

KIT REVIEW

JON TANNER REVIEWS A NEW 'ALMOST READY TO RUN' BEGINNER'S IC CAR FROM RIPMAX

The name of Dynamic Hobby Models is a new name to most of us, and the section of the market they are currently aiming at is the person who wants to get out racing very quickly. To achieve this they have produced a virtually ready to run chassis, totally pre-assembled with the engine, muffler, and two Futaba servos already installed with the steering and throttle linkages already made up. Luxury! Add to this spec a new and unique on-board engine starting system, and you have a very neat package.

The car is available in five popular Rallying or Racing styles; the Lancia Delta Integrale, the Toyota Celica GT4 Turbo, the BMW M3, Alfa Romeo 155 and the Mercedes 190E. The only real difference between each of the cars is the wheel type and the bodyshell, and the manner in which the shell is fitted to the chassis. The review 'kit' supplied by Ripmax was the Mercedes 190E seen here.

The ingenious self starting system: The battery pack 'probe' plugs into the special cylinder head, then by twisting the 'probe', the decompressor button (seen at the rear of the head) is depressed, allowing the motor to spin. A further twist of the 'probe' releases the button, supplying power to the glow plug and starter motor.



The 'Kit'

The model is nicely presented in a large colourful box, inside which you find the large pre-trimmed lexan Saloon bodyshell, a few parts for mounting the body, the starting battery module, and the all but complete rolling chassis. An instruction manual in four European languages, including many useful photos and exploded diagrams, is also included.

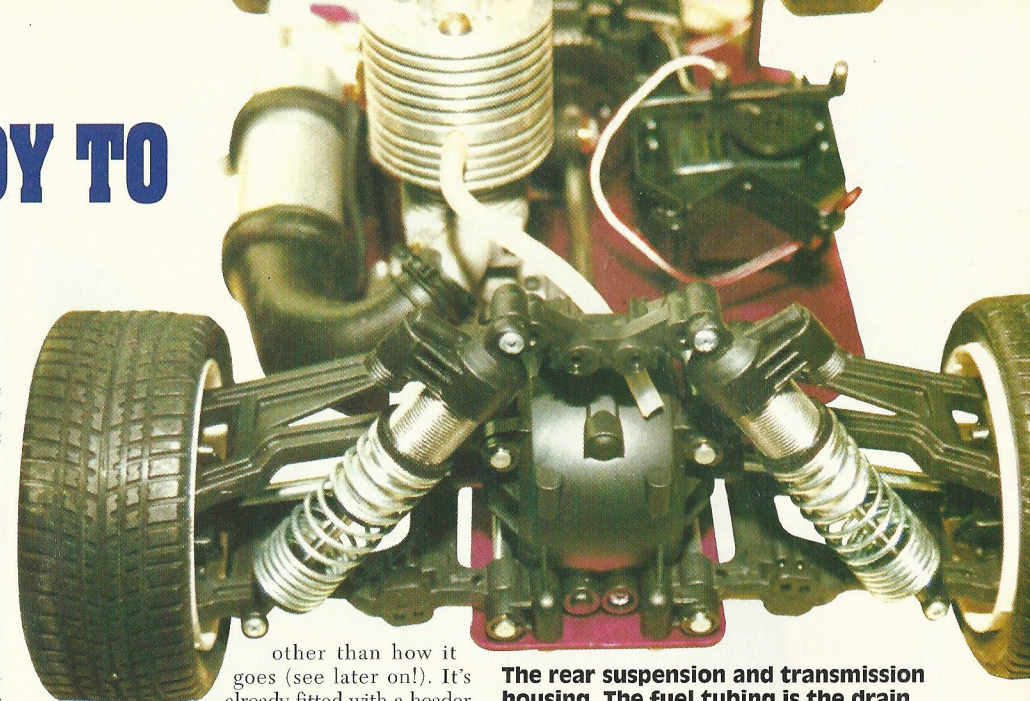
The 2mm thick pressed aluminium chassis is anodised purple, with the transmission housings, and suspension components etc being glass reinforced plastic mouldings.

The suspension uses 'A' frame wishbones top and bottom, giving fixed, unadjustable camber and castor angles. The rear transmission moulding houses a geared type differential without any form of limited slip, and the drive shafts are of the 'dog bone' type. The front moulding is actually the same as that used for the rear, and is supplied (and used!) empty, although an upgrade kit is available to convert the car to four wheel drive. This upgrade includes the differential, bearings and driveshafts, effectively making the front transmission identical to that at the rear.

