

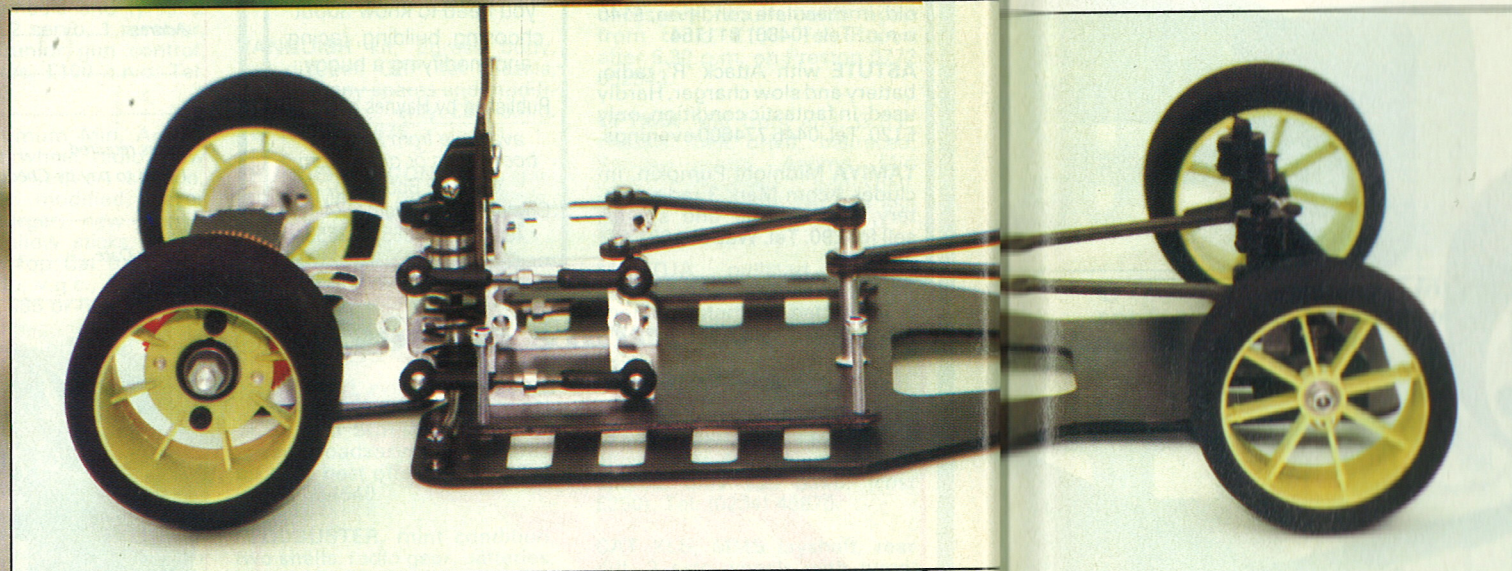
SIZZLER

**Mike Haswell reviews
the Sizzler '90**

The PB Sizzler '90 is an updated version of the Sizzler that was released at the beginning of last year. The main differences are: a stronger chassis with less cut-outs to prevent breakage, Nyloc nuts in place of E clips to hold the front wheels on (which will please a few people!), the shock absorber is now mounted vertically, the front beam clamp is now a one-piece item which doesn't require any spacers under it, and the panhard rod now goes underneath the bottom radius arm.

The Sizzler's rear suspension is a five-link 'De Dion' type with a Panhard rod, all of which is controlled by a constant volume shock absorber with an adjustable coil-over spring which is the same type as that used on their highly successful eighth scale circuit car. The rear axle is made of carbonfibre and incorporates the usual ball-type differential and is supplied with a 48 DP tufnol spur gear. The rear ride height can be adjusted by changing plastic mouldings in the motor pod that hold the bearings for the rear axle.

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The chassis has been cut out to accept saddle pack-type batteries but can also take stick packs. The batteries are held in by retaining straps so, unlike other kits, you won't have to mess about trying to tape them in.

The front suspension beam is made from carbonfibre and has independent coil spring suspension and fully adjustable castor. The car

Construction

The introduction thanks you for buying a PB Sizzler and goes on to say what tools are required to build the car. PB recommends that you get the messy job of gluing tyres done first of all. The first thing you should do is roughen up the outside of the wheels with some coarse sandpaper. This enables the glue to grip better. Next, you coat the rims with a contact adhesive (i.e. Evostik or Thixofix) as well as the inside of the tyres and slip them onto the rims. To make this easier I use a 50/50 mix of washing-up liquid and water (you only need a small amount) which is lightly spread over the rim and on the inside of the tyre on top of the glue. Once all the tyres have been glued to the rims they should be left for 24 hours to allow the glue to cure properly before you true the tyres.

