



The BMT 931 1/10 IC car

1/10 scale ic Saloon racing has begun to find its feet now as a serious racing class, and with the price of good cells for electric classes such as Pro10 rising ever higher, this class of circuit racing could well attract even more devotees due to its (relatively) low costs. Immediately prior to writing this review, I have had two phone calls from frustrated electric circuit racers bemoaning the cost of staying competitive; with packs of really good cells costing up to £60, five packs works out at £300 which is virtually the cost of a 1/10 ic car complete with engine! The 1/10 ic class has, until recent months, virtually been the domain of one manufacturer, Serpent from Holland. They initiated the class and so, not surprisingly, have dominated the races held so far in this country and abroad. The introduction of the BMT and PB cars (also reviewed in this issue) saw the Serpent cars challenged for the first time by their old adversaries from the 1/8 scale class, with the BMT 931 taking TQ at the recent meeting at Aldershot, although a lack of suitable tyres and waterproofing kept the car out of the wet final!

The basis for the 931 is a nicely machined 3mm thick aluminium chassis plate, with very substantial plastic mouldings front and rear upon which the suspension (from the 1/8 car), differential, 2 speed gearbox and disc brake are mounted, with an aluminium radio plate to complete the effect. One aspect of the car always remarked upon by interested people is that it looks very smart indeed, the aluminium chassis being nicely contrasted by the black plastic

The castor angle is easily changed by sliding the top wishbone through the upper mount. The clamping grub screw is situated on top of the pivot mounting point.

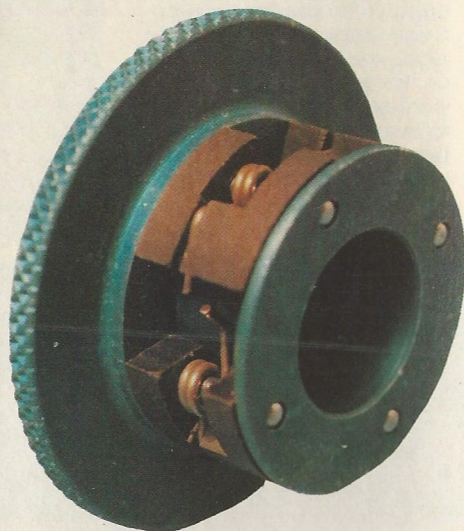


mouldings and the bright green shock absorbers and wheels, we shall see if the old saying "if it looks right, it will probably go right" applies during the track test though!

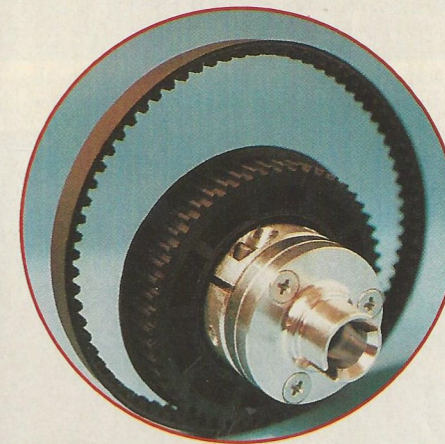
First Impressions.

On receiving the kit for the review, the very first thing to strike everybody at the office was the 'fishy' smell emanating from the box! This is

The 4 shoe clutch, also ready built.



The ready assembled ball differential and 3mm pitch drive belt.



purely down to the tyres though, Ellegi Technics rubber being supplied in the kit, and fresh rubber at that. The smell does die off as the tyres age though, so wives, girlfriends etc., can take heart that the house won't be polluted for evermore by smelling like a fishmarket!

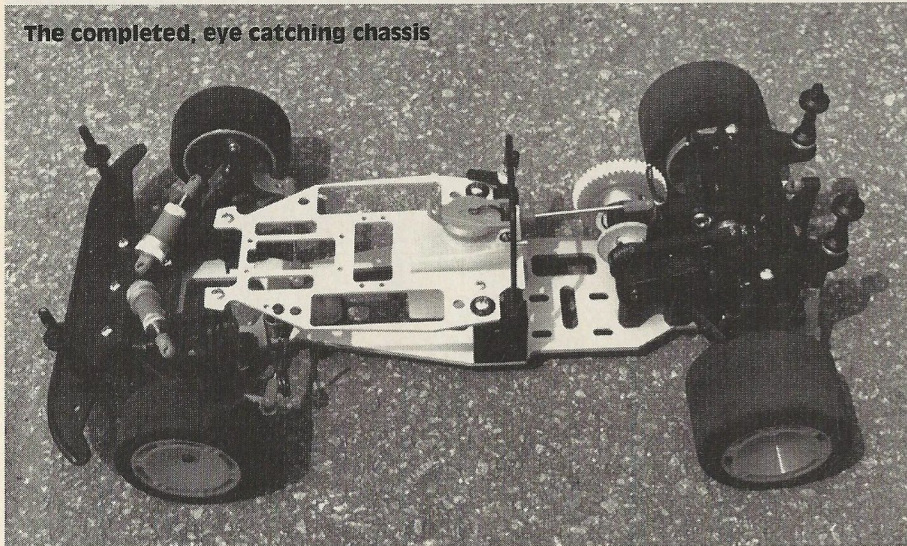
All of the parts were neatly packed in numbered plastic bags to correspond with each stage of the construction, including the beautifully machined aluminium chassis and radio plate, the ready assembled differential and two speed gearbox, and all the various types and sizes of nuts and bolts, self tapping screws etc, needed to construct the car. The instruction booklet was given a quick once over, the initial impression was that the pictures looked nice but the actual content was somewhat lacking when it came down to the facts needed to build the car up. More on this aspect later. Having had a good look at the myriad of parts supplied in the kit, I was very surprised that the kit is on the market at

