

The **DRIVING MEMBER**

THE OFFICIAL JOURNAL OF THE DAIMLER & LANCHESTER OWNERS' CLUB



INCORPORATING THE LANCHESTER REGISTER AND IN ASSOCIATION WITH THE SP250 OWNERS' CLUB

VOLUME 45 NUMBER 10 APRIL 2009 PRICE £3.50 (+P&P) FREE TO MEMBERS

My Life At The Daimler Works

COLIN BROMFIELD

I was brought up at my parent's grocers shop about a mile from the Daimler factory in Radford, on leaving school everyone thought that I would go into the business, but I had other ideas as I could see the amount of hours needed in the shop. I had decided that I wanted to be an apprentice at the Daimler, prompted by the advertisements of the DE 36 St 8s in the Autocar. I left school in July 1947, aged 16. It was a very hot summer that year following the terrible winter. I applied to be an apprentice but there were no vacancies at that time. Whilst waiting, in September I started as an improver milling machine operative in No 14 machine shop. A vacancy for an apprentice came up in the following February, so I commenced my 5 year apprenticeship at a princely sum of 33 shillings per week.

I was indentured as an Automobile Engineer covering Machine Shops, Assembly, Drawing Office, Service Dept, and Experimental Dept. at Radford and Browns Lane Plants. This was to be for 5 years with a one day per week release to the Coventry Technical College to study O.N.C & H.N.C. The vehicles being manufactured were the bus chassis, Lanchester LD 10, DB 18, Special Sports, DE 36 chassis, DC 27 Ambulance and the Daimler Scout Armoured Car.

My time in the machine shops was spent mainly in the engine shop, machining engine and gearbox components for cars and the larger components for the bus diesel engine, this also included the engine test under Ted Perkins. On the assembly I only worked on the sub-assemblies. In the drawing office I was in the Fighting Vehicle Office, not on design but doing assembly drawings, I remember drawing the sub assembly of the planetary reduction gear in the hub of the Scout Car, the time spent there gave good draughting experience.

In July 1949 I passed my driving test in my Fathers 1934 Lanchester 10 so I was called upon occasionally to do driving jobs such as ferrying Consorts to Desford Airfield in Leicestershire for storage or driving between Radford and Browns Lane in the works taxi, a Daimler 15 estate car. The Service Dep't was located at Browns Lane and my time spent there was refurbishing engines, grinding in valves, scraping in bearings etc. I remember a Daimler 15 coming in which had a fluid flywheel that had exploded, the car had been touring Switzerland and the oil level



Experimental personnel about 1959.

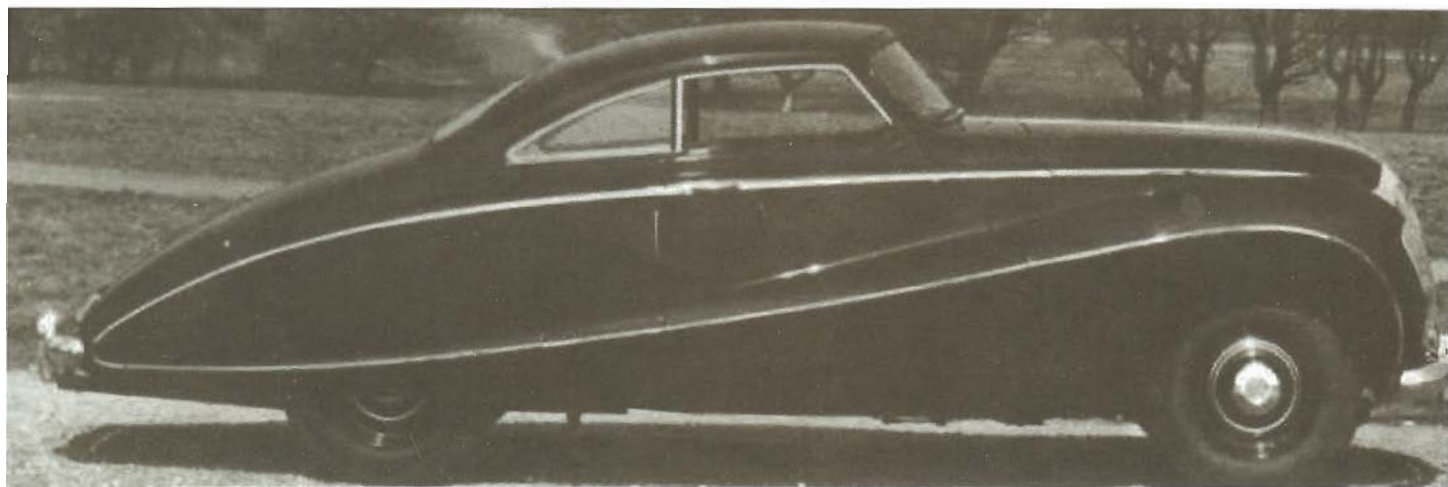
The three standing in 'white' overalls, are L-R: Sid Bowdler, myself and Bob Guilianotti.