The motor pod is built up next using some nicely machined aluminium side plates which also carry the plastic mouldings for the rear axle bearings. The two sets of plastic mouldings give you three different ride heights to allow for tyre wear. When attaching the rear cross plate and the rear floating plate to the side plates it is recommended that you should use a thread locking compound to

Notice chassis brace. This makes the car very strong.

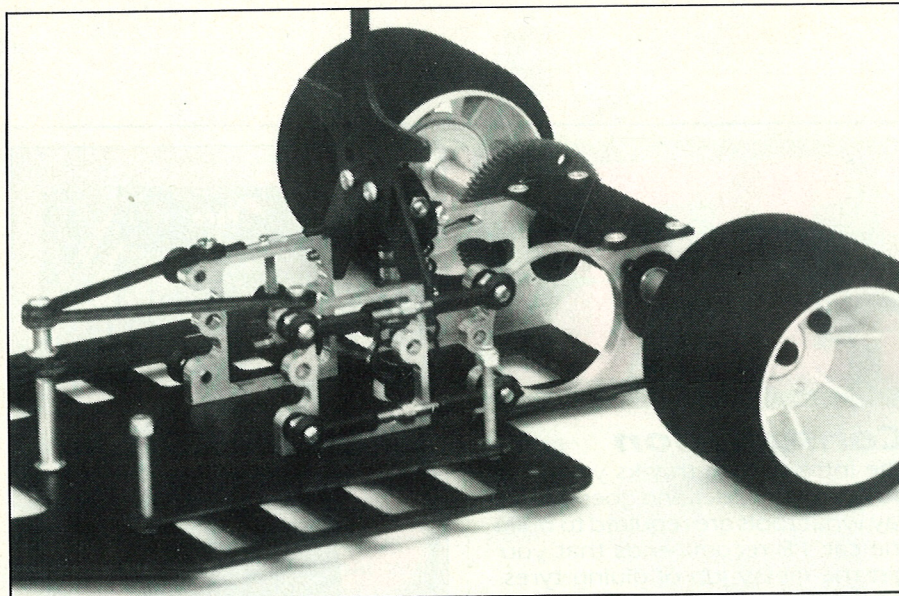
comes fully ballraced and is supplied with PB's lightweight wheels and PB's own tenth scale rubber tyres.



prevent the screws from coming loose. To make sure that the motor pod floats freely you can polish all the ball-ended screws and ensure that they are free from any burrs.

The main chassis plate is next and before you go any further you should chamfer the slots where the nicads sit, using a coarse file, which will allow the cells to sit as low as possible and also helps prevent them from being knocked out. The





The combined hub carrier/diff end flange is now placed over the gear and one of the small thrust washers on top of that. The plastic ball cage is now placed onto the axle and the ball bearings put into the cage. Then, place the other small thrust washer over the ball cage. The two disc springs are fitted next, the first one has the inside diameter against the thrust washer with the outside diameter doming away from the thrust washer, the second disc spring is fitted the other way round so that both the outside diameters are touching. The M5 nylon nut is then screwed onto the end to hold everything in place. The

“Di Dion” rear suspension details.

two fixed aluminium side plates are now attached to the chassis and the upper shock body mount is attached to the side plates.

Next to be assembled, and probably one of the most important parts, are the four radius arms. These comprise of four threaded rods with a hexagon centre section to which plastic balljoints are attached. The rods have a left- and right-hand threaded end which makes for easy adjustment once on the car. You must adjust the lengths of the radius arms so that each arm on its ball-ended screw is 54mm between centres. The balljoints on the completed rods should move freely when attached to the ball-ended screws on the side plates and the motor pod.

heat treatment scale or machining marks. Instead of fitting the balljoint at the end of the shock absorber shaft fit the 5BA nut and make sure that it is screwed all the way up the threaded portion of the shaft. A thread locking compound must be used on the nut. The shock is now fitted to the upper shock mounting. The shock shaft and spring must now be compressed so that the shaft can be positioned and lowered onto the shocker seat that is above the ball in the motor pod to which the panhard rod is attached.

When assembling the differential you must glue the large thrust washers to the flanges using a cyanoacrylate/ Super Glue. Now place the Tufnol gear on the diff so that it is on top of the thrust washer and place a ballbearing in each of the eight holes on the gear, ensuring that everything is free from dirt.

