

Review by  
Andy Carter



# Beetle Mantua

Mantua have made 1:8 IC off road an affordable option with their pull start, rear wheel drive beetle

The Mantua Beetle is a 1/8th scale, 2 wheel drive, i.c. powered off road buggy which is aimed toward the beginner/novice market. The kit comes complete with a SG FORCE 3.5cc engine and silencer along with a robust pull start system, thereby avoiding the necessity for

an additional starter and battery. The Beetle is only one model in a complete range from Mantua who are an Italian company, also known as SG or GARBO. They tend to use different names to signify their different product ranges such as their top level 4WD buggy - the SG Extreme.

### Construction

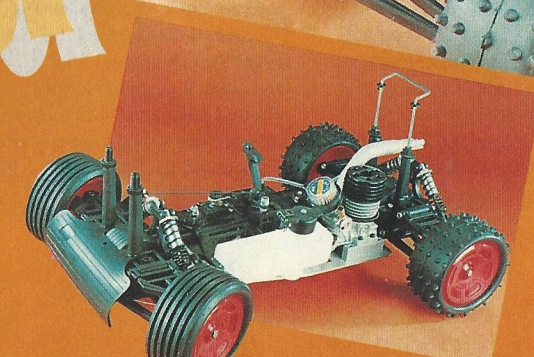
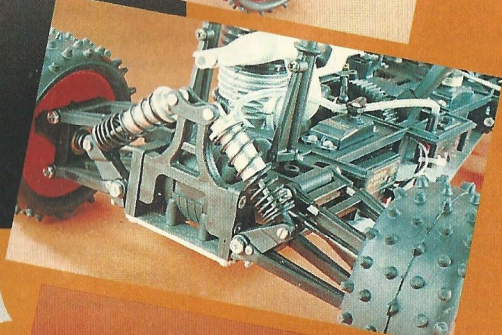
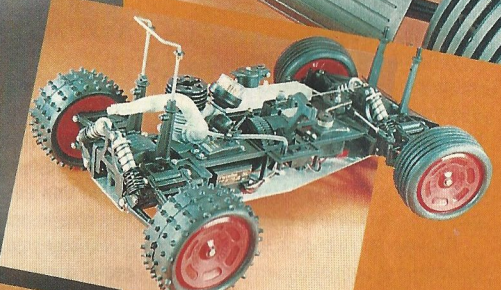
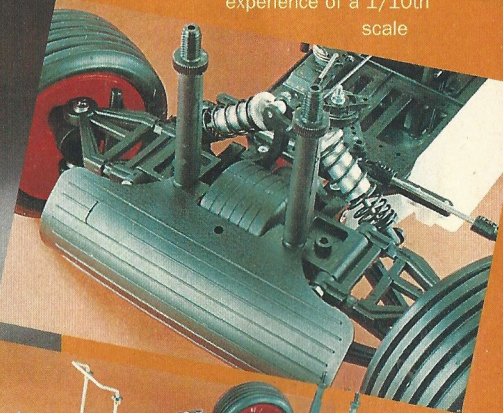
The kit contains a multi-lingual instruction booklet with paragraphs in five languages - Italian, English, German, French and Spanish. Unfortunately, the translation from Italian to English has certainly lost some of its

clarity and you are left with a distorted version of our native tongue. Still, I can't even speak a word of Italian so I can't really fault it too much. The instructions start with listing 'all' of the relevant items that will be required to complete the kit such as a 2

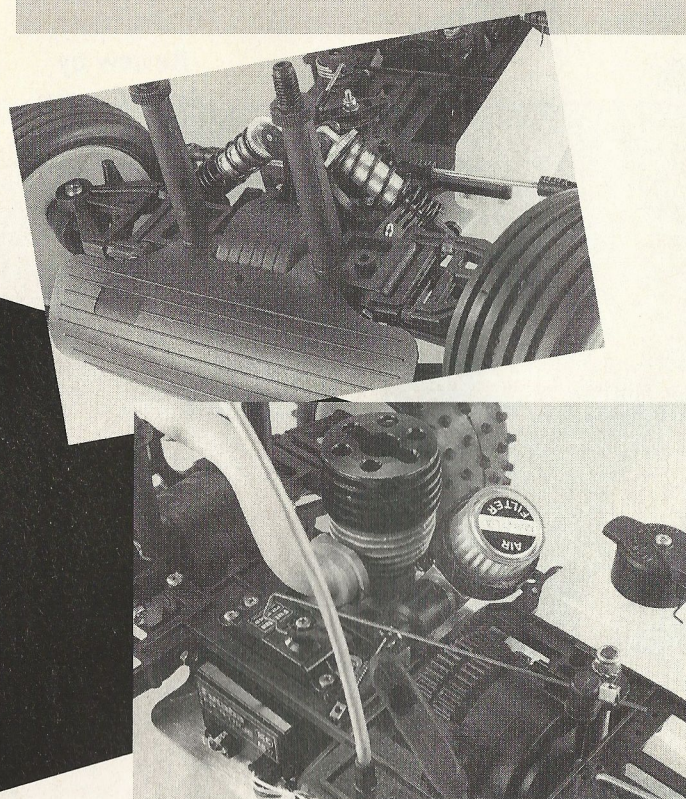
channel radio control set, fuel etc. Unfortunately, although the instructions point out that you will require fuel and a glow plug, at this stage they fail to state that you will also require fuel tubing and a fuel filter. It is important therefore, in

