

The Schumacher CAT arrived over six years ago, various National Championships, European Championships and a World Championship have been captured by the car. Pete Winton looks at the original prototype, Masami Hirotsuka's winning car and the latest car in the series the Bosscat...



Cat

AMOUNGST THE PIGEONS



From the original short wheelbase car to the Hirotsuka winning car and up to date with the latest generation Bosscat. The ideas remain similar but the quality of parts has increased greatly.

RADIO CONTROL MODEL CARS

We always stopped at Corley services on the M6 after a Mini-Nats meeting at the Stafford club, but on this night the customary sprint to the Little Chef was interrupted. Out of the boot of Andy Dobson's car came this experimental off-road buggy which he proceeded to wheel round the car park at high speed. Hardened 12th-Circuit racers guffawed as Glyn Pegler raved about its handling and traction, he was half way to insanity in our book as the part-time driver of a Bolink "Bigger Digger". Dinner was punctuated by heated debate on the unlikely future popularity of these demented rats, and how the pure racing skill of 12th-Circuit would always be more attractive.

Schumacher's Competition All-Terrain off-road car, the CAT, had been born, and we have here the prototype from

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under power, and its short wheelbase made accurate cornering the province of the masterly driver, not the clubman. Drivers were recruited from everywhere; Pete Stevens and Glyn Pegler being two such game racers. By the end of winter testing in the spring of 1987, the CAT was still being beaten by the Optima, and even the RC10.

February 1987 saw the release of the PB Mini-Mustang, and we felt there was every chance it could steal wins and sales from the fledgling CAT (kitten?) with its superior assembly and simple layout. Jamie Booth was contracted to drive PB's new car, with Glyn, Pete, and Andy Dobson the main protagonists for the CAT. Suddenly, all that changed as

All three of the cars feature the unique Schumacher crash back system that must have saved plenty of broken cars over the past six years.

which it all started. The CAT next pervaded my conscience when then-Editor Lewis Eckett phoned to ask if I had read Geoff Driver's review in the December 1986 issue of Model Cars. Schumacher had taken definite umbrage at the tone of Geoff's opinion, detailing as he did the scarred hands and stabbed fingers he suffered trying to build the kit. Whilst we should always call it like it is, this time there was perhaps a way of saying things with a bit more subtlety. Little did we know how much money had been sunk into the car, and how much a 'result' meant to Schumacher.

Latest Version

The 1992 Bosscat shares little with its six year old predecessor. The basic layout remains the same but apart from the ballraces and the long drive belt, everything else is new. Certainly the fit of the screws and the assembly of the drive shafts are now so easy as to provoke not a single comment. Back in 1986, the car came with two one way clutches in the front axle, but no differential. It was a handful to drive; like a rally Mini with a limited slip diff, it darted hither and thither

Glyn, wellies and all, stormed to victory in the Reedy Race at Romsey, the warm-up for the 1987 World Championships. Success at this level had been wrought by the CAT, but not the CAT we had tried and tested.

