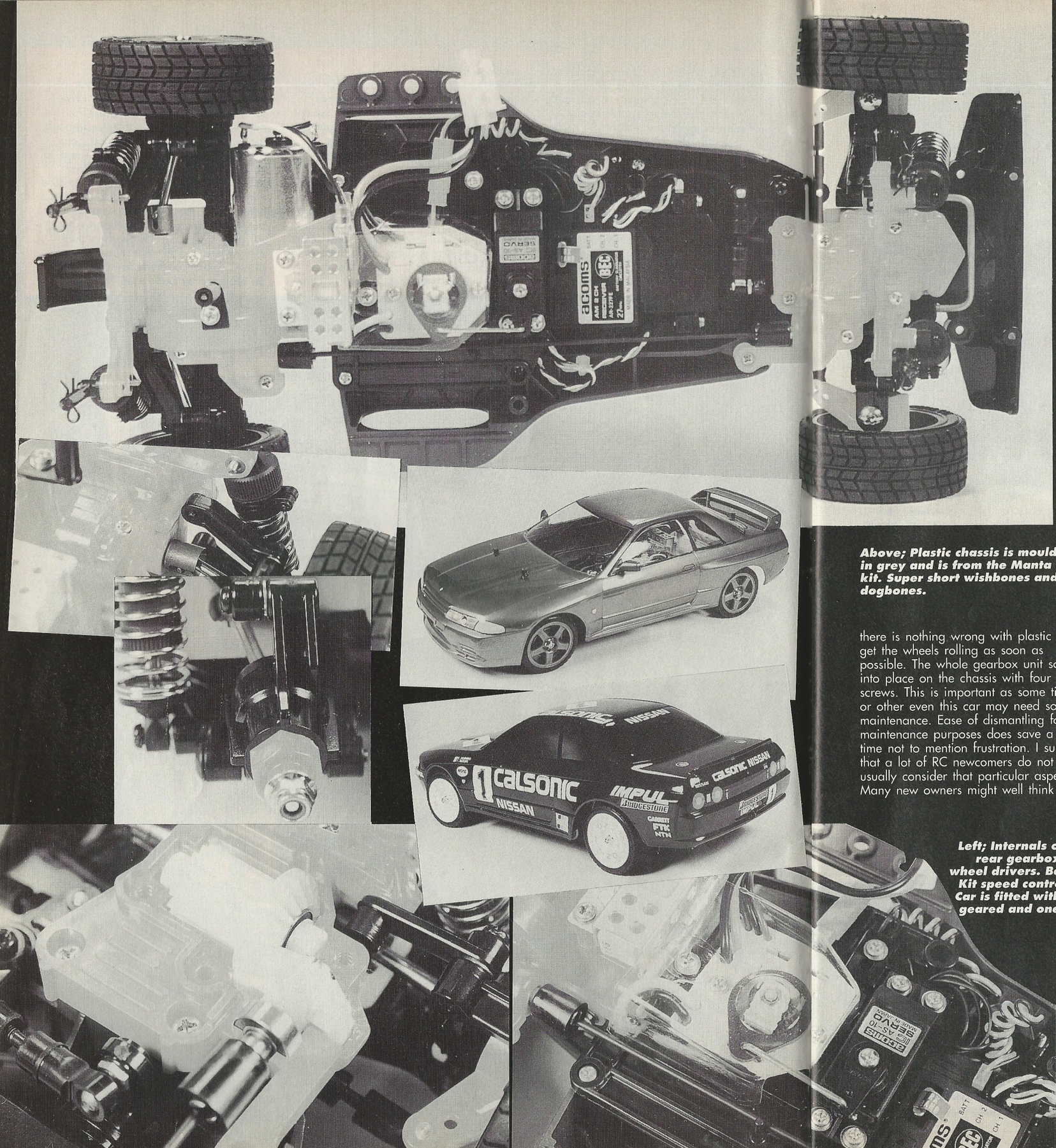
The chassis is the good old Tamiya bath tub design. Hold on though there is something a little different here because the base of the chassis looks as though it has been modelled on a bee hive. The whole of the floor area is a lattice work of hexagonal lips. In addition there are various other strengthening sections within the tub. The purpose is obviously to increase the strength and rigidity without adding to the weight. By means of the highly sophisticated torsional measuring device available I checked the rigidity of the chassis. What that means is that I tried twisting it with my hands. Well it seemed Ok, whether it is a lot better than a normal bath tub it is not easy to say. One thought I do have is that those honeycomb sections are going to eventually fill up with all the rubbish of racing from muddy water to grease and oil, it is going to be the very devil to clear it all out.

Perhaps it should be said at this stage that not only the honeycomb chassis moulding but every moulding on the car has an outstanding finish. The accuracy of the various bits is so good they almost leapt together by themselves.

The main transmission unit.

The motor supplied with the kit is the traditional 540 style this drives into a fully enclosed gearbox. Tamiya (as always) are out to make the constructors job as easy as possible. They have even provided a gauge to ensure that the motor pinion is fitted at correct position on the motor shaft.