The shocks are pre-assembled and consist of an oil filled, threaded case with fluted pistons. The springs fit over the shocks, then the top spring retainer threads onto the shock body to allow the spring's pre-load to be adjusted. As supplied from the factory, the rear spring adjusters are set to leave the springs fairly light, while the front had a degree of tension. I left them as they were during the initial runs to see how well set up the car was, 'out of the box.'

A well tensioned servo saver is ready fitted to the chassis plate, and the adjustable track rods were also fitted with heavy-duty ball links.

The ready fitted .21 glow engine is an 'M.A.C. 3.5', which is a new name to me, so unfortunately I can't say much about it.



other than how it goes (see later on!). It's already fitted with a header pipe and muffler, connected with a neoprene(?) sleeve.

The slide carb is fitted with a typical car type large sponge air filter.

Drive is through a flywheel to a twin shoe centrifugal clutch and the 12 tooth spur gear on the clutch drum drives a 55 tooth main gear giving a single reduction of 4.583.

The back axle drive shaft extends forward through the main gear to a disc brake. The four wheel drive kit includes a shaft which connects to the end of this shaft to take the drive to the front axle. Moving back to the clutch and looking forward reveals the unique on-board starter, an electric motor that drives a one way sprag bearing in the flywheel. Also ready installed is the fuel tank that has a quick fill top. An exhaust pressure nipple isn't supplied, but it wouldn't be difficult to fit one.

The last bits to mention in the box are the body mounting brackets and the nice, pre-trimmed bodyshell itself.

The rear suspension and transmission housing. The fuel tubing is the drain from the engine's decompression valve. The shock caps offer the facility to mount a remote oil reservoir, presumably for an Off Road version of the car.

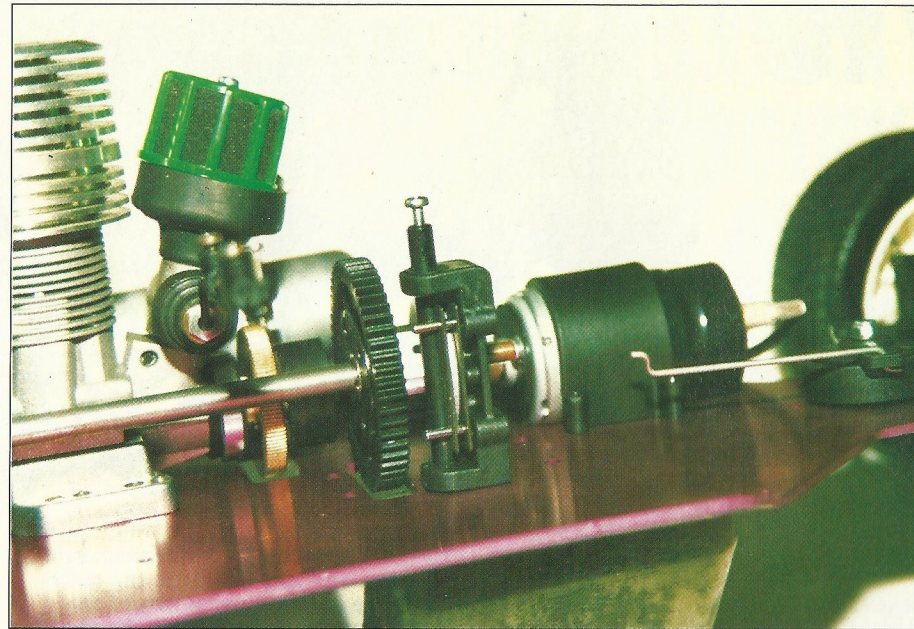
Onboard Starting

The on-board starter unit is very cleverly designed, with the batteries for both the starter motor and the glow plug self contained in a hand held holder that looks like a miniature hobby drill. This holder includes a probe that completes the electrical circuit, through contacts in the cylinder head, to both the electric starter motor and glow plug.

Also incorporated in the engine's cylinder head is a de-compression button and a bleed nipple through which the cylinder pressure is relieved. The idea is that as the probe is pushed into the cylinder head, it pushes down the de-compression button. At the same time, power is fed to the electric motor so the engine spins over, priming the carburettor. Twisting the hand-held probe releases the de-compression button.



THE DYNAMIC HOBBY MODELS 1/7 MERCEDES 190 EVO 11



The single disc brake is mounted on the drive shaft.

and supplies power to the glow plug whilst the power to the electric starter motor is maintained, and "Hey Presto" the engine starts! Once it's running, the probe is removed after a few seconds and, as it has a convenient belt clip, you can easily keep it handy.

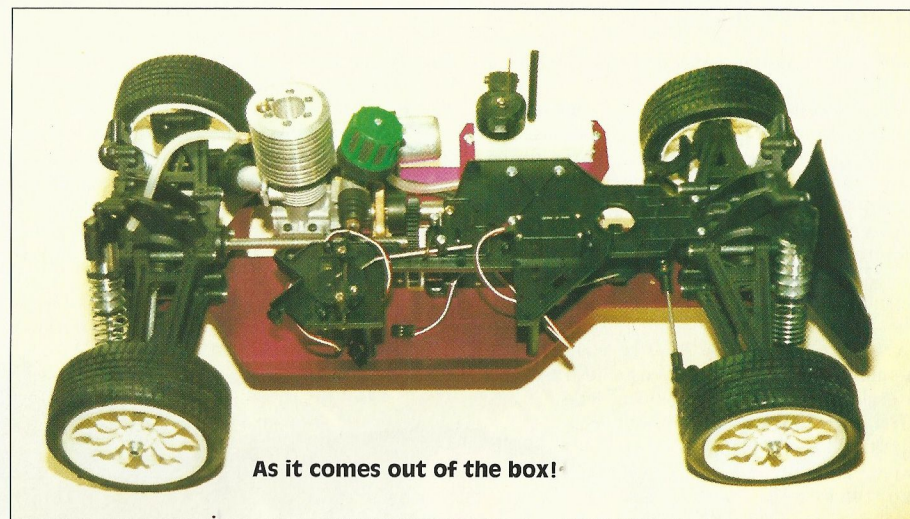
A charging socket is mounted in the top of the starter probe, connected to the eight 1200mah nicads housed within. These batteries are all charged at the same time, so all that is needed is a battery charger capable of charging the eight cells.

Construction - What Construction?!

Not much to say here! The tyres do have to be glued onto the rims, and the instructions recommend that foam rings are inserted into the rear tyres to help keep them fully in contact with the road. As you can see in the photos, the tyres are of a very low profile, and softer rubber is used for the rear tyres for increased grip.

The next job is to install the radio gear (remember the servos are already mounted!) and there is more than ample space. I followed the manual's recommendation of placing the

battery pack and receiver into a plastic bag to stop them falling foul of spilt fuel or water (a bag of



As it comes out of the box!

silica gel is a good idea when doing this, as it prevents condensation). The push

rod set up has to be checked, and thankfully I found them to be ok. The bodyshell is supplied ready cut-out, and only needed final trimming and painting (many thanks to Paul Leach here) and then the good selection of decals can be used to finish the car off. The glue on the decals is pretty good, because even the thin stripes have remained firmly stuck to the shell!

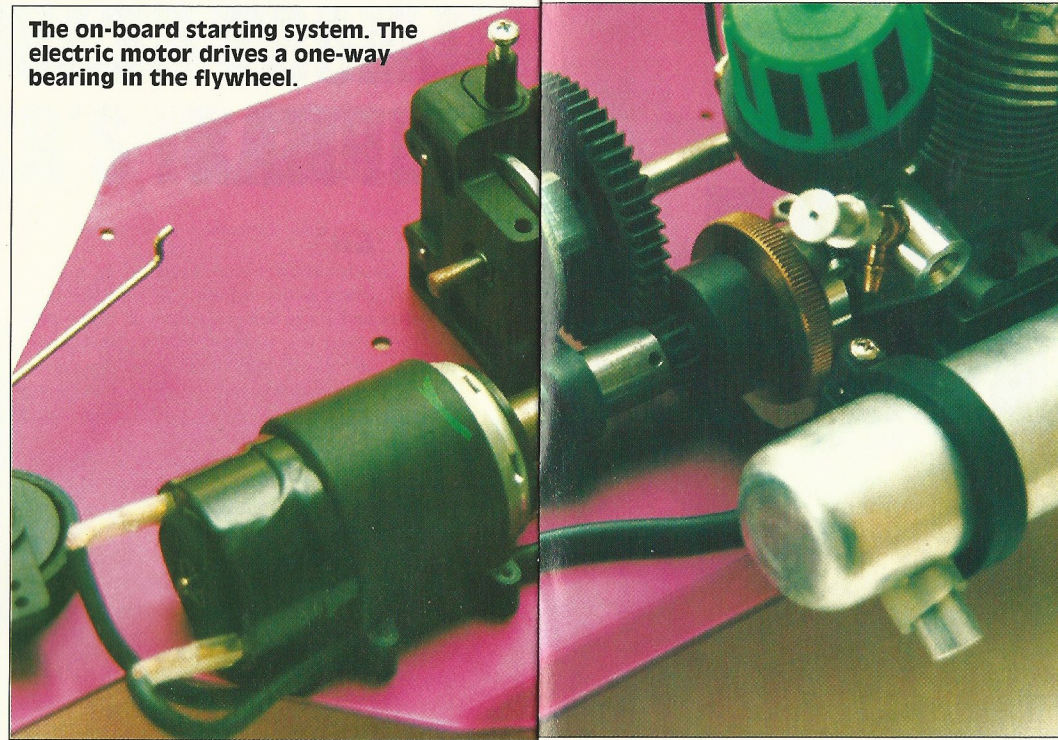
The front body mounting uses a 't' frame with turn buckles and is adjustable in height. The rear mounting uses a plastic plate bolted under the chassis that bends up at the back of the car. Fixing the body to this is pretty agricultural, spacers and long screws through the back of the body!