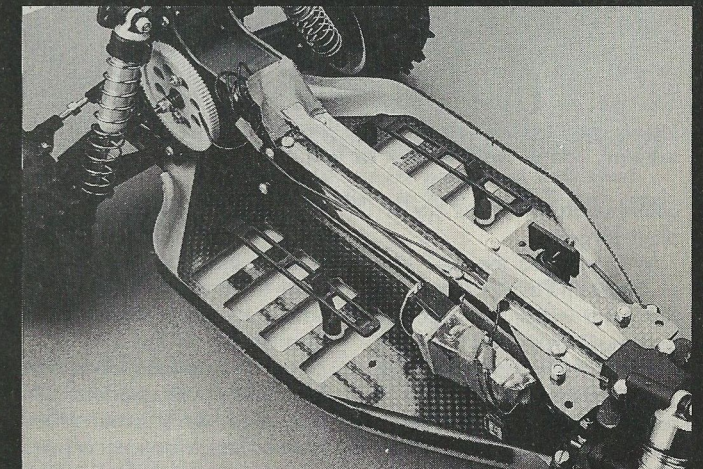
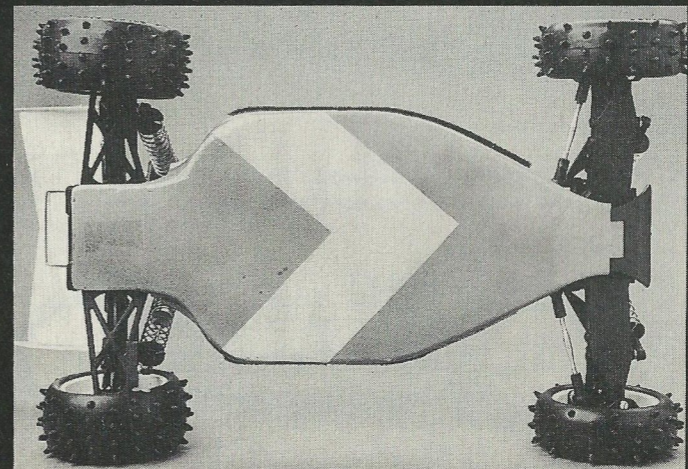
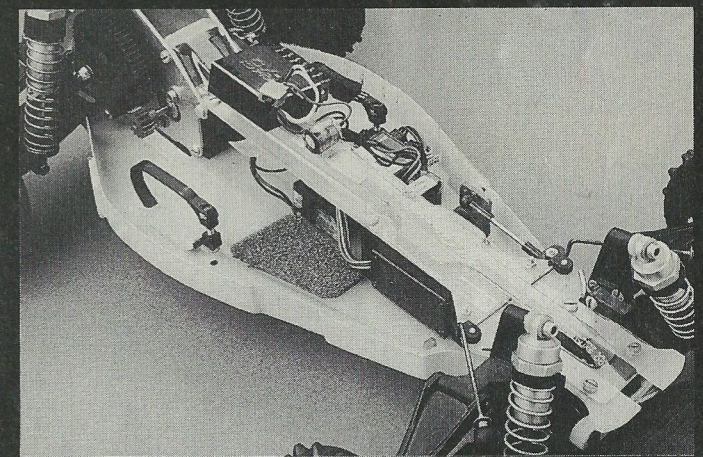
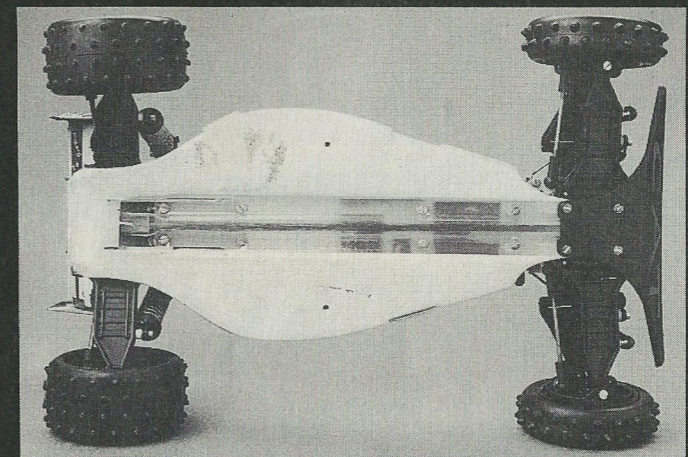
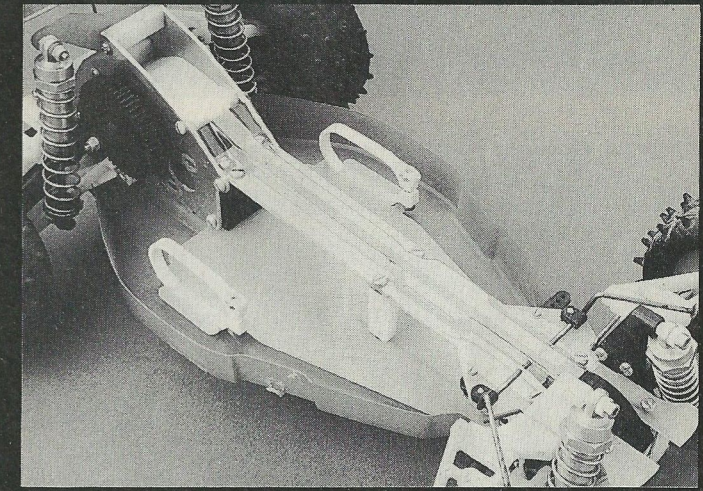
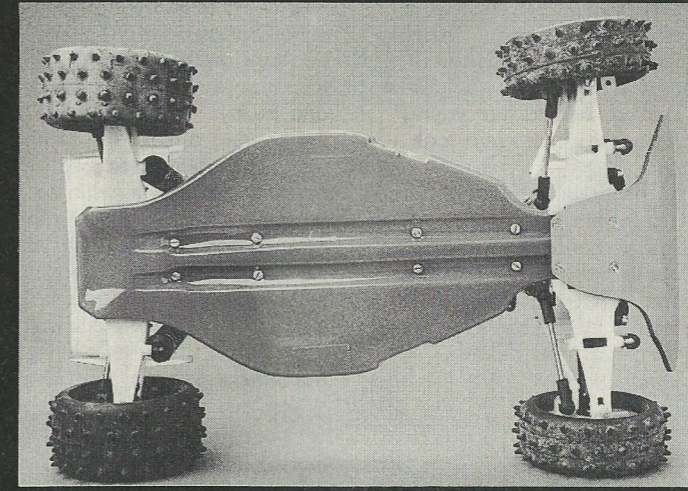
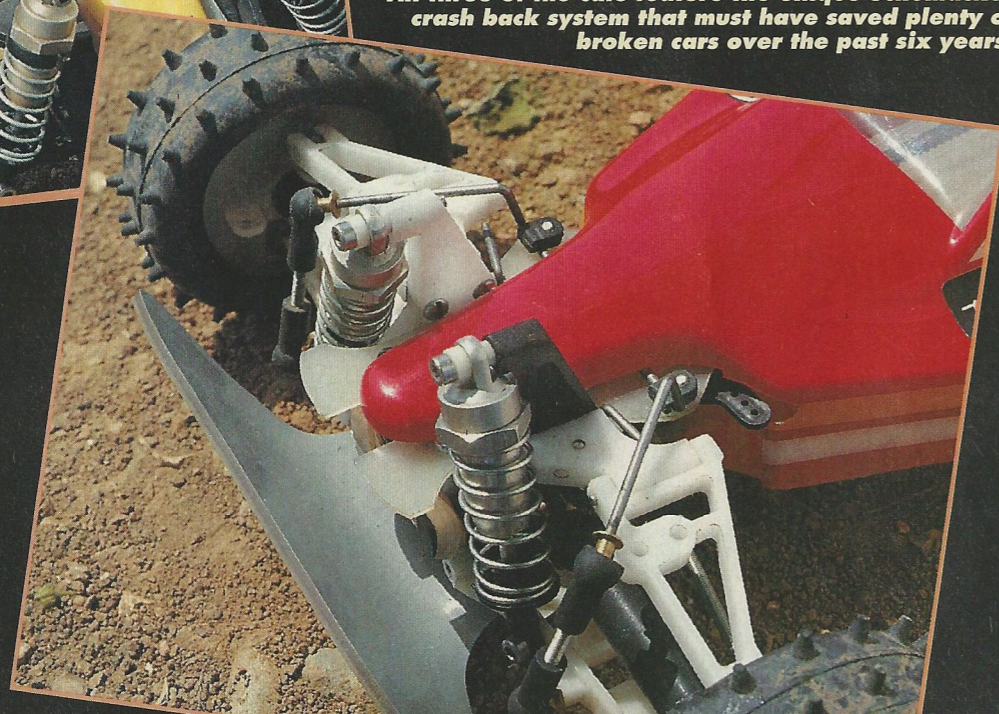
Between January and May, the car had grown a front differential and some 20-odd millimetres in the wheelbase. These and other subtle changes had transformed the nervous kitten into a growling