my opinion, that the advice of a good model shop who is familiar with 1/8th scale cars and their requirements is sought before the point of purchase because there is nothing more annoying and frustrating than finding out that you haven't got everything that's needed to complete your new kit.

The instructions then go on to list the tools that will be required. The list is very comprehensive and, to those of you that have only got experience of a 1/10th scale







Tamiya kit, it can be quite daunting. The first thing to realise is that they do not fall together like the Tamiya kits and such like. Whilst it is predominantly still purely an assembly exercise, there is more of a need to understand how the kit works in order to achieve the best results.

### Already done

Parts of the kit are already assembled such as the differential and the pull start system. However, the instructions do show how these parts go together just in case you ever need to refer to them in the future for maintenance purposes.

The assembly begins with the pressed flat aluminium chassis plate which looks to be very strong and durable. A plastic gear protector is screwed to the underside of the chassis along with the big plastic front bumper. The rear gearbox housing is assembled next which contains the pre-built differential. This is supported by ball-races and the output cups are secured using thread locking compound (not supplied). A dummy front gearbox is also screwed onto the chassis at this point. Because the text is not that informative, care must be taken to ensure that the correct screws are put in their respective places. Fortunately, all the require fasteners for each

assembly stage are packaged in separate bags with the stage number on them. This does help the assembly process a great deal although the combination of a single photograph and a paragraph of pigeon-

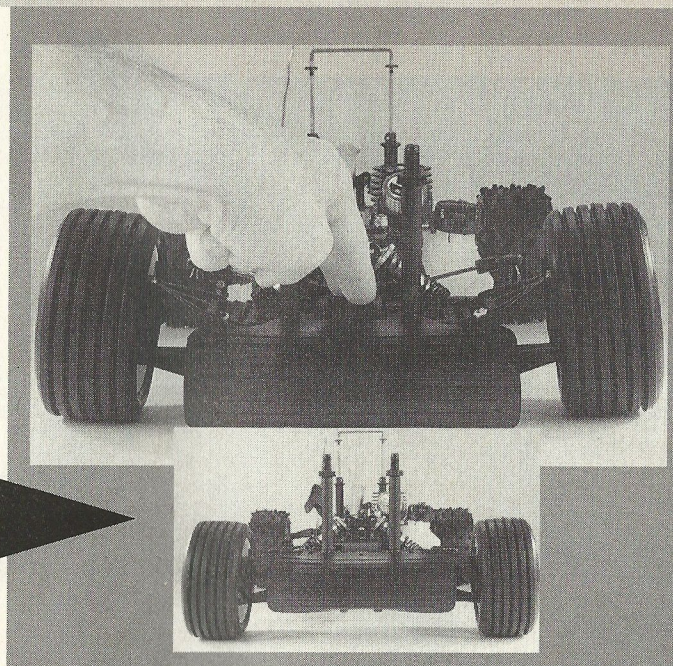
English text can result in the wrong screw being put in the wrong place so care must be taken - YOU HAVE BEEN WARNED!

### Next up...

The pull start system and the main gear and drive shaft are next assembled to the chassis plate. The brake system is also contained within this assembly and acts by two plastic semi-

circular rods sandwiching the brake disc. Under normal conditions, the disc is allowed to spin along with the drive train but, once the brakes are applied, the plastic rods clamp onto the disc thereby slowing it down.

Once the pull start system has been installed, the front and rear suspension brackets are assembled together and secured to the chassis. At a glance, the front and rear brackets look identical. This unfortunately is not the case as the mounting holes for the chassis screws are in slightly different positions. At this stage, the front and rear damper mounts are screwed to the plastic wishbone mounts which results in



a box section that, once assembled to the chassis plate, completely shroud the gearbox housings. The front and rear suspension is then located to these mounts. The suspension is via double wishbones both front and rear although optional adjustable versions are available so that the camber and caster can be finely tuned. Small screws act as bump stops to limit the suspension travel and can be adjusted to suit the terrain. As with all of the plastic mouldings in this kit, the wishbones look to be extremely durable and strong and should stand up to the rigours that this type of kit will be subjected to.

