



Sch.... you know who

Substituting the history of British 1/12th scale circuit racing for a 'C-Car' spares list might be considered appropriate.

Pete Winton talks to Cecil Schumacher, the man who brought us the diff, O-rings and all that GRP.

To get a job at Formula One engine-builders *Cosworth Engineering* might be considered a dream come true to many enthusiasts. To give one up for something as volatile as 1/12th racing takes a very determined frame of mind. Cecil Schumacher, seems to have capitalised on all these qualities pretty successfully. At first acquaintance you come away thinking he should be an absent minded professor: he has a disarming habit of losing what you feel is the point. But there is a sense of humour, and a desire for professionalism which is rare anywhere, let alone in his chosen market. Taking a cynical viewpoint you could say that anyone who can be the Chairman of BRCA and EFRA 1/12th

sections must have a sense of humour to get by!

For 1986, Cecil gets down to the challenge of launching his new 1/10th car, the CAT, and taking another look at the successful 'C-Car' to see if improvements could bring more success. I emphasise the word could because as this article is written there are strong rumours that *Associated*, long time arch rivals, introducing a new car. Until this appears in competition, there is no certainty that it will be any improvement on the current 'C-Car'. It is these constant challenges to Cecil's fertile mind that keep him going, and goes some way to explaining why he gave up his comfortable job at *Cosworth*. Cecil's schoolboy days began in his

home town of Coventry, and ended after one year of lower sixth. For family reasons he went to *Lockheed* for a three month trainee course leading to an engineering apprenticeship. Not content with eggs in one basket, he had also applied to the RAF for a flying scholarship. This resulted from a passion for planes during his days in the ATC which gained him a private pilots licence at the age of 17.

He decided to leave *Lockheed*, despite his boss' opinion that he was mad. His initial eighth year term as an Air Signaller drew to a close when Cec' could not complete the Air Crew Training. Reverting to National Service, he worked as a radar operator and met Frank Gardner, who

features again in this story.

On leaving the RAF Cec' worked with his stepfather for three months. This local businessman had a predilection for giving Cecil the sack every Friday night, until one weekend Cec' decided to stay sacked. Despite applying for several jobs, the lack of an apprenticeship was now a drawback. Undaunted he set about doing his own apprenticeship by getting different jobs in the various areas normally covered by a four-year course.

Starting as a toolmaker with the promise of becoming a draughtsman, he rapidly found the drawing office to consist of no more than the governor's desk. A vacancy in the local paper for a trainee draughtsman at *GEC* resulted in Cec' going through their internal training scheme whilst continuing college for his ONC on a day release basis, fully intending to carry on to a diploma course. *GEC* turned him down to his disbelief, so he packed his bags and left to work for *Hobbs*, the gear specialists. He stated right from the outset that he wanted to complete his HNC, and this determination appealed to them, he was back in work again. Who should he find there but Derek Gardner.

Hobbs got their money from backers who wanted the gearboxes they designed. After a blue patch old man *Hobbs* fell out with their latest backers and Cecil moved to Bolton where *Westinghouse* wanted him to oversee the tooling up of a new transmission for *Ford*. By saying no for long enough, he managed a non too small salary rise, but this project collapsed when *Ford* withdrew. Two other colleagues from the aeroindustry had designed high efficiency transmissions, and their first thoughts turned to selling the ideas to industry. This did not work out, so pride was swallowed and Cec' contacted the opposition, *Borg Warner*.

After a visit he was offered a job. In a

style still evident, he disagreed with some of the designs being planned at *Borg Warner*, so they gave him a job as Head of Product Liaison. This gave him a chance to do other things, and most importantly got him out of the drawing office. Later he took the job of Executive Engineer in South Wales. A new four-speed transmission was his bag, and it took him to *British Leyland*, and the renowned George Jones, Chief Transmission Engineer. George quickly threw out the transmission when he burnt his hand on the oil cooler. How, reasoned George, could this be a more efficient transmission if it needed an oil cooler? Non too politely, Cecil was asked to leave.

Onto Cosworth

Shortly after this Keith Duckworth, head of *Cosworth Engineering*, rang and asked Cecil about a transmission system for racing cars. A clever idea patented by *Hobbs*, Cecil's earlier employer, had interested Duckworth. He bought the rights to develop and market the new *Hobbs VKD* system, and wanted someone to develop it for racing cars. That man Derek Gardner was involved both as race car designer and transmission expert.

Being known to Gardner and *Hobbs* made Cecil an ideal choice for them, but Cecil was really trying to get rid of Duckworth by agreeing to come and see the plant. It didn't seem like Cecil standing in the *Cosworth* plant saying yes he would come, but it was, and he did. That was in the early seventies. Through some years work, including several weeks on his back with a slipped disc, Cecil became singlehanded the designer, manufacturer, and tester of the new transmission. This exciting background was all leading to one thing, 1/12th racing.

Into 1/12th racing

"How did you get into 1/12th racing?" I asked. Quick as a flash Cec' replies, "That was Robin's (his son) fault!"

