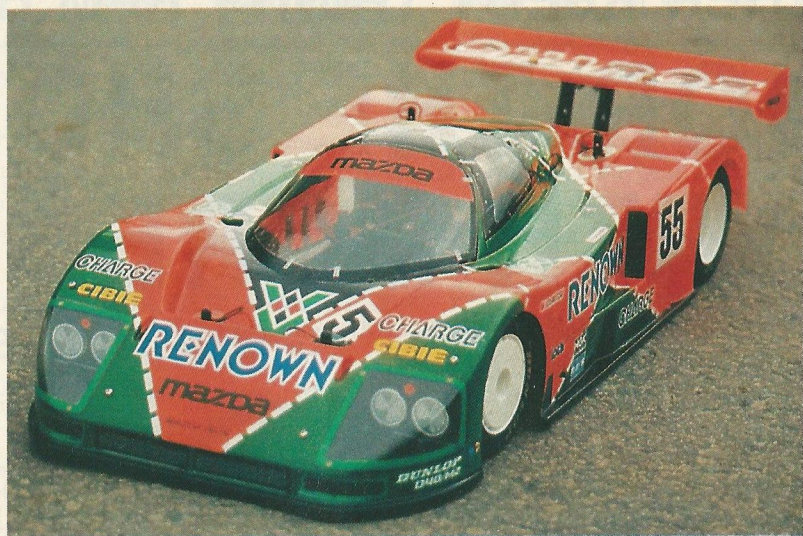


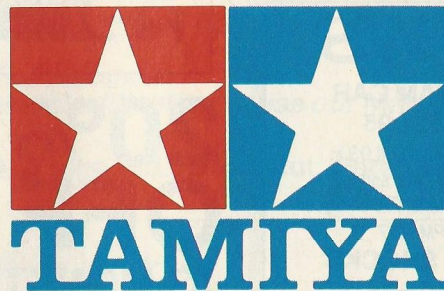
The Mazda 787B is the latest offering from Tamiya in their ever increasing range of 1/10 scale electric powered on road cars. The model is of the car that won the 1991 24 hour race at Le Mans — a remarkable achievement indeed, especially when you consider the might of the competition in the form of Jaguar and Mercedes.

In Japan, Pro Ten cars are immensely popular, which is obvious by the huge number of cars hitting our shores from the likes of Tamiya. The Mazda 787B is one of Tamiya's latest offerings, and is



**Dave Gale reviews the model of the car that won the 1991 Le Mans 24 hour race.**

based on the group C Sauber Mercedes chassis introduced some time ago. This is designed to offer high performance at a reasonable cost. Unlike most other Pro Ten cars, this one looks the 'Bizz', and the bodyshell supplied must be the best formed I have ever seen.



# Mazda 787B

## Construction

No problems here, as long as you follow the step by step instructions carefully. In common with all Tamiya cars the instructions are excellent, and even the proverbial one legged marsupial ninja hippo would encounter no problems during assembly.

Starting with the front end, we have a traditional sprung king pin arrangement, in common with cars such as the Associated and TRC. One point here is that the springs are probably a little on the hard side, but could always be replaced with softer ones if required.

The chassis is a moulded plastic 'bathtub' affair which offers the radio equipment a degree of protection from the elements, and basically makes the car look rather 'pretty'. The rear end is



made from a flexible GRP T piece pivoting on rubber grommets. By tightening the screws compressing these grommets, the amount of rear grip can be fashioned to suit the circuit being raced on. This is quite a good system, but in practice can be a little bit tricky to set up consistently.

To keep the rear end of the car under control there is a massive oil filled damper fitted between the bathtub and the rear pod, which provides a smooth forward/aft damping action over large bumps. This is a plastic damper with a displacement compensating rubber diaphragm to ensure consistent operation over the full travel. The motor pod is made from a plastic injection moulding, and would probably be the first item on my list of things to replace, as having no heatsinking is not very kind on motors.

