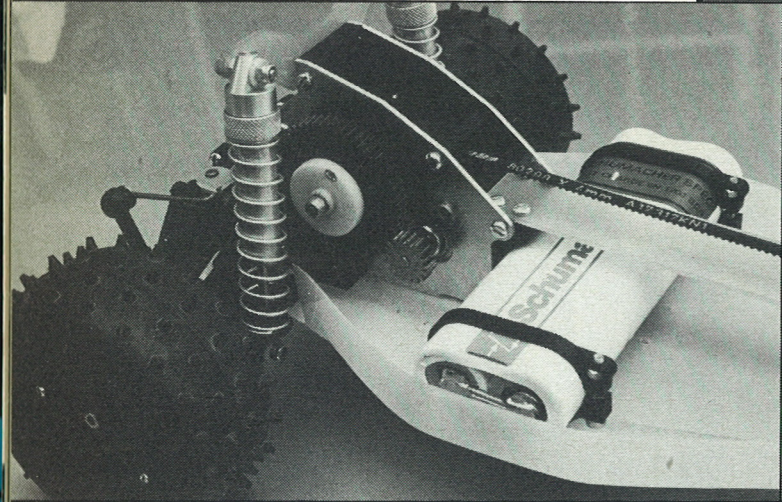
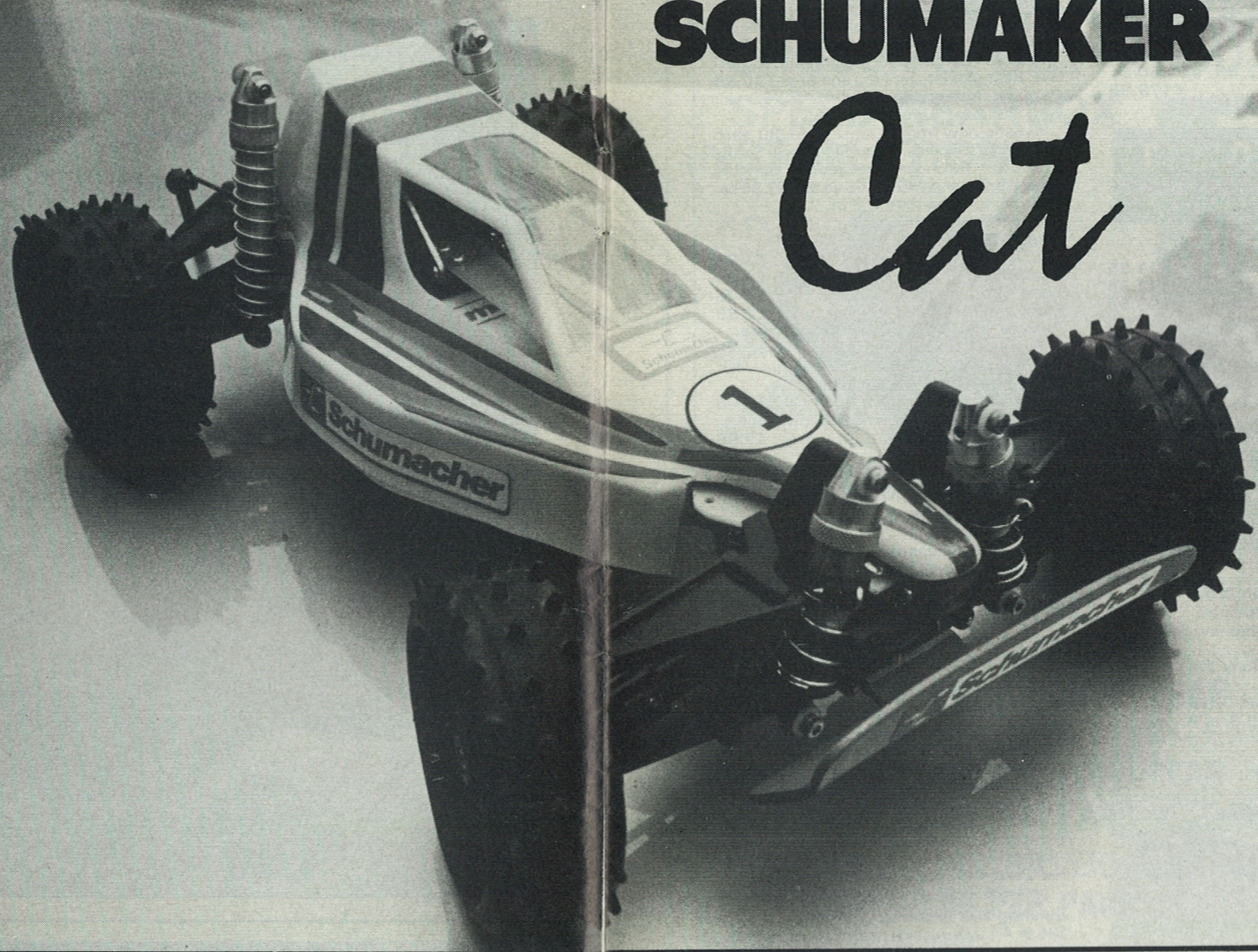
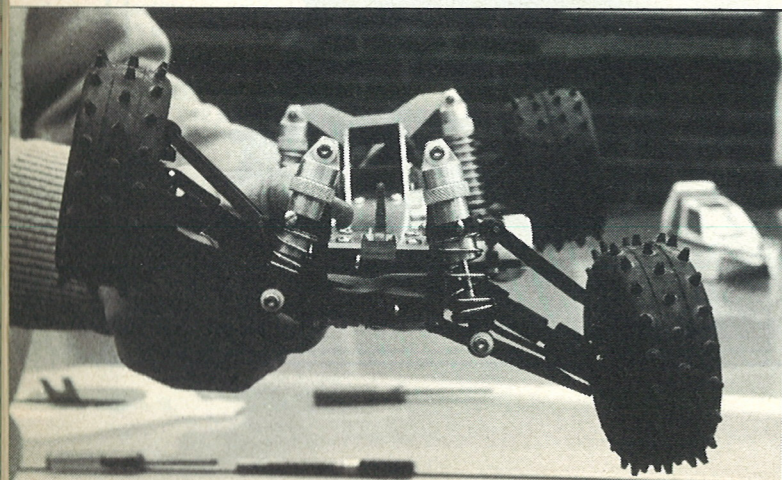
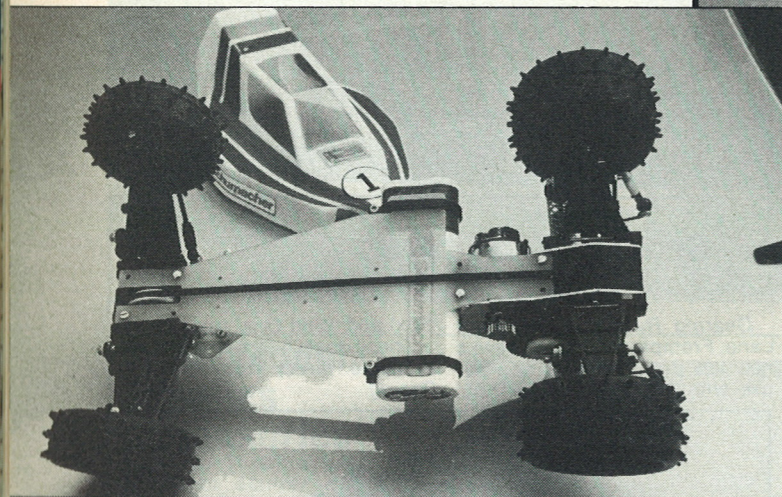