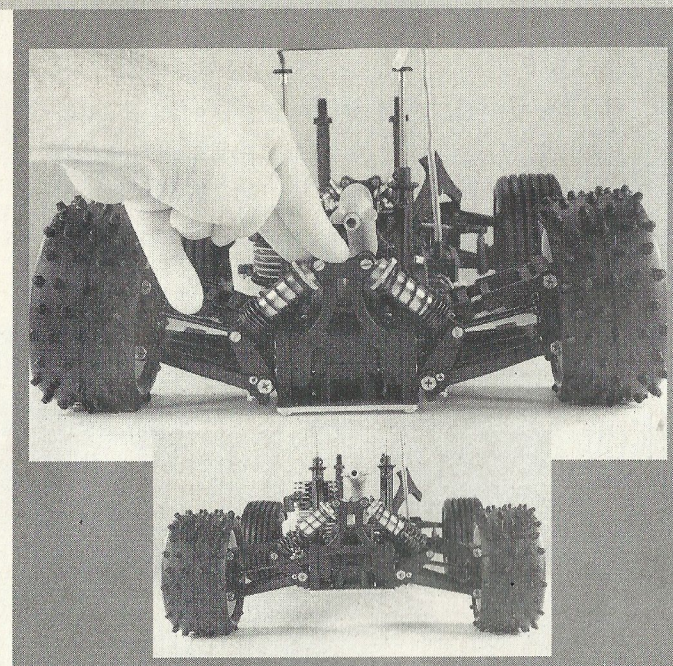
Two different kits are available from the importers Windsor Models, and basic version and a deluxe version. We had the Deluxe version which contains the optional ballraces for the wheels and the optional oil-filled shock absorbers rather than the plain coil sprung units supplied in the basic kit. After installing the front and rear stub axles along with the rear drive shafts, the oil filled shocks need to be assembled and filled. All four shocks are identical and contain the standard double O-ring type seals. The top of the shock barrels are threaded which enables the spring rates to be increased or reduced simply by turning a knurled nut. The springs themselves are progressive rate items which means that they are more tightly coiled at one end than the other. This affects the way the car handles so that generally, the small bumps are more easily

coped with without affecting the car's stability over big jumps. Shock oil is provided but Windsor Models also do a range of Silicon oils which is recommended.

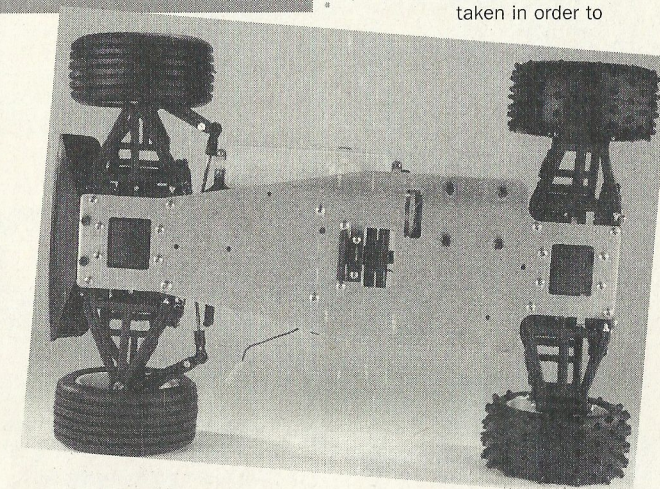
By this stage, the kit is beginning to look complete. The chassis top deck is a sub assembly in itself and contains the fuel tank, steering bellcranks and eventually, the R/C equipment.

The wheels and tyres are next up on the agenda. Ribbed front tyres and big spike rear tyres are provided which should give good, safe handling characteristics to the car. The tyres do need gluing to the rims with a suitable Cynocrylate

glue (super glue). Once the glue has dried, the wheels and tyres can be secured to the car. The wheels are secured with E clips on the axles which, in my opinion, is not very attractive. Whilst it does provide a positive location, I would much rather see a simple lock nut on the end of each axle as that would be more reliable over a long period of time. The engine



and clutch assembly is all that is required to do in order to finish off the rolling chassis. The instructions do actually provide a useful 3D exploded drawing of the flywheel and clutch assembly which makes the task a lot easier. The silencer has apparently been designed to give optimum performance for a 2WD buggy which may explain its rather strange, if not unattractive shape. The silencer is held onto the engine by means of a metal coiled spring which initially didn't seem long enough to go around the engine body but, after a couple of attempts, it fits very snugly. A paper air filter is provided which is



sited on top of the carburettor assembly thereby preventing any unwanted dust or dirt from entering the engine.

Once the engine is installed, all that remains is to fit the R/C equipment and to attach all of the linkages and tubing. The R/C equipment is easily fitted to the chassis top plate. The instructions recommend the use of the rubber grommets supplied with the R/C gear when screwing down the servos. Effectively, these grommets provide anti-vibration mounts and prevent damage to the servo cases. Space is provided for two steering servos although a single good quality standard servo should suffice.