The rear wheels are mounted on a really well designed ball diff, using hexagon splined drive rings to ensure that there cannot be any bias to either of the rear wheels. Once assembled the

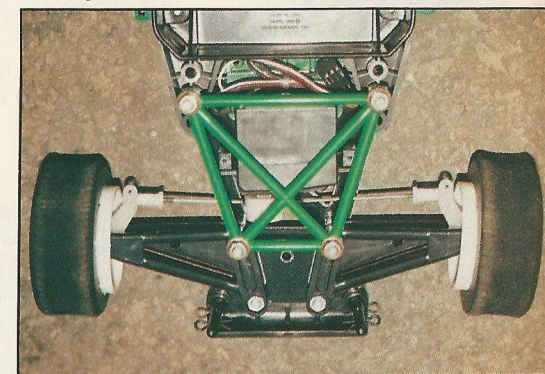
action is very smooth. A Mabuchi black motor is supplied with the kit, and judging by the gear ratio supplied would probably be good for lasting about 10 minutes. To change the gear ratio you must buy additional pinions, which are available with 12 to 16 teeth (pinion supplied with kit = 14).

With the kit tyres, and 70T spur gear, this gives an effective range of gear ratios in mm/rev as shown in the table.

Pinion Size	Gear ratio (mm/rev) (for 67mm tyre diam)
12	36.08
13	39.09
14	42.10
15	45.11
16	48.11



① Front end detail showing 'X'-shaped chassis brace.



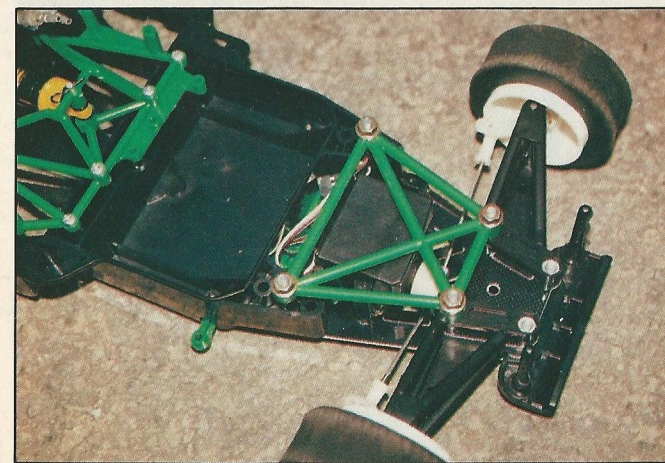
② Front and rear chassis detail.

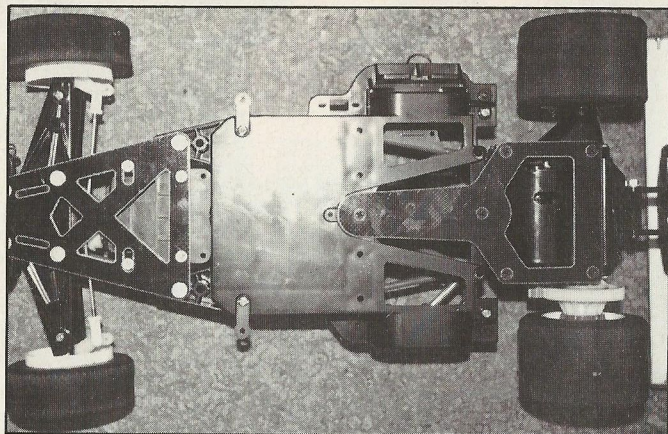
As a rough guide, if you were going to use a hotter motor than the one supplied with the kit, then simply subtract two from the number of turns, and run that pinion. For example if you wanted to run a fifteen double, then you should use the 13 tooth pinion. This may be a little low for some people, but it is a good starting point and you can

always gear up later.