On The track

Guidance is given in the manual about carburettor settings, but strangely, no mention is made of the fuel required. I plumped for my standard mix of 18% oil.

The front transmission housing is the same as the rear unit, and readily accepts the optional four wheel drive conversion kit.

The on-board starting system. The electric motor drives a one-way bearing in the flywheel.



15% nitro and 68% methanol. The starter battery pack needs a good charge, remember it's eight cells, so if you are using a 12 volt charger you'll need a good 12 volt battery!

For the first start, I used a standard hand-held starter to turn the

flywheel from underneath and a separate 2 volt supply for the glow plug. The motor took quite a bit of priming to get it to fire, but once started it ran well.

With the engine warmed up, I tried the on-board starter pack and found that it turned the engine really well, but I still had trouble priming the carb. Eventually the penny dropped... The lack of exhaust pressure was causing the problem! I lifted the front of the car so that the tank was much higher than the carb, which did the trick, making starting now quite easy.

Starting from cold with the on-board starter initially proved virtually impossible, but this was with a new and very tight engine. As the engine frees off I expect the starter to work better from cold, but be prepared to use a separate starter from cold at first. Either way, the battery pack needs to be fully charged, and it will last longer if, for the first start, you take the glow plug out and loosen up the engine first.

The Mercedes is certainly fast! The engine picked up well, making the acceleration more than fast enough for a beginner, and all I needed to do was to richen the slow running needle a little to set it up correctly. The clutch's engagement was smooth and positive as well.



On the surface I initially ran the car on, it wasn't difficult to have the car facing the wrong way! The engine puts out plenty of power, and on the somewhat dusty surface it was easy to lose the back end. As I got used to the car though, and stopped being so ham fisted, I found it to be really good fun.

At speed I thought the suspension was a little hard, as it didn't soak up larger lumps and bumps as well as it might. Adjusting the springs and trying some different weight shocker oil will help improve the handling and tune it to the road conditions, while it has also been suggested that some foam tyres might offer better grip.

The screws that adjust the ride height are quite pointed, and these do tend to dig into the chassis plate, making the suspension movement notchy as it begins its upward travel, the screws tending to drag across the chassis plate. I've now rounded off the ends of the screws, which has smoothed out the suspension movement nicely.

Summing up

I would have liked to have seen better rear body mounts, and some of the mild steel hex bolts need to be substituted for hardened cap head versions, as one of the engine mounting bolt heads underneath sheared off!

The car isn't supposed to be a competitive IC circuit car, but it fulfils its design brief as a car to get a beginner started quickly, very success-fully. Once the engine is run in, the on-board starter works very well, but when new (and cold) a standard starter was required (on our review car anyway!)

Ball raced axles and large diameter pivot pins should cope with the wear and tear imposed by a beginner!

All in all, the Dynamic Hobby Models Mercedes 190E represents good value for money. For the person who wants to get into IC cars quickly and easily, then this car does the trick well.

Upgrading it to four wheel drive would help the handling, and there is also a tie bar upgrade that strengthens the chassis with a longitudinal tube between the front and rear diff housings. In my opinion (a relative beginner) it does exactly what it sets out to do, and pretty well at that.

As I've said, it's not in the top class competitive field (nor is it meant to be), but how many really need that?

This is a car for someone who wants to have some fun, and hasn't got the time or the inclination for serious racing.

The trouble though is that it certainly whets your appetite!



Left: The tyres are glued to the rims after the foam rubber inserts have been pressed into place.