CAT of awesome capability. Within days of the win many were predicting Glyn would be the World Champ, and in the next few months he won every race he entered of any stature, with the notable exception of the European Championships which were pinched from under his nose by Phil Davies. Jamie Booth, having abandoned the PB after qualifying for the K Final in Romsey, was third with an original short CAT,

and seven of the ten 1987 Euro-finalists were CAT drivers.

Perhaps the biggest change to the car was pioneered not by Schumacher, but by erstwhile pop star Bob Morris. He changed the original Integrator for a solid drum differential in the rear gearbox. The Integrator was a means of varying the amount of drive to the front of the car by using a second differential in the bottom of

the gearbox. The main diff was on the spur gear, and the integrator was in the middle of the bottom pulleys. This was felt to significantly reduce the drive to the front when one of the rear wheels lost grip, and many drivers bought the Bob 'Dog' Morris drum diff. For a long time, Schumacher insisted that the drum diff was not a worthwhile improvement, but eventually they too succumbed to the prevailing trend. Bob's



Underside of the three cars shows how the belt has now changed its path on the Bosscat.

Saddle packs were all the rage in the 'Old' days, Bosscat now has saddle pack cells and quick release straps.

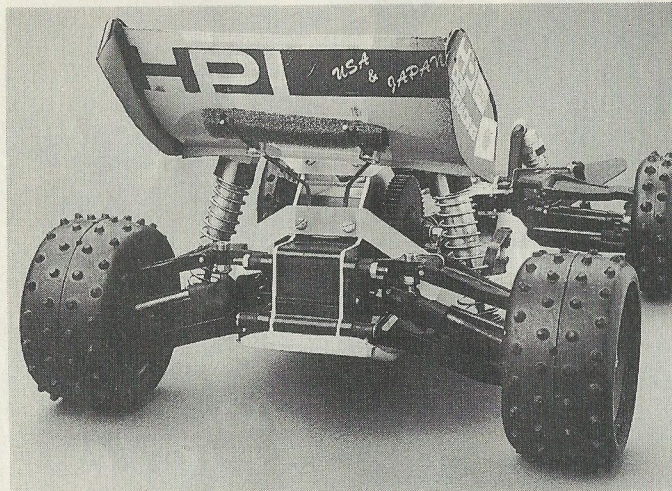
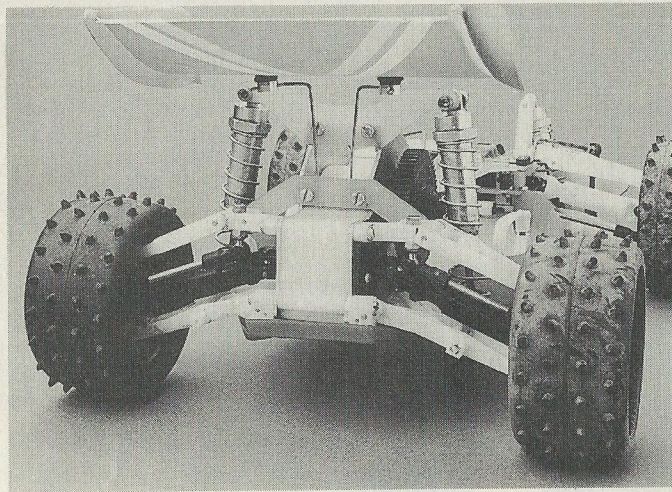
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eyes were on the stars - Glyn Pegler, Phil Davies, Jamie Booth, and Cliff Lett of America. Glyn's plans were scuppered from the start since he was tipped to win by Bill Jones in the foreword to the programme, and he duly disappeared without trace. Phil, least said soonest mended. But Cliff and Jamie starred, behind that young Japanese driver who took pole.