must have leaked to the seal level resulting in too much air, climbing the passes caused extreme heat and the resulting expansion of the air caused the flywheel to burst, the outer casing bursting through the bell-housing and the floorboards. Looking into the car you could see the driven member of the flywheel, I cannot remember the fate of the occupants but I think there was a fatality.

The last year of my time was in the Experimental Dept. and I started there in early 1952. I remember being there when the King died. I was put under the wing of Bob Guilianotti who came from Scotland, he was one of the senior fitters and the foreman was Frank Walker. The first job I had was to accompany Bob to Hoopers in London and collect Lady Dockers 3 litre two-seater coupe in black, nicknamed the "Beetle" (pictured below). The object of the exercise was to improve the performance by boxing in the underside, tests were carried out at MIRA the proving ground near Nuneaton but at that time it was only an airfield with a control tower with timing straights, the banked circuit had not yet

been built. As I remember the under-tray made little difference. Jobs were always varied and unexpected with ad-hoc jobs cropping up. I remember mid-morning one day Frank the foreman came to us and said "Would you just nip down to Kingston-upon-Thames" the Chief Engineers' sisters' car was giving trouble and would we go and fix it, so off we went and found the address, the car, a Consort, was in the garage and all that was wrong was the ball joint had come off the carburettor. We fixed it and we were not invited in to wash our hands or given a cup of tea so we had to use the public toilets. On the way home it started to snow heavily and got worse, we arrived home about 10 o'clock!

Another big and interesting job was the conversion of the DE 36. There was trouble with the wings flapping when the chassis flexed, particularly on the "Gold Car", so a team of four, two fitters and two apprentices went to Hoopers in London to carry out the work. We would go down on Monday morning, returning on Friday afternoon, another apprentice ferried us down in the "Grey Lady" which was the works straight eight, it was grey because it was still painted in the grey primer and it used 20 gallons of fuel each way. The conversion consisted of removing the Girling piston shock absorbers and brackets, and the wing stays. Telescopic shock



Lady Dockers 3 litre two-seater coupe nicknamed the "Beetle"



DE36 'Gold Car', (now in the USA)

absorbers were fitted and the wing assembly was mounted under the radiator on a silentbloc mounting which meant that the chassis would be able to flex without moving the wings. It took a week to convert each car and it was hard-work hacksawing and chiselling the s/a brackets. We were there for four weeks staying at B & B's. We did the Gold Car first followed by the Royal Cars, and it cured the problem. The reason that the work was done at Hoopers was so that the body-makers could remove the wing assembly.

One job that I was asked to do was to drive to Darlington and back to hand deliver a bus contract to Darlington Council. The car I was given to use was a Lanchester 14. There were no motorways only the A1 and this was before the advent of screen-washers, I remember driving close behind lorries to get some spray on the screen as the roads were wet and not raining, I did it in the day though.

Another project that Bob and I did was to fit a 6 cylinder engine to a Lanchester 14, we managed to shoehorn it in by moving the radiator forward, the difference in smoothness between the two engines was remarkable and that gave the idea for the Conquest.

Early in 1953 I received my call up papers for National Service which had been delayed because of my apprenticeship. I finished my apprenticeship in February and joined the Royal Engineers doing my basic training at Norton Barracks, Worcