

Obituary

Nigel Stafford David Allen LDSRCS

31st January 1932 - 26th February 2025

Ed and extracts from the Stanley Gelbier paper on Nigel Allen at the Anglo American Dental Surgeons meeting 2016

It is with great sadness that we have to say good bye to the last remaining Pioneer of the original Lotus Engineering company. Nigel worked alongside Colin Chapman and his Brother Michael after they met one afternoon in 1951 and officially formed the company on 1st January 1952.

Nigel came from a family of dentists where his father and uncle became qualified in 1922 just after the 1921 Dentists act. Nigel's elder brother Derek trained at the Royal Dental Hospital and The London School of Dental Surgery and became a dental surgeon LDSRCS in 1946. His Father ran a Practice in Camden Town.

In 1950 Nigel enrolled at Kings College school of Medicine and Dentistry and studied at the Strand location. He was already a motoring enthusiast and travelled there in an Austin Big 7. He would be there for lectures in the morning and in the afternoon attended Denmark Hill for Laboratory work and carrying out treatments. Nigel Qualified with the license in Dental Surgery from the Royal College of Surgeons in 1955.

Nigel and his brothers interests in Auto engineering.

In 1950 before meeting up with Colin Chapman Nigel and his brother Michael had interests in engineering and used to repair and recondition cars for spare money. They were encouraged by their father to set up a well equipped garage with an engine lift, pit, welding equipment, valve grinder, a selection of tools and paint spraying facilities at the family home in Vallance road, Muswell Hill.

By this time Colin Chapman had already built two trials specials at his girlfriend (and future wife), Hazel's family garage behind their home in Alexandra Park road, Muswell Hill. Later the second car he built was called the Lotus Mark II.

Meeting Colin Chapman and the idea of racing becomes a reality

You could say the meeting up was inevitable seeing the close proximity of where Colin Chapman's girlfriend and Nigel and Michael lived. Nigel and his brother kept seeing a fabric bodied Austin Seven go past their home and one day in 1950 Colin, who was driving it stopped. He probably thought that all his Christmases had come at once when he saw the fully fitted out garage. Then literally that afternoon Colin had convinced them to go racing in the newly formed (1949) class of Formula 750 and it was decided that they would build three cars, one each.

They were each to have different roles with Michael being the engineer (at the time he worked for Johnson Roberts Engine Reconditioning) and mechanic, Colin on design, development and bodywork, (he worked at the British Aluminium Company) and Nigel on Welding (as that was his forte), for chassis modification, suspension mods, exhaust and inlet manifold, silencer pipework etc.

Nigel was to continue his Dentistry studies by day and work on welding in the evenings. They bought three engines and gearboxes before realising time was not with them to finish all three in time for the start of the 1951 Formula 750 season. They decided to concentrate on one car and all three of them would share it until the other two were ready and they registered LMU3.



Pauline and Nigel in a Lotus Mk 3



Some of Nigel Allens Motor Racing Trophies

During his time Colin Chapman had been corresponding with an Australian racing driver called Derek Jolly who was having great results in a modified Austin Seven engined special. He managed to convince Derek to come to England with his engine for a visit and meet everyone. The engine had a de-siamised block and head to allow accurate flowing of fuel and exhaust to each pot. Needless to say that Nigel and Michael were tasked to carry out this modification on the engine for LMU3 which proved to be a huge success in the Formula 750 c.c. races here in the UK.

The Lotus engineering company is born

Following the success great interest was mounting on the Lotus III and a Mark IV Trials car had been ordered. It was decided that it was time to form the Lotus Engineering company and start to make cars and so on January 1st 1952 the company was formed. Larger premises were going to be needed so they moved into bigger premises in Tottenham Lane Hornsey, in the sheds behind Colin Chapman's fathers pub.

By now the Lotus VI was taking off and orders were coming in but the pressures of being the only full time working person were too much for Michael and he resigned at the end of 1952. Lotus continued and chassis production was outsourced to Progress Engineering as again this was now too much for Nigel as he was still studying Dentistry.

Nigel's Racing Driver successes and a return to Dentistry

Nigel continued racing with Colin and bought a Mark VI in 1953 and then a Mark VIII in 1954 and achieved much success as a racing driver winning many trophies. 1955 brought a moment of realisation to Nigel whilst racing at Silverstone. He was racing his MG powered Mark VIII when he found himself travelling sideways at 120mph towards a beer tent and a crowd of people. He thought "this is madness" and stopped racing. He sold the car and got married, and returned full time to dentistry. He gained a one year residential post at the prestigious Queen Victoria Hospital, famous for its war time work on wounded aircrew. They developed many techniques on oral and maxillofacial surgery. In 1956 his father died so he then took over the family practice for a while and his fiancé Pauline was his chairside assistant. Later they sold it and moved to Cheshunt and set up a practice there. (many patients were to come from the Lotus Factory when it moved to Cheshunt in 1959)

On 19th January 1957 he married Pauline and they had five children : Jill Marie (born 1957), Deryn Elizabeth (1959), Christopher Nigel Scott (1961-1963), Simon David Chetwyn (1964), Samantha Jane (1967).