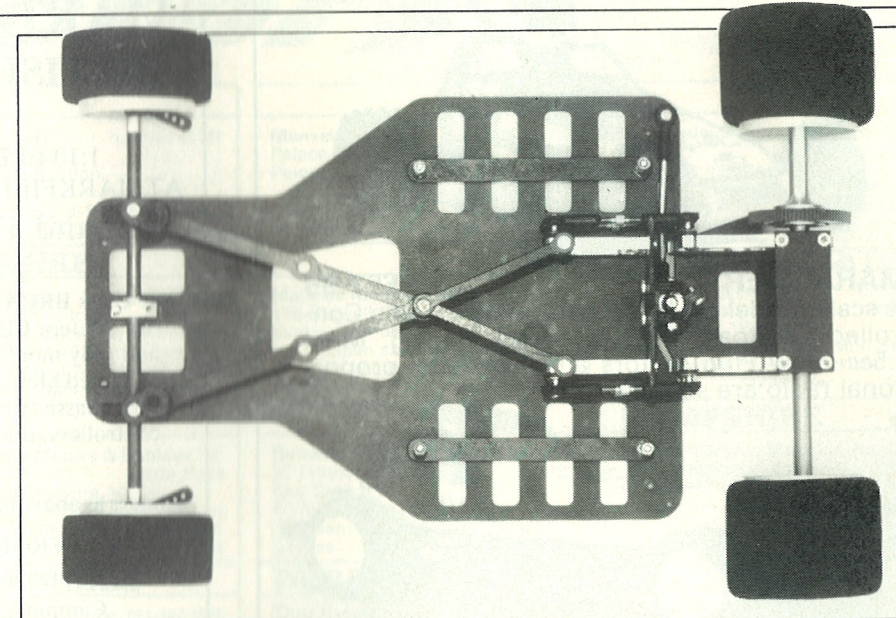
SIZZLER

The panhard rod is supplied straight and needs to be bent as per the diagram in the instruction manual update before being fitted. Once bent, fit the plastic balljoints on each end and attach to the chassis and motor pod going under the radius arms. The length of the panhard rod needs to be adjusted so that the motor plates and the side plates on the chassis are directly in line with each other. The set up of the panhard rod and radius arms must be accurate, otherwise the car will not go in a straight line. The motor pod should now be able to move freely up and down but should not have any sideways movement.

The shock absorber is next to be assembled which shouldn't pose too much difficulty provided that the instructions are followed. I would recommend that you polish the shaft in order to remove any

diff can now be fitted and the spacer tube and left-hand hub carrier fitted to the axle. Remember to make sure that there is a small amount of end float on the axle when the hub carrier is tightened up. You can now check the diff setting by holding the left and right hub carriers in each hand and push the Tufnol gear with your thumb. You should just be able to push the gear round. If you can't the diff is too tight and this will cause you to spin-out under power, and if it goes round easily it is too loose and you will get diff slip.

We now move on to the front end. First of all, you fit the front axle



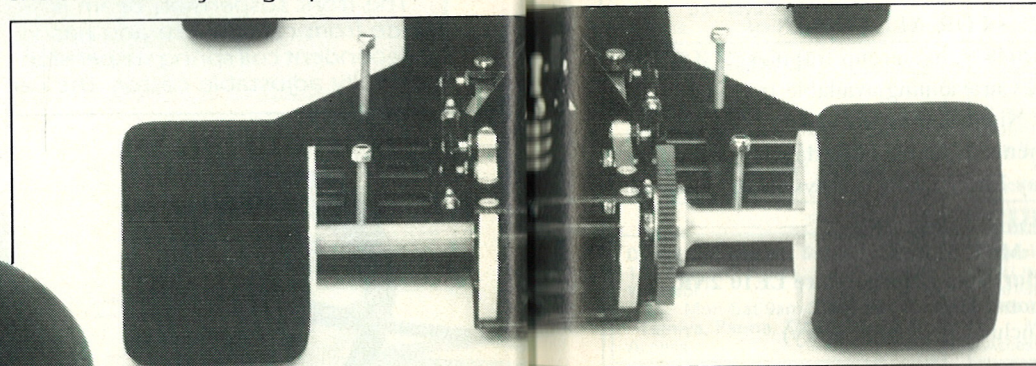
Simple, neat construction makes the Sizzler easy to build.

clamp over the central aluminium collar on the front beam. You may need to prise the clamp open slightly with a screwdriver in order to get it over the end caps and central collar. The kingpins are now inserted through the hole in the end caps, ensuring that the circlip groove is at the top, and tighten the allen screw to hold it in place. Again, it is worthwhile to give the kingpins a polish to ensure that the steering arms move freely when fitted. The completed front beam is then attached to the chassis. PB suggest that you start with 0° castor, that is with the kingpins at 90° to the chassis, i.e. vertical. Although it is a good idea to run with a couple of degrees of castor (the kingpins would be leaning backwards) as this makes the car less sensitive on the steering going down the straight. The chassis braces are next to be fitted. These go from the top of the front bulkheads to the brace post in the middle of the chassis and from the side plates to the brace post. The front two braces also carry the front two body posts and the aerial tube holder which has to be glued into place.