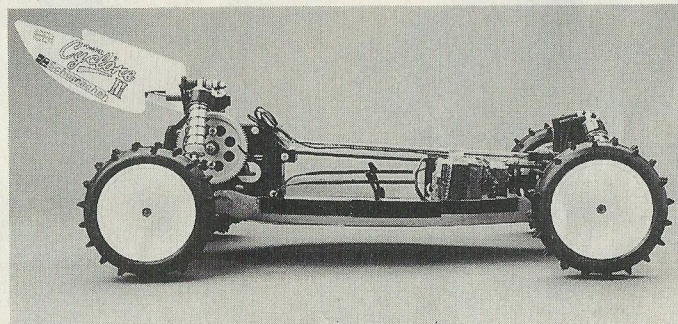
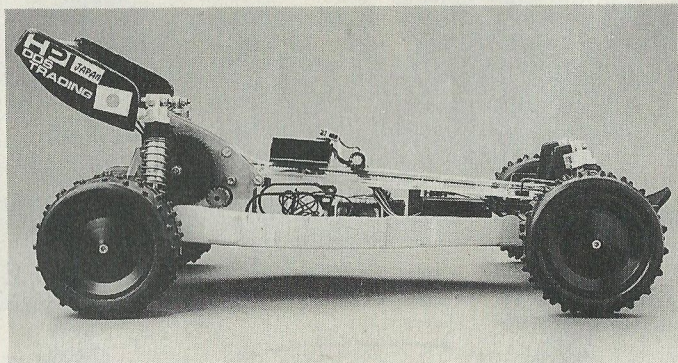
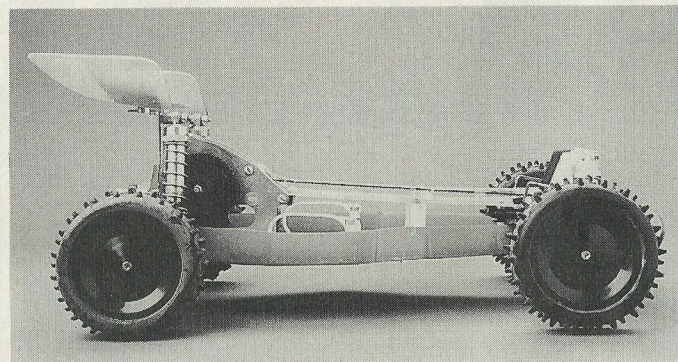
The Bosscat featured here is a full graphite version with said material used for the chassis and shock mounts. The new Pro-Diff first seen on the Cougar2 is used for both front and rear differentials. This is without doubt the best

differential in the world right now. Our Storm truck so equipped has finished three meetings in rain, mud, dust and dried grass without a single adjustment. The smooth positive action it gave from new is undisturbed.

For the Bosscat, the rear gearbox undergoes a slight re-design to the side plates and pulleys to further refine the power-train. At the front, a positive cam-based belt adjuster replaces the simpler design of the ProCat, and the front differential can now be removed without stripping the whole car. The front gearbox is split horizontally instead of vertically, and the top and bottom halves embrace the



Wing mounts have changed from the early flimsy mount. Car is now wider at the rear.

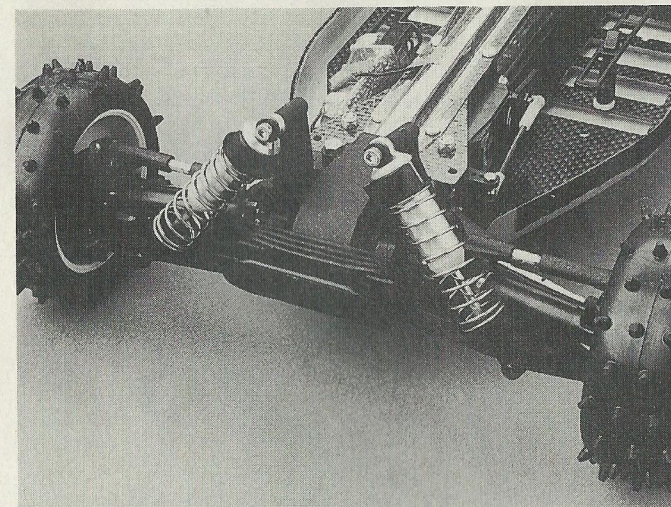
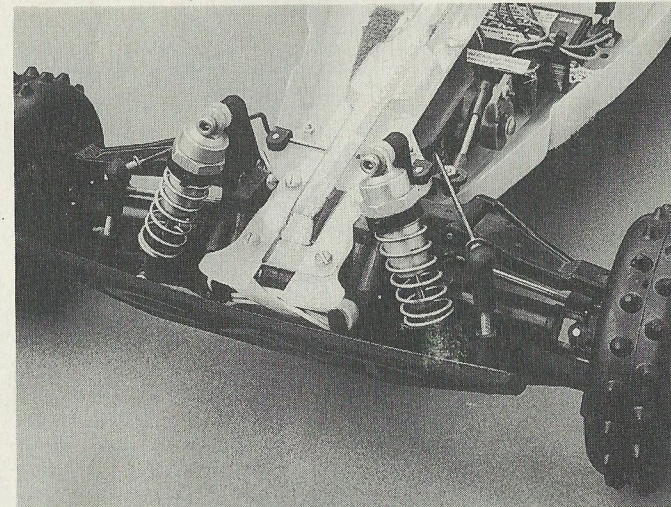
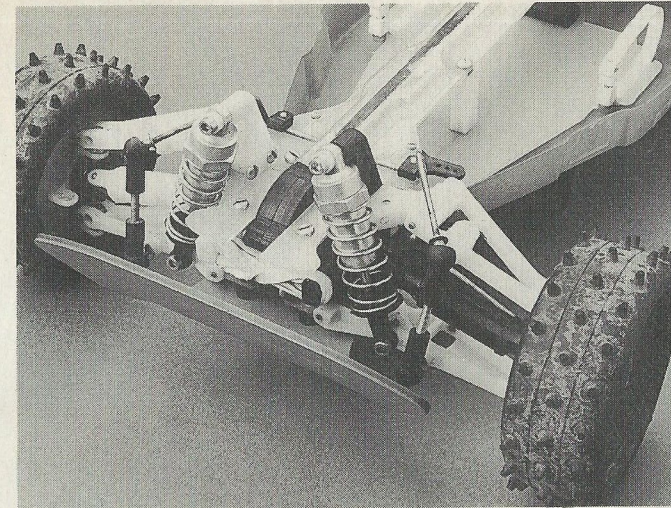


The old car was of course much shorter than today's version. Note new Bosscat also has 2.2 inch wheels.

contribution to today's car is often forgotten.

We reviewed the CAT XL in August 1987, and the CAT XLS (with wider rear track and more front castor to name but two mods) in June 1988. In that time the car realised Cecil Schumacher's long time ambition, to win a World Championship. A worse start to their campaign was difficult to imagine as,

without a specialist 2WD car, the CAT's floundered when used in this class with their front drive disconnected. A young Japanese driver finished 8th in the 2WD class, and he was to drive a Phil Booth built standard CAT XLS in the 4WD event. We took so much notice of him our report of the day does not even record the car he drove in 2WD. For 4WD, all

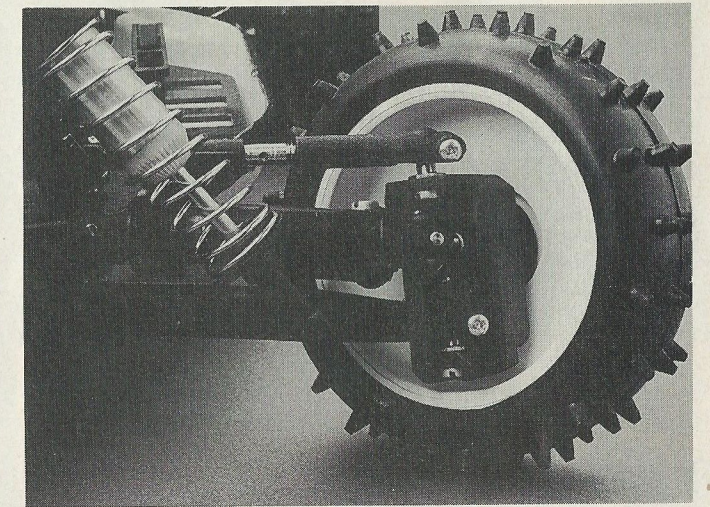
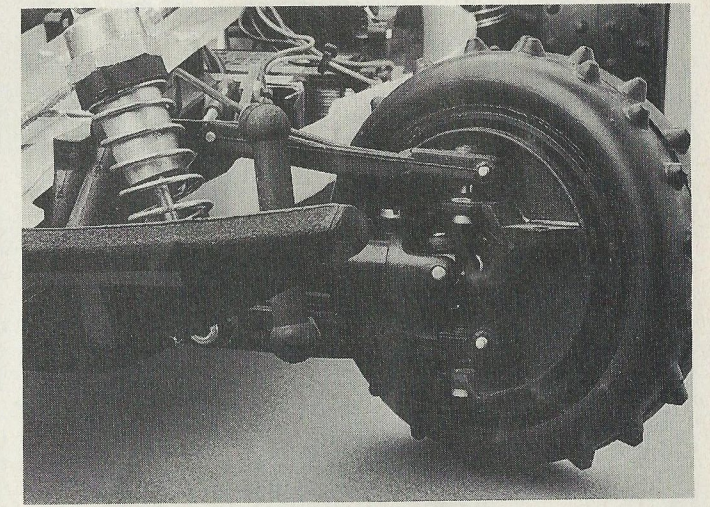
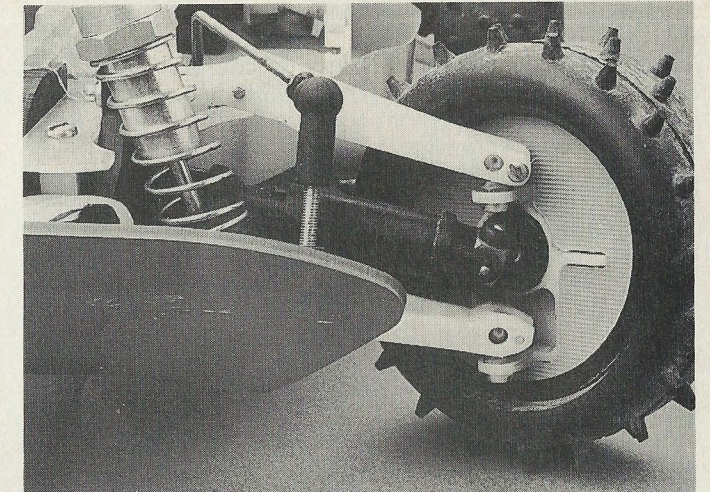