Dentistry Engineering and Innovation

Ever the engineer it wasn't long before Nigel turned his talents to his laboratory and when setting up he

purchased the latest Siemens drilling equipment but noticed that a high speed drill from the USA could run up to 250,000rpm on oil lubricated ball bearings rather than the UK 24,000 rpm machines. In 1957 he decided to build his own high speed drill and bought a Boley watchmakers lathe. His design was a success. He started to produce a readily portable unit on castors with a Handair compressor, facilitating air drying and dental drill with the unit being soundproofed. A modification was included which was a cooling jet stream of air and water. A 120 volt unit was adopted by the Royal Navy and in community childrens dental clinics. And then in many general practices.

In 1959 Nigel formed Micro Turbines Limited in Barnet to make and sell the units. The next move was again to look to the USA where in 1960 development of carbon air bearings were being used. These were quieter and had less friction so lasted longer. He bought a unit stripped it down and made his own parts at his small engineering works in Bournemouth.

With now more continued success he sold his dental practice and in 1962 bought a larger factory in Poole. He employed the services of Dr John Powell to overcome a problem in speeds over 250,000 and with the advice increased speeds to 500,000 rpm. The final air

bearing was named Silentair and patented. Eventually the Dental Manufacturing Co bought his company and patent but Nigel continued the manufacturing of the parts for the now called Whispair drill.

In 1965 Nigel started a new company called Westwind turbines in Branksome. Here he used his expertise gained from manufacturing the tiny dental bearings. He had created extremely accurate grinding spindles and modified accurate grinding machines. This application was put to use in the drilling of circuit boards, by now a growing industry. Subsequently his largest client was IBM.

At Westwind's various applications were found for this extremely accurate air bearing technology such as cutting printed silicone wafers into micro circuits and diamond turning of contact lenses.

Achievements

Nigel Allen's technological advances remain renowned in many fields, helping to produce machine tool shaft rotations of down to better than one millionth of an inch accuracy. For that he will be especially remembered along with his role in creating the very successful early Lotus racing cars which paved the way for the iconic marque of Lotus.

Year: 1951

Date	Race	No.	Car	Drivers	Entrant	Result
28.7.1951	AMOC Silverstone [Formule Libre Handicap FIN]	44	Lotus	Nigel Allen		2 nd
4.8.1951	National Ibsley [1.5/750s]		Lotus	Nigel Allen		2 nd

Year: 1952

Date	Race	No.	Car	Drivers	Entrant	Result
26.7.1952	AMOC Silverstone [Handicap heat 4]		Lotus Mark VI	Nigel Allen		3 rd
26.7.1952	AMOC Silverstone [Relay]		Lotus Mark VI	Nigel Allen		1 st
2.8.1952	Boreham International [S2.0]	19	Lotus Mark VI	Nigel Allen	Ecurie Lotus	DNS

Year: 1953

Date	Race	No.	Car	Drivers	Entrant	Result
6.6.1953	8 Clubs Silverstone [Motor Sport Trophy]	119	Lotus Mark VI	Nigel Allen		3 rd
6.6.1953	8 Clubs Silverstone [Handicap]	119	Lotus Mark VI	Nigel Allen		3 rd
15.8.1953	AMOC Silverstone [1172 Formula]+[750 Formula]	1	Lotus Mark VI	Nigel Allen		1 st
15.8.1953	AMOC Silverstone [Relay]		Lotus Mark VI	Nigel Allen		1 st
29.8.1953	6 h Relay Silverstone [Handicap]		Lotus Mark VI	Nigel Allen		18 th
5.9.1953	Sunbac Silverstone [1172 Formula]+[750 Formula]	55	Lotus Mark VI	Nigel Allen		2 nd
12.9.1953	BARC Goodwood [S1.5]	29	Lotus Mark VI	Nigel Allen		4 th
19.9.1953	PMC Silverstone [S1.25]	48	Lotus Mark VI	Nigel Allen		2 nd
19.9.1953	PMC Silverstone [1172 Formula]+[750 Formula]	48	Lotus Mark VI	Nigel Allen		1 st
19.9.1953	PMC Silverstone [Motor Sport Handicap]	48	Lotus Mark VI	Nigel Allen		5 th

Year: 1954

Date	Race	No.	Car	Drivers	Entrant	Result
17.7.1954	British GP [S1.5]	10	Lotus Mark VIII	Nigel Allen	Team Lotus	raced
1.8.1954	Rheinland Nürburgring	33	Lotus Mark VIII	In entry list only	Lotus Racing Team	DNF
2.8.1954	Brands Hatch International [S1.5 Heat 1]	16	Lotus	Nigel Allen	Team Lotus	raced
14.8.1954	Snetterton International [S2.0]	16	Lotus Mark VIII	Nigel Allen	Team Lotus	? th
11.9.1954	Tourist Trophy	42	Lotus Mark VIII	Allen / Anthony	Lotus Engineering	DNF
9.10.1954	ECMC Snetterton [1.2]+[1.5]	59	Lotus	Nigel Allen		? th
26.12.1954	National Brands Hatch [1.5]	10	Lotus Mark VI	Nigel Allen		3 rd

Year: 1955

Date	Race	No.	Car	Drivers	Entrant	Result
11.4.1955	BRSCC Brands Hatch [S1.5]	28	Lotus	Nigel Allen		2 nd