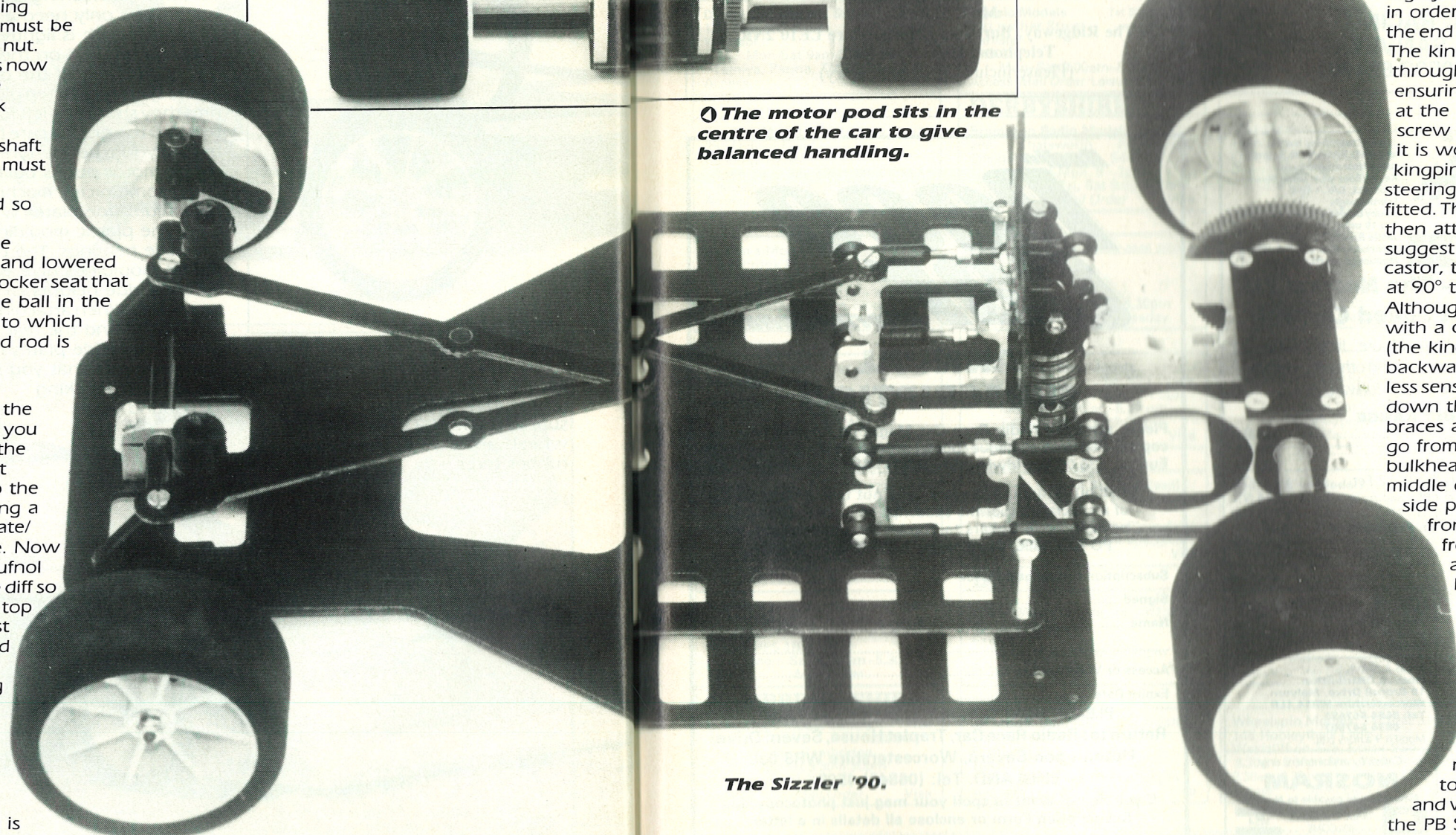
All that has to be done now is to fit the battery retaining straps and the wheels and tyres.

There is no doubt that this car is an improvement on the original Sizzler.

The few minor changes make a significant difference to its track performance and will definitely give the PB Sizzler a new lease of life.



The motor pod sits in the centre of the car to give balanced handling.



The Sizzler '90.