

problem was found to have a simple and effective cure and is worth describing as other 'Sizzlers' have also been seen to exhibit the same tendency, which is not a design fault of the car, but rather incorrect geometry of the steering linkages as installed by the builder.

To prevent the steering moving over centre, the steering servo needs to be moved as far forward as possible, with the linkages connected to the servo saver by ball and socket joints to further move the linkages forward at the servo positions. The angle on the track rods will now prevent this 'locking over' from occurring. An alternative arrangement which also works perfectly and is much easier to carry out if you have already built the car and installed the linkages. The plastic steering block has three holes on the steering arm for positioning the track rod ends. Screw through the innermost hold a half inch long self-tapping screw of the correct diameter for the hole so that the head of the screw is uppermost when the chassis is facing the right way up on the bench. Then cut a similar length of silicone fuel tube to slip over the protruding screw thread. Hey Presto! - a perfect steering stop that touches the axle beam on full lock, and prevents the steering block from moving 'over centre'.

With the steering now sorted, some real testing was conducted and the handling of the car could be exploited to the full. The strength of the car was soon initially tested when the 'Pork Banger', (PB Sizzler - get it?) as it has been affectionately nicknamed, was jumped on by George Hanson who was enthusiastically leaping over the track to reach a stranded car on the circuit. George landed from several feet in the air straight onto the front of the 'Sizzler' and promptly turned our favourite 'Banger' into what looked like a flattened 'Burger'! However, on inspection the only damage was two very out-of-round front wheels, and as they were the only ones available at the time, they were massaged back into a usable state!

The car was otherwise unmarked. The PB 'Sizzler' had acquitted itself well, and was now to be readied for the Model Engineer Exhibition and the *Aeronautical Models* 1/10 Pro Car Challenge race.

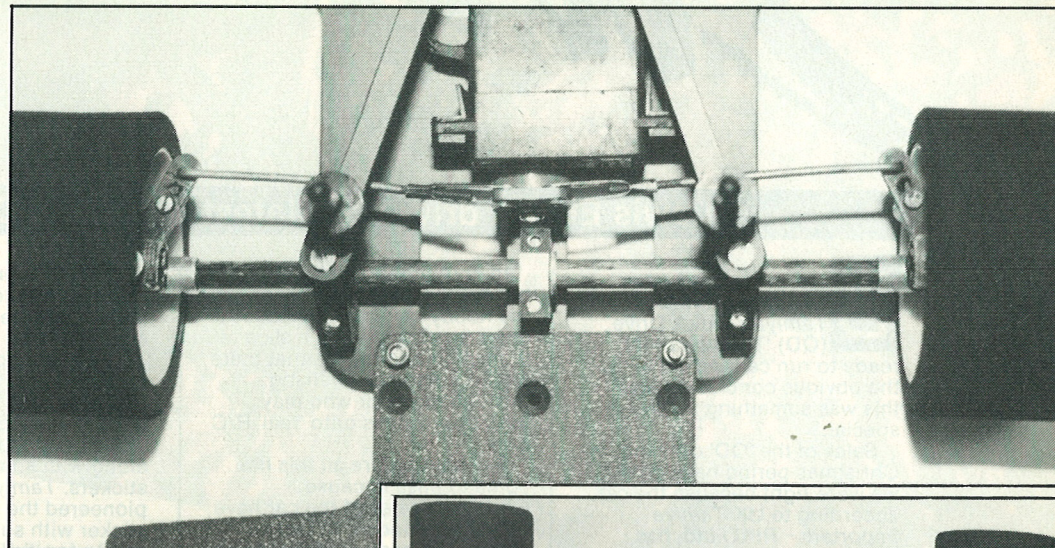
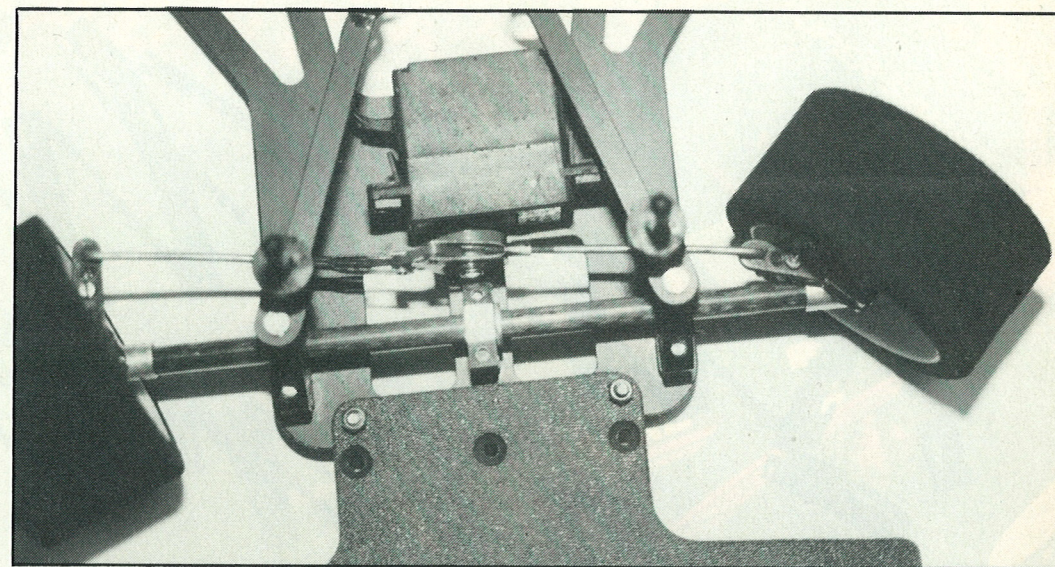
Preparation for the Model Engineer meeting included preparing a set of 07 rubber on front and rear hubs which were known to provide good levels of grip on carpet, and were more suitable for this form of racing than the standard kit rubber which is primarily for outdoor tarmac racing.