Short shocks have now changed to longer units that sit at a greater angle. New dampers are now also a totally new design.

familiar crash-back suspension system. A new Cougar2 style slipper clutch is fitted to certain models in the Bosscat range.

The belt from front to rear now runs on top of the bottom chassis plate, thus lowering the centre of gravity and allowing a larger gap

between the top and bottom chassis plates. This extra room can be exploited with a wider range of speedo's now fitting the available space, a most welcome improvement. There are two solid braces for the chassis to improve the rigidity even further, and this should help



The early car was praised for its enclosed hub that kept the stones out, now the car has a small hub and smooth inner wheel.

the car when riding the bumpier circuits.

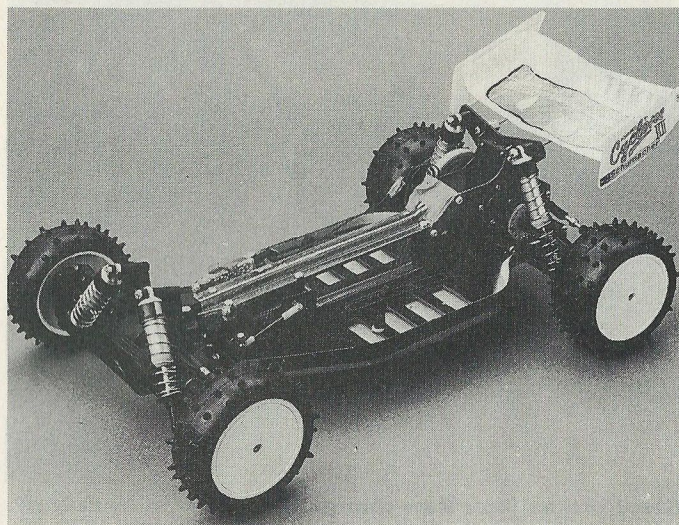
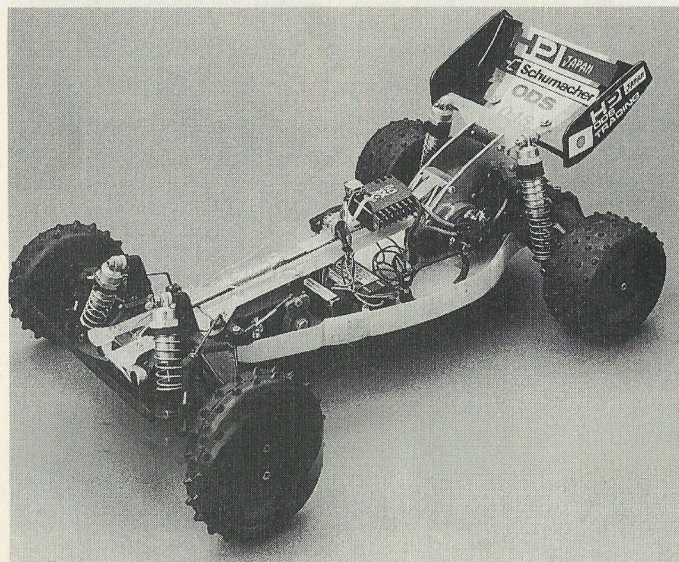
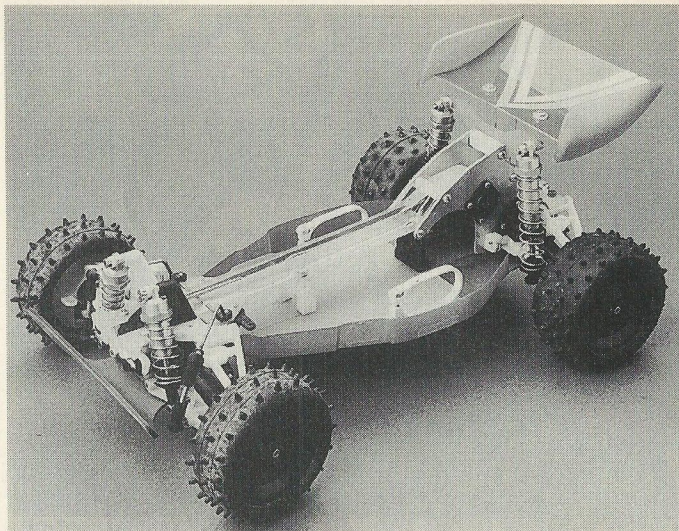
New Pivots