Attending a modelling exhibition in a local drill hall, Robin discovered Radio Controlled Cars. Cecil resisted buying the known 1/8th gas car and traipsing all the way to Lilford to race but there in the hall was a *Mardave* 1/12th car. Soon, Robin and his mates Phil Spencer and Bill Coles, were racing in the local school yard.

Unable to resist things mechanical, Cecil became involved with first thoughts turning toward the use of a differential: had to be some transmission part!

A visit to Wes Raynor of *Mardave* with the idea of a sophisticated differential in his head brought agreement with his idea, but only if it could sell for a fiver! Cecil had not thought of that, but appreciated the market potential of such a device at a low price. This initial meeting started a relationship which persists, and Cecil still has a high regard for Wes and his clever low cost products.

Gardening promotes the imagination and so it was, amidst the greenery that the idea for his differential arrived. The use of ball-bearings in transmissions are a well known option, and he had encountered a variable drive unit for laboratory use in his younger days. Dashing into the house for a slide rule, he worked out the torques required to move the car, and taking into account the weight, found that frictional forces would be easy enough.

It also taught him that a good way of making things is not always full size. Using a *Mardave* wheel/gear moulding, he separated the wheel and gear, drilled holes for the balls, and reassembled with thrust washers. The first ones were a bit stiff, but once developed it helped Robin

Below; in the workshop with the Schumacher design, development and manufacturing team. With Andy Dobson (left) and Tim Walden (right) Cecil Schumacher has once again engineered a winning combination.



to win. After a while, it was difficult to tell how much this helped, since Robin was the local hot-shot and won most of his races.

Cecil took his idea to Wes Raynor to show him the result, and encouraged by that conversation bought a second-hand moulding machine to make the parts. Team members were roped in to regular Saturday morning build sessions during which up to 200 diffs would be made ready for despatch the following week. All were assembled by the lads since there was a bit of an art to it.

The popularity of the diff rocketed, and the not undersalaried Mr. Schumacher found the taxman getting more of his pay. The moulding machine was pressed into making front wheels. During 1978 and 1979 saw the infamous Plastic Pinions and the rear sleeve system developed and launched onto an eager market. In 1980, a lightweight axle was introduced, and *Schumacher Differentials* as they were known, started to generate a turnover which seriously challenged Cecil's desire to stay at *Cosworth*.

So it was that at the beginning of 1981, Cecil left to pursue the Schumacher model car business.

July 1981 produced the Lexan chassied *Schumacher 'XL'*, an instant hit, and a useful earner for Cecil. The simplicity with which he cut and formed that chassis is an object lesson in production engineering. At the same time the servo-saver was released, another time served product unchanged for years.

In 1982 came the 'C-Car'. After the early

days during which the 'little bits and pieces' were panned in the modelling press, and drivers with enough courage to run one were few, the car developed into the winner of today.

Brenda Schumacher was involved from the word go, and takes a special award for the most understanding of all racing widows. For much of their married life, husband Cecil built himself a career and reputation which afforded the sort of lifestyle many would enjoy. When Cecil decided to give it all up and make parts for model cars, the job was full time, the phone never stopped, and just when Brenda thought she might get five minutes of Cecil's time, he would take off to a race meeting! Perhaps amazingly after five years in which his cars and drivers have claimed five National Team titles, four British Championships, one Eurocrown, and FTD at the last World Champs, Brenda is still part of the team.

In 1982 the partnership between Cecil and Andy Dobson became firmly cemented. Any history of *Schumacher* cannot exclude Andy, now a full-time employee. His success with the 'C-Car' through four National Championships is certainly part of the reason the car is so popular.

From March 1986, Tim Walden has taken up the task of day to day management of the *Schumacher* business. Tim's previous experience with electronics have been put to good use, and the latest *Schumacher* product, the 'PC1' Charger was designed and developed by him. This new structure in the business has allowed

Cecil to 'retire' from the front line to look into long-term projects, the first of these is the new 1/10th buggy, the 'CAT' (Competition All Terrain-Vehicle).

Like all things, Cecil's first ideas were the epitome of top class design principles. During development these have turned into more pragmatic production designs, that is designs which can be made at a price the customer can afford. That is not to say there has been a downgrading of the specifications or materials, Cecil would not allow such matters to compromise the end product. But some of the 'nice to have' items are now lower on the list than before, and the normal process of rationalisation has produced a fine looking car of high technical specification.

In the next five years Cecil wants to do more of the same, and become a more professional business. Model cars fascinate Cecil, but it is a fickle mistress. *Schumacher* will look toward other areas outside modelling to keep the wolf from the door. But he still wants to have *Schumacher* cars on the track, and winning if possible.

Cecil Schumacher is a wealthy man, not in monetary terms, but because he has made a business out of his hobby and has a wealth of friends, experience and fun to look back on.

Simply to have survived the last five depressed years is itself an achievement. To have survived them and grown is something few would believe possible in a market as volatile as model car racing. □

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