The track for the meeting was laid out in the much more specious location of Alexandra Palace, the new home for the Model Engineer Exhibition, and to my mind a tremendous

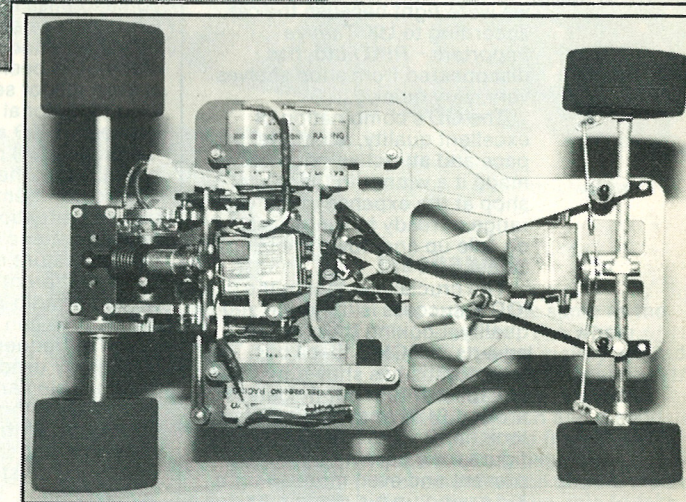
venue for it to be held. For myself and Pete Winton, it brought back many memories, because it was here in 1976, that 1/12th electric car racing really got underway in England, and the Ally Pally club run by Nick and Jane Adams, now of Demon Products fame, was the place that Pete and I really began our racing career. In my case running the then latest *Mardave* 1/12th car and competing with *Electricars* and the American *Jerobeas* using silicon-stippled tyres on the concrete floor. The same hall was also used for beer festivals, and where the beer had been spilt, the traction was tremendous - but anywhere else it was awful. It certainly made for interesting racing! However, enough of the reminiscing! Back to 1989.

The 'Sizzler' proved superb in practice on the carpet surface, the 07 tyres proving a perfect match for the chassis. Geared at 15/82, the 21 double *Reedy* Silver Dot motor and *Phil Greeno* 'SCE' cells provided plenty of punch and good duration, and the only modification done during practice was to fit a front bumper to the chassis to prevent the bodyshell from fluttering at the front and catching the carpet. With the heats underway, the Sizzler was obviously on very competitive terms performance wise, and at the end of the first round, was third fastest qualifier. A promising start indeed. By the end of four rounds, the 'Sizzler' was well dialled in and we had managed to remain among the top eight qualifiers and a place in the 'A' final was guaranteed. The other finalists may have had more power and speed, but the 'Sizzler' could handle with the best of them. With only the one motor to play with (it's much simpler and cheaper that way!) all that remained to do was brush the dust off the car, charge up the *Phil Greeno* 'SCE' cells (and commit the cardinal sin of using them for the *third* time in a day). Tractite the tyres (only the inner half at the front) and wait for the 'A' final.