Whilst the rear suspension is very similar to the ProCat, the Cougar style 1/8th inch wishbone pivots are used, and the top link pick-up points have been revised. At

the front a new top and bottom wishbone are evident, the top one featuring adjustable camber for the first time on a CAT. Rear shock mounts have a range of positions for suspension tuning, but the front has only two which is actually less than the old car. There are

no anti-roll bars in the kit, again a first for the CAT range of cars. The body shell is not one of the better designs on the market. Whilst it features the undertray first pioneered in the market by Schumacher with the CAT, the design is less than eye-catching. Worse than that, on our very early production example the cut lines for the shell and undertray were almost non-existent, and it took some time and effort to get it all aligned to the chassis. Simple velcro fixing of the undertray is a vast improvement for maintenance, and the simple (once you've worked out the curves!) wraparound of the body to enclose the spur gear is

inspired. Quality is superb, and it is very difficult for today's driver who never built an original CAT to know how much the kit has improved. Everything fits as it should, and there were no hassles in putting the car together from the excellent instructions. There is still a little too much flash on some of the mouldings, but that is to nit-pick rather than find any serious fault. The build of the differentials is superb, and the quality of the bearings and other bought-in hardware is beyond reproach. Quality is definitely still on the up in darkest Northampton, but they are not quite yet at the summit. The dampers are not such



Slim XLS chassis has been changed for the wider more stable Bosscat layout.

a success story, but things continue to improve. The new piston rods are now available and do make a difference. We continue to polish ours before assembly using 1200 grit wet and dry followed by Duraglit or T-Cut for that final

in a drill at the circlip end and run on a slow speed. Be careful as the wet and dry paper gets hot, and the rag used with the final polish can get snagged on the thread or the chuck. Rub the shaft with the wet and dry for a few seconds only, then rub with



some worn wet and dry, then polish to a high finish. The result is a much improved shock action.

We find that the adjustable pistons tend to adjust themselves during racing, but a cure is about to be released from the factory in the form of a new piston design. When they work, they work very well indeed, and despite the occasional piston-turning problem, all our sets (on Cougar, Storm, and now Bosscat) have been completely leak-free. Their light weight and easy assembly are the best in class.

The lack of a decent body for this, and other, cars brings us back to the old XLS, whose slim and shapely body was perhaps one of its finest features. There has never been a finer or more graceful shell for an off-roader before or since, and our story resumes with a black and yellow XLS shell racing around the track at Romsey in 1987.

World Champion

That Masami Hirotsuka won the 1987 4WD World Championships with quite the most stunning display of driving seen for a long time overshadows the efforts Cliff and Jamie made to prevent him. Jamie was third, Cliff was fourth, and Schumacher were on the map. A car which had not even been on sale at the close of the British season in 1986, and looked nothing like the car sold in the spring just four months previously, had come to the biggest event in the world and won. A World Champ spec XLS with chrome wheels and 'productionised' mods was released and sales boomed. Within three years

of the Worlds result, Schumacher had moved twice to larger premises, and sales forged on beyond the seven figure level to reach an all time high only last month - in the middle of the recession! The new Bosscat has much to live up to for not only is it the best in the CAT lineage, but the most likely to succeed.

The CAT line has won in every year since 1987 - National races, National Championships, European Championships, Regional Events, Clubmen's; not only here but in just about every significant 10th-Off-Road country in the World. The next target is America, as Schumacher Inc. starts its long hard climb to establish the marque in the biggest market of the Western World.

This is a story of luck, judgement, management, and timing - both good and bad. Above all it is a story of people whose commitment to the product comes before all else, and that commitment has resulted in success for sales, profits, and expansion. There are some very public failures in the last few years who would do well to follow their example and concentrate on the customer and not their share options or salaries. We enjoyed being part of it and look forward to being there for the future, but back on that dark night in Corley services it never seemed that this funny looking model car would be so big in so many ways.