R/C receivers are not waterproof at all and measures should be taken in order to

### Conclusions...

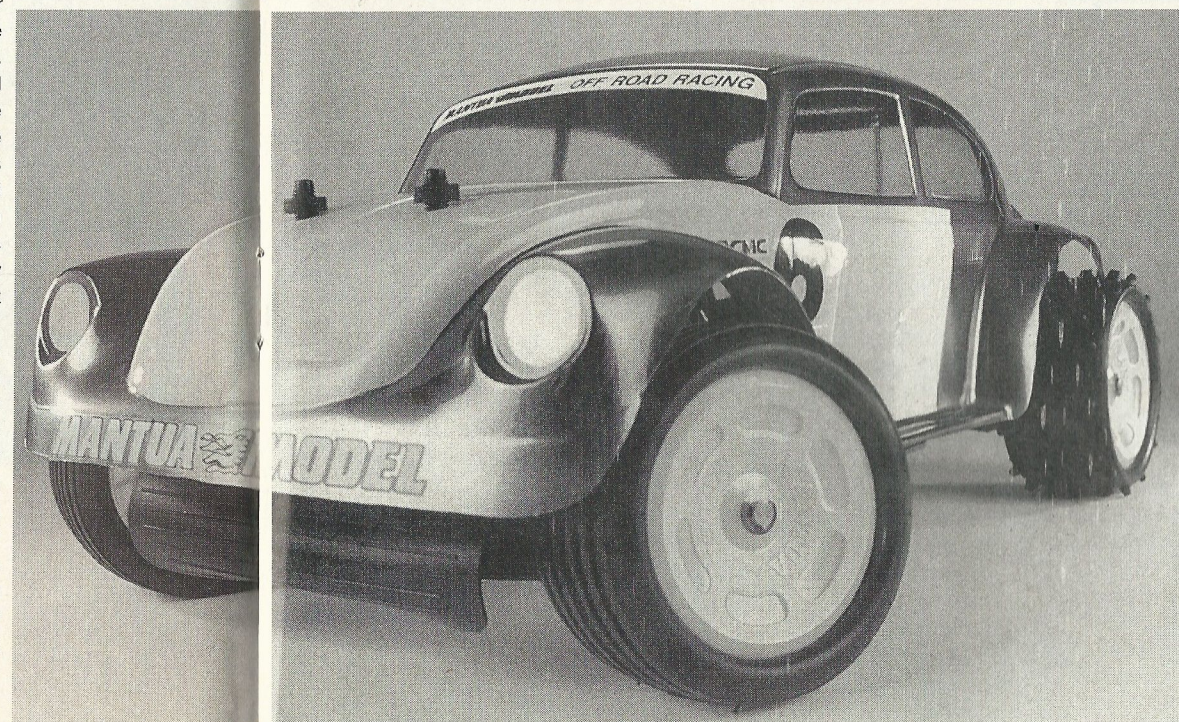
This was the first 1/8th scale car that I had ever built and as such, I was pleased that it didn't give me too many headaches. It is surprising how much extra there is involved in building a 1/8th i.c. car rather than a 1/10th electric buggy which is what I'm more used to. Although the parts fit well together, the kit is quite difficult to follow in certain areas but this is down to the rather basic instructions. Having said that, it went together alright and doesn't present any insurmountable problems. The deluxe kit is, in my opinion, worth the extra 25 or 30 pounds over the basic version as it contains the optional extras that most people will want sooner rather than later. The kit is a good platform for novices (such as myself) to the world of i.c. engined buggies. Once you have mastered the 2WD Beetle, Mantua do a range of optional extras that include a 4WD conversion kit - hence the dummy front gearbox and hub carriers. This also includes a revised silencer which is designed to give more power suitable for a 4WD car.

In order for a kit to succeed, it often takes a committed importer/distributor to help promote the kit. Richard Stitson at Windsor Models is such an importer and he has already organised a winter series for the Beetle at the renowned Slough off road track. With his support, there is no reason why the beetle should not be a success. If you would like to find out more about the Beetle of the other cars in the Mantua range (they also do a Peugeot 205 based on the same chassis), then please contact Richard at the Windsor Model shop or your local Mantua stockist.



prevent water getting into the receiver. The instructions do show the receiver wrapped up in a plastic bag although much neater rubber enclosures are available from specialist model shops.

All that is left to do now is to cut out and spray the bodyshell. The shell is made from polycarbonate and requires painting from the inside. With a body of this size, you can really go to town on the paint job if you like



#### Specification:

2WD 1:8 IC Pull Start

#### Car:

Mantua Beetle

#### Price:

Approximately £249 (basic kit) or £275 (deluxe kit) both include engine and pull start system.

#### Availability:

Now from Windsor Models 0753 856321