At last we were away, and Phil Davies and Glyn Peglar with enormous horsepower and finely-honed skills at driving these beasts soon pulled away into a commanding position, having their own real battle for top honours. The 'Sizzler' meanwhile was down on ultimate speed (remember only one motor to choose from - excuses, I know) but handled beautifully until a collision caused the bodyshell to get hooked up over the *Ni-cad* pack on one side, and generated uneven handling to say the least. The final positions had Phil Davies winning from Glyn Peglar, with yours truly bringing up the field in eighth position. However this is not a reflection on the car's ultimate capabilities, but more



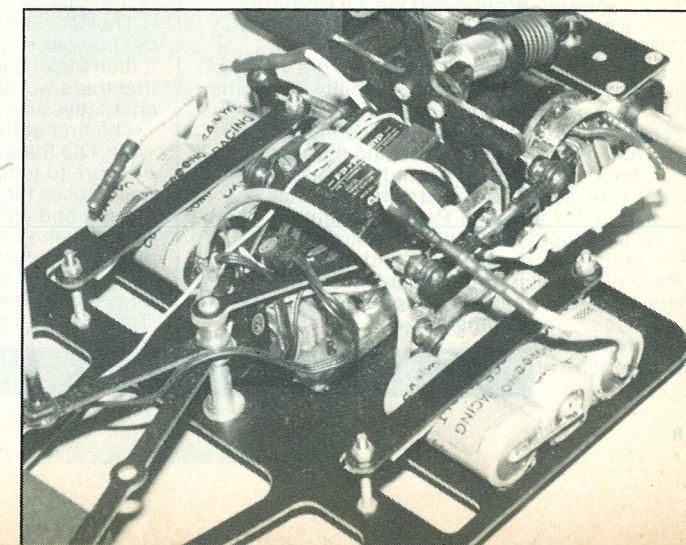
Top and above: These pictures show the servo mounting position which stops the 'over-ride'. Below: views of the Sizzler's radio installation and battery fitting.



of our lack of experience with the car, limited motor resources and insufficient battery packs to do the 'Sizzler' real justice. But we did make the 'A' Final and the car never missed a beat or put a foot wrong - which is more than can be said of the driver!

Conclusion

The PB 'Sizzler' is a real thoroughbred from the professionals at Havant. Beautifully engineered and well made it definitely is, and good value for the quality and specification as supplied in the kit. Our testing has convinced us that the 'Sizzler' can compete with any of the opposition, and with the right equipment is a real winner. For the club driver it represents state of the art design and technology with easy availability of spares and accessories at reasonable prices, its handling is positive and sharp enough to provide a winning machine, and satisfaction for the most discerning driver.



SIZZLER

Update

John Chamberlain goes racing with the Model Cars Sizzler

In last month's issue, PB's new 'Sizzler' 1/10th circuit racer was put through its paces on the workbench and came out with flying colours. The even more interesting part, from my point of view at least, is the setting up and running of the car, and just how well it performs in the heat of competition can now be revealed for the first time in print - you always read it first in *Model Cars* folks!

The first foray onto the track took place in early December in the confines of the local indoor club at Slough. Racing on carpet on a smallish track is not what 1/10th circuit racing is really all about, but winter in England means that this is where many of these cars will be raced, so the experience is not without relevance. The car was set up on the standard kit tyres and the 21 double motor geared at a fairly short 14/82 gear ratio to start the ball rolling. Cells used throughout

the test period were *Phil Greeno* Custom computer-matched *Sanyo* 'SCEs' which proved a revelation to someone who had never used these cells before.

The cells were charged for the first run on the new *Midland Power Supplies* 'Slope Charger' as recommended by many of those 'in the know' on battery technology, and with the tyres liberally Tractited, the 'Sizzler' was shown to the carpet. Initial runs revealed that the car was very quick but dramatically undergeared. The handling was unpredictable, with fairly vicious oversteer as soon as the power was eased in the turns, and there was a general uneasy feel to the car. Back in the pits, the suspension set-up was investigated and after some deliberation it was discovered that the rear shock absorber possessed insufficient free length to really press the rear suspension rod down onto its

stops causing the rear axle assembly to offer very little roll stiffness. By the simple expedient of unwinding the plastic ball socket moulding a few turns on the damper shaft, the free length of the assembly was increased by a couple of millimeters. This resulted in far more pressure and therefore roll stiffness on the rear axle. At the same time, the coil spring was further compressed by moving the adjuster collar down on the damper body.

Another set of SCEs were installed, kit tyres re-Tractited, and the gearing changed to 15/82 for the next run. The 'Sizzler' was now feeling far more impressive with real crisp and predictable handling, and a greater turn of speed. However the least touch on the track markers caused the offending front wheel to move the steering block 'over-centre' and remain on full lock until physically turned back by a marshal. Subsequently, this