Major Cats

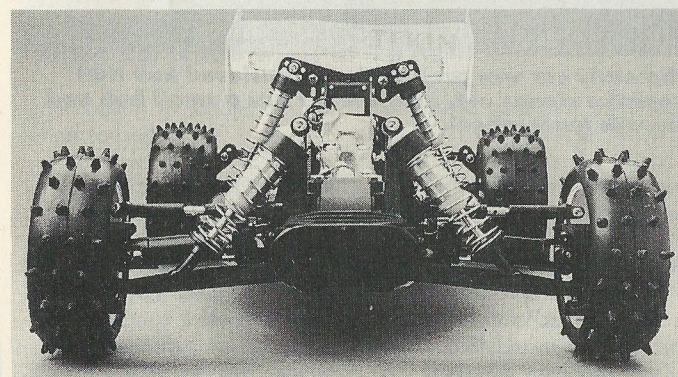
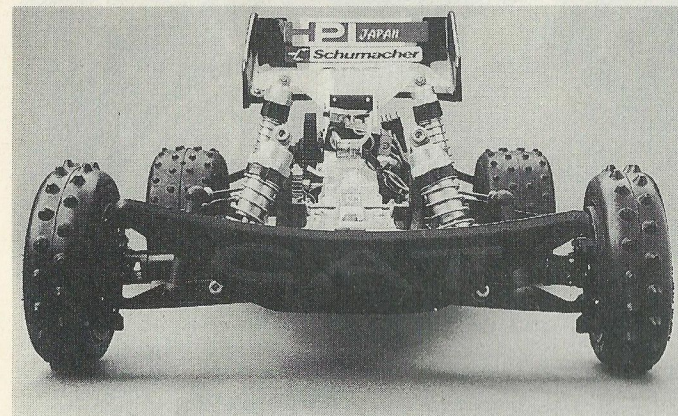
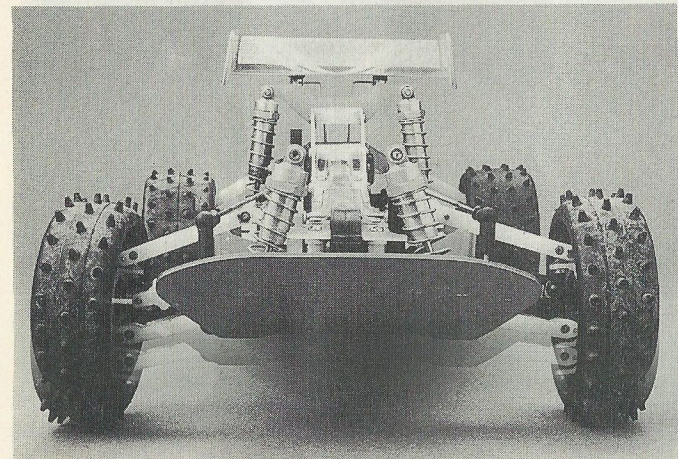
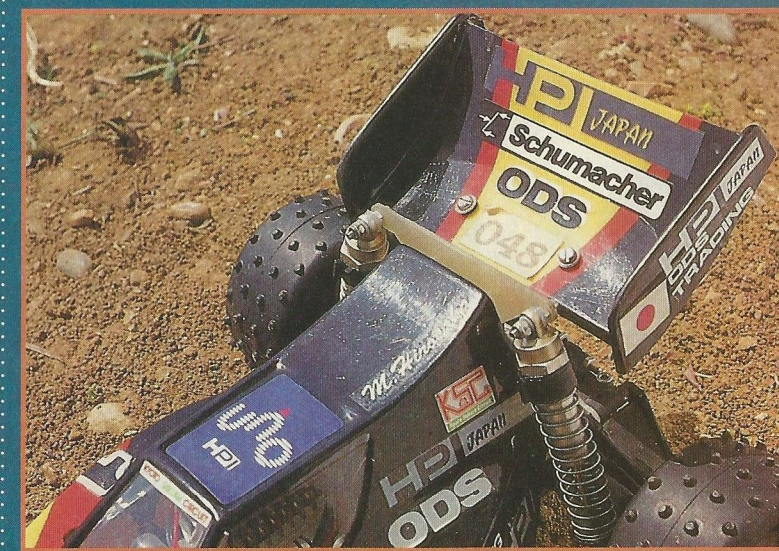
There are three cars in these pictures, all with a history. The original prototype CAT courtesy of Schumacher; the World Champs winning CAT XLS, presented to Cecil

Cat AMONGST THE PIGEONS



Our thanks must go to Cecil and Tim at Schumachers for the loan of the original prototype and Masami cars.

Schumacher by Mr Hirotsuka and exactly as it came off the track on the day it won at Romsey. The Bosscat as supplied for review by Schumacher and to be raced in 1992. Our thanks to Schumacher for the loan of the CAT and CAT XLS.



Wider, lower and sleeker. New bumper on the car is now a lot smaller than on the XLS.