DEVELOPMENTS

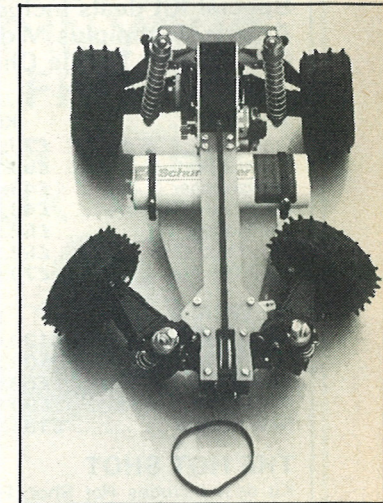
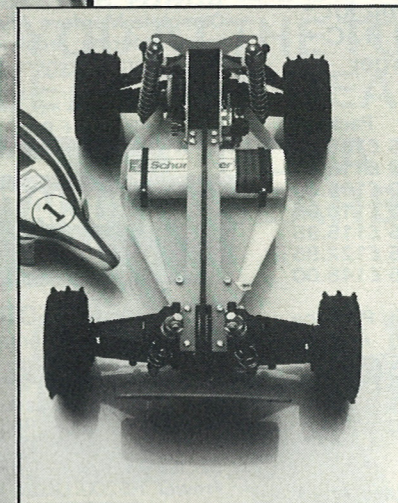


Above: close up of rear damper mounting and differential which is based upon Schumacher's 1/12th limited slip device. Below: from underneath showing Kevlar drive belt running front to rear. Chassis is 1.5mm GRP. Bottom: massive amount of suspension movement at the front (70mm) driveshaft are telescopic and very difficult to throw.