The Editor reviews the latest offering from BMT, the Italian Manufacturer with a World Championship Winning pedigree.



The 2 speed gearbox as it comes in the kit!

The completed, eye catching chassis



the price asked, considering the quality, because the average Pro10 car, for instance, costs very nearly as much but the box contains probably only half as much in the way of parts! The quality really impressed me, which obviously led me to start the build in confidence.

One thing that I soon realised was that because the suspension geometry is so adjustable, it is quite possible to 'build in' differing camber angles etc. The use of a camber gauge is recommended, not only for the initial building of the car, but for setting it up trackside. The adjustability will no doubt come in very useful later when tailoring the handling to suit a particular track or conditions.

The Rear End.

Construction began with the rear uprights that provide the mounting for the power train. These are very substantially moulded in rigid black plastic, the material appearing to be a composite type that allows no flex whatsoever, this material is also used for the suspension wishbones front and rear. The sequence illustrated in the instructions was followed, with the build up very much aided by the fact that the ball differential is supplied ready assembled! The ball joints for the upper wishbones are inserted through the sideplates from the inside, followed by the aluminium retainers that not only provide the socket, but I should imagine a means of taking up any play that might develop with time. All of the suspension parts, wishbones etc are taken from the 1/8 car, so have been well proven to withstand abuse and should last well for 1/10 use.

The rest of the rear end assembly went together easily, the only thing that gave me any hassle was persuading the two ends of one suspension spring to stay in their locating slots either side of the driveshaft bearing. A quick removal of the wishbone pivot and a little wrangling with a pair of pliers gave a perfect fit.

The two speed gearbox also came ready assembled, so I was denied the pleasure of assembling it! I dare say that routine maintenance will allow me to become familiar with it though. Circlip pliers are a very necessary piece of equipment for the owner of a BMT car, and the gearbox assembly is the first place they will be required, so make sure you have some to hand. The 3mm pitch belt seems to have just the right amount of tension when the layshaft is in place, so it looks unlikely that a tensioner will be needed, not that there is room for one anyway! I assembled the disc brake pillar last, then had a bit

of a job threading it past the belt and round the disc itself. I think that I did this out of the constructional order, and that it should have been assembled to the chassis before the rear end, however, it all went together in the end.

Not shown in the stage illustrated are the balljoints for the rear shock absorbers. These



mount on the forward facing part of the rear plates at the rearmost upper face. It is advisable to fit these at this stage to avoid all the hardware around them if left until later on.

The Front End.

The basis for the front end is the complete set of mouldings from the 1/8 scale Blitz car. The front suspension mounting and radio plate support has to be cut down to suit the 1/10 scale 931 before construction can commence. The rest of the build went as per the rear end, in that everything fitted as it should and not a single problem became evident. The upper wishbone is mounted at quite a steep angle to allow a decrease in the castor angle to take place as the suspension is depressed. This type of design is gaining popularity at the moment with many manufacturers, as it gives very good 'turn in' characteristics, allied with stability on the straights. The front uprights are the most substantial that I have yet seen on a 1/10 car

which isn't really surprising because, yet again, these components are sourced from the 931's big brother! Changing the camber couldn't be easier, the method being to insert an allen key through the upright into the end of the suspension balljoint, which has a socket head. No messing around with tiny spanners here on turnbuckles. Turning the key screws the balljoint in or out of the upright, thereby changing the camber. The castor is adjusted by sliding the upper wishbone to the front or rear of the car through the upper pivot housing, then locking the pivot in place with a grub screw. The grub screw is threaded into plastic rather than metal, so it may well strip the thread in time, or if tightened excessively. This is the only point I didn't like when assembling the front end. I just hope that I don't have to make too many changes to the geometry. I like a lot of steering, so having seen where James Haydon had set his upper wishbone at the Aldershot GP, I followed suit. Only the track test will show if this setting is correct!

To complete the assembly there remained only the fuel tank (follow the instructions in the bag that contains the tank. I initially followed those in the book, and couldn't for the life of me get the pin through the spring and into the other side of the tank's hinge. It was only upon looking closely at the small sheet supplied with the tank that I realised that the upright part on the top of the tank behind the cap had to be removed with a



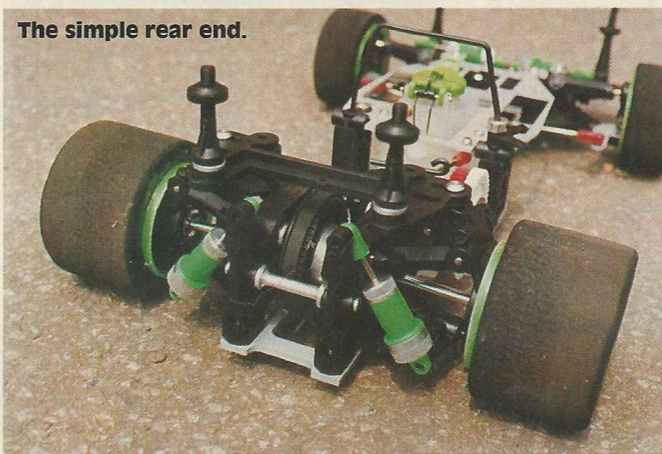
Which bodysell to use was a bit of a problem, as I didn't really want to use yet another BMW or one of its look alikes so prevalent at the moment. The answer came when George Land of Helger Racing suggested Parma's Escort Cosworth during a conversation at the Reedy Race in Basildon. This shell really looks the part on the 931, and the high wing will, I hope, play a major part in keeping the car on the straight and narrow. I am not sure if the shell is legal for use in the British 1/10 series, even though the full size is raced in the Group N Championship, but it makes a 'refreshing change', as the saying goes!

What, No Track Test!

It is at this point in most reviews, where the car is taken out and given a thorough 'testing' to see how it performs. Due to the non-availability of the Mondial .15 motor and pipe (also to be available from Hayley Green Models), as the shipment due hadn't arrived in time for a motor to be posted to RRC, installed, run in and track tested, the track test (hopefully at a proper race

The disc brake and sliding body mount that acts upon the rear suspension are clearly seen here.

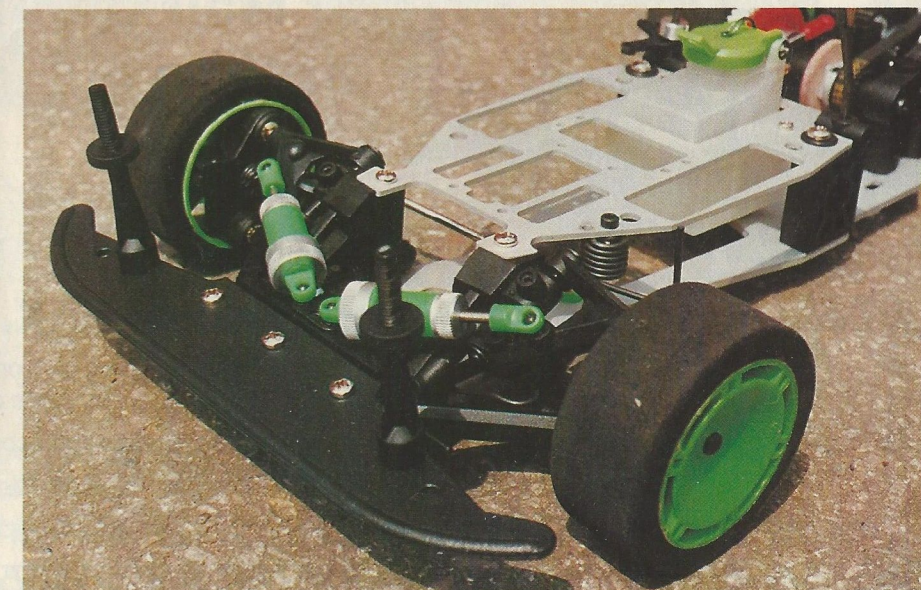
The simple rear end.



A front upright, showing the 'live' axle. The camber angle is adjusted by an allen key through the aluminium sockets.

to be put, being a circuit racer rather than an off road car, the shockers won't have that much heat to dissipate so they should suffice. The results gained with the car already would tend to bear this out.

The 'low profile' front end.



meeting) will feature in next month's RRC as will that of the PB Apollo. Don't miss October's Radio Race Car! The BMT 931 1/10 2wd ic circuit racing car is imported and distributed by: Hayley Green Models, Hayley Green, Warfield, Bracknell, Berkshire. RG12 6BS. Tel:-(0344) 890091.