Within this main gearbox a pair of bevel pinions provide an output drive for the front to rear prop shaft. The rear wheel drive train continues through the gearbox picking up the dog bone drive shafts to the rear wheels. These so called dog bones now have the ball end moulded in plastic. I am not to sure why this should be so. It could be cost, better wear, lower friction, whatever the reason Tamiya make no reference to it. All bearings within the gearbox and everywhere else for that matter are plastic. These could (money permitting) be replaced by ball races. However



Above; Plastic chassis is moulded in grey and is from the Manta Ray kit. Super short wishbones and dogbones.

there is nothing wrong with plastic to get the wheels rolling as soon as possible. The whole gearbox unit screws into place on the chassis with four screws. This is important as some time or other even this car may need some maintenance. Ease of dismantling for maintenance purposes does save a lot of time not to mention frustration. I suspect that a lot of RC newcomers do not usually consider that particular aspect. Many new owners might well think that after building the car that is an end to it. A model car is no different to a real car, parts wear and break and must be repaired and adjusted. "In car" access to the major units of the gearbox is made easy by means of a removable gearbox top cover. Most other work can be carried out without the need to totally dismantle the vehicle and start from the instructions up.

Moving on to the front transmission unit which is moulded in startling red (the same as the rear gearbox) the drive input is turned through ninety degrees with a couple of bevel gears and then through a simple gear train to the front, gear type differential. The gears in the differential are die cast and with the appropriate lubricant ladled in the whole thing rotates nice an smoothly. Once again four screws keep the front gearbox in position. As far as I can make out the gears appear to moulded from nylon or at least it is a material very similar in appearance and characteristics. What is noticeable about the gears is the size of them. To ensure there is no problem with the gear loading and tooth stripping, the width across the gears is best described as ample. This is a good feature.

Left; Internals of the rear gearbox and wheel drivers. Below; Kit speed controller. Car is fitted with one geared and one ball diff.

Suspension

The usual all round independent suspension is by four "coil over shockers". Both front and rear suspension use fairly short bottom wishbones and a similar length top arm, this ensures that the wheels fit inside the body profile comfortably. The wishbone pivots are Tamiya's exclusive design of pivot bolt. It rather neatly gets over the problem of having to fit E clips to pivot shafts. The design of the pivot bolt has a short thread which screws into one side of the wishbone, the remainder of the bolt being a plain shaft. Once again a good Tamiya idea for keeping construction easy.

The front wishbones pivot on a U shaped rod which locates both wishbones. The front bumper keeping the U rod in place. I have to say I cannot understand why Tamiya have designed such a part. It does mean that if you need to work on, or replace suspension parts on one side of the car then both sides will fall apart.

I would have preferred the system used at the rear of the car for pivoting the wishbones.

It is not possible to adjust the rear suspension geometry, and in a way it is probably a good thing for first time buyers. It will be a difficult job getting used to toe in and out principles at the front of the car.

Tamiya have used what I suspect are front hub/swivel units from another model. To keep the track within the body the wishbones are kept quite short, as already mentioned. The net result of this is that the front wheels steering pivot point is quite a distance from the centre line of the tyre. In fact this does not appear to affect the steering adversely. The plastic oil filled shocks are the Tamiya standard units fitted to most of their vehicles. Don't run away with idea that just because they are made of plastic they are in any way inferior. They are good, sure if you want to pay out lots of money then alternatives could be bought, but in my book these shocks are excellent. They come with 3 different pistons to give a range of differing ride handling characteristics. Plenty here to experiment with. The shockers have internal stops fitted to reduce suspension movement, otherwise the chassis of the car would be dragging its belly on the tarmac. The maximum front under diff chassis movement is about 8mm. This is quite adequate for a road car, wheel movement is around the 12 – 13 mm of travel.

Radio installation.

This is where the car's designers have really sorted things out. I remember the days of using all sorts of peculiar brackets to hold servo's in place. Now all the brackets and fixtures are all in place waiting for the radio to be dropped in. Adjustable servo mount, fittings provided in the parts bag, it could not be much easier. I have to say that this is a giant step forward to take grief out of construction.

Wheels and tyres.

The wheels are moulded in two parts and are a five spoke design. They are held in place with a single nut on the drive shaft. The drive is coupled to the wheels by a hexagon nut, a system which must be said is not exclusive to Tamiya. The realistic tread pattern on the tyres looks really good, modelled straight from a real high performance tyre catalogue. The tyres are very low profile giving just the right look to the completed car.

Body

This magnificent body moulding is outstanding. Not only does it have all the detail normally expected of an injection moulded body but Tamiya have even managed to profile the body in under the doors, no mean achievement. Some small detailed parts are included such as the mirrors but it is the shape, detail and finish of this moulding that will make it an eyecatcher, so do take care when you paint it.

Conclusion.

A great looking car. Very easy to build, it took me around 4 to 5 hours, with of course the standard classic Tamiya instructions. The kit is very complete including oil, grease and a few tools. Thinking back I only needed a screwdriver and a pair of pliers to complete the job.

If you are looking for an on road car with all wheels driven in the Japanese classic style then this must be it.