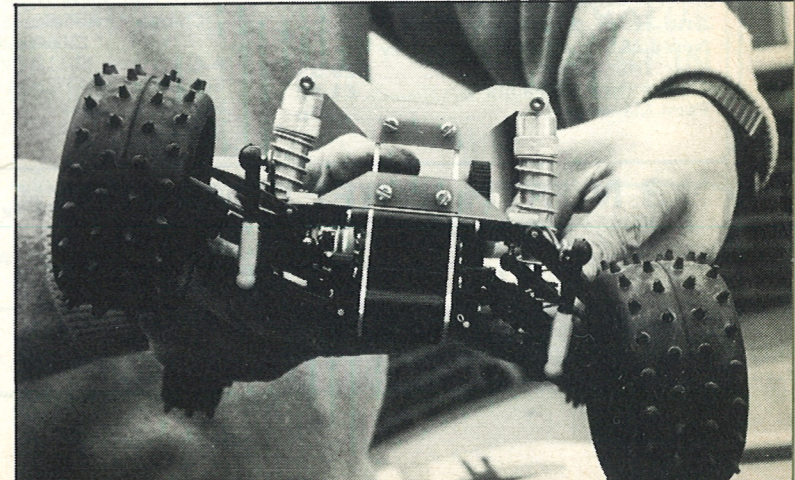
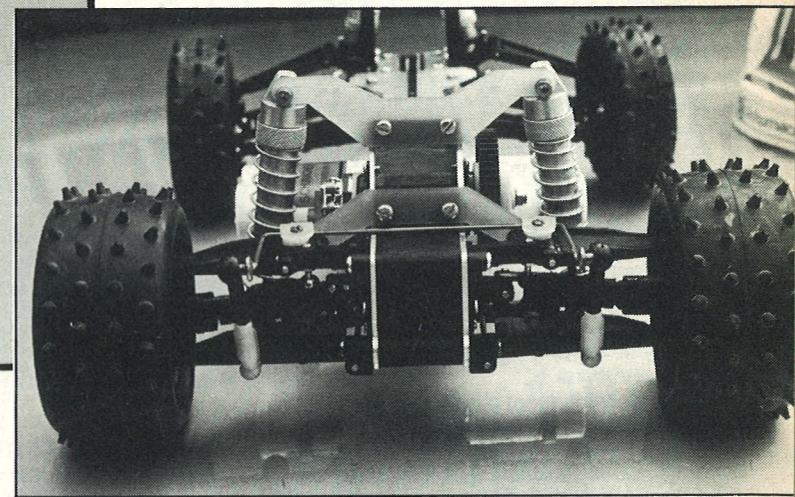


SCHUMAKER

Cat



Above left: from above the car is fitted with a Lexan undertray to stop dirt getting in. Above right: the shock absorbing front-end. An elastic band holds the two sides together until front on contact forces the side back. Below: the rear-end showing anti-roll bar fixing. Bottom: rear suspension movement should cope with virtually any track irregularity.



Snippets of information about Cecil Schumacher's latest project, a 1/10th scale Off-Road race car have been carried in the Developments page for some months now.

Release dates came and went, prototypes went on parade and finally a name was settled on. The 'CAT,' standing for Competitors All Terrain was regarded as the title to end all titles by the Schumacher design team, now all they needed was a car to go with it.

Finally after much persistence and nuisance making by Model Cars an invitation to photograph the final prototype was made. No second thoughts required, just a quick dash up the M1 to Church Brampton in Northamptonshire, camera in hand to bring you the details.

The 'CAT' was in pieces when I arrived but soon began to take

shape in the experienced hands of Cecil Schumacher.

The drive system bears witness to the early close collaboration between Schumacher and PB Racing Products when a joint creation was on the drawing board.

Three thin Kevlar toothed belts transmit drive; two between the adjustable ball differential and rear axle, the other between the two ends.

Only one differential is included meshing with the mid-engine mounted motor. The front-end features one-way roller clutches on the drive output sockets. The rear axle is split and driven separately from the motor.

The pulley for the front to rear drive belt is sandwiched between and by using a simple clutch adjustment the drive ratio between front and rear can be adjusted from full four-wheel

drive to rear-wheel drive only. Fourteen ball races are needed and supplied using the fully shielded variety.

The suspension system is particularly interesting incorporating a massive amount of suspension movement (front 70mm/rear 60mm) whilst retaining an even tyre contact patch. The front-end is unique. Either side of the front-end will pivot backwards during contact to absorb any contact forces. Steering and drive are retained the latter through simple telescopic drive shafts which take up any slack during movement. Wheelbase is 250mm.

The dampers on the prototype were manufactured by Brimod Engineering Developments although Schumacher will have their own examples in due course. These will allow the ride height to be adjusted and will have a choice of pistons

available.

The materials to be used are glass reinforced nylon for the injection mouldings, GRP for the chassis and ally for the motor sideplates.

Tyres are to Cecil Schumacher's own specification, low profile and similar in dimensions to Tamiya 'Hotshot' types. The three part hubs will accept any tyre based upon the 'Hotshot.'

Finally the bodysheet and undertray encase the CAT effectively to keep the muck and moisture out. The latter also serves as a belt cover. The bodysheet has been specifically designed for the CAT and nothing else.

Schumacher plan to sell the CAT without motor, Ni-Cads and Speed Controller. However these items can be supplied separately to give a total racing package less radio gear. The asking price is £175.00 and the latest release date mid-June.