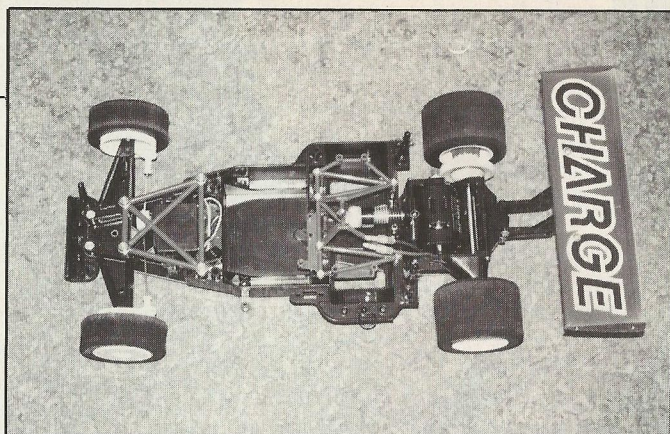
Only the rear axle is ballraced, but the front wheels and diff can benefit from a 'hop up' ballrace kit, to replace the Olite and nylon bushes. Fitting these ballraces is always a good idea because it will reduce the amount of wear on the bearing surfaces, which will eventually need replacing.

The tyres seem to be very good, and





Underview showing plastic chassis and FRP 'T'-piece.



Rolling chassis.

if I had to hazard a guess, are probably related to the popular Yokomo tyre. These have always proved to give reasonable levels of grip, and good wear characteristics.

With radio gear installed, and the kit motor, we decided to give the car a test run on the path outside. With only Tiddles 1 and Tiddles 2 (my neighbours' cats) as spectators I gently pushed the throttle forward, and immediately regretted this as the car shot off backwards into a patch of nettles (my garden). Returning a few minutes later with the problem rectified, Tiddles 1 and Tiddles 2 had been joined by Tiddles 3 who seemed a little bit more interested than the others (hungry!). This time there were no such problems, and full power resulted in a massive power slide from the rear tyres as the car shot off in the direction of my neighbours' rockery and Tiddles 2. After retrieving the car we were down to two spectators, with Tiddles 2 suffering a nervous breakdown several miles away. The third run provided us with a little more success with full speed being reached several times in our fifty yard drag strip. By now Tiddles 1 had now decided that dinner was not only inedible but stonkingly fast, and had presumably gone off to find Tiddles 2.

With the kit motor excessively fast up and down the path, we decided to let the car loose on the open road, and it was here that we decided that more 'welly' was required, and so in went an LRP blue SE motor. The moment throttle was applied, the acceleration was stunning and the car took off like a scalded cat (probably equalling Tiddles 2 in terms of performance). With this sort of power the car was surprisingly well behaved, tending to understeer unless really thrown into the corner, in which case the rear would go light and start to spin. To catch the spin, a small lift on the throttle would soon regain control making it great fun to drive. The handling felt really safe, and considering that the tyres were a relative unknown quantity, they generated plenty of grip.

## Conclusions

In classic style, Tamiya have produced a car which is truly representative of the full size car, and every bit as stunning in terms of looks. With the correct motor and ratio, performance is every bit as good as most Pro Ten cars, and with some work the chassis could prove very competitive in the right hands.

Indeed the Team Tamiya cars at the Pro Ten Euro-champs in Oberhausen were a revelation for many dyed in the wool competition enthusiasts. Perhaps the major problem with the car as standard is that it needs to shed some weight. This would be a fairly easy matter, as all the screws as standard are steel, and could easily be replaced with lighter alloy ones. In particular the four bolts used to attach the front end of the car to the tub chassis look like the ones on my garden gate. Another heavy item is the solid steel axle, but the way it is designed means that it could quite easily be replaced by a graphite one if Tamiya decide to do so. Given the huge popularity of Pro Ten cars in Japan I think that it is likely that we will soon see a more competition based offering, and as a result find that this sort of spare will become available.

Overall full marks to Tamiya for producing a car which should appeal to a much wider audience than normal for a Pro Ten car. If you want a car which is cheap, looks good, and stonkingly fast then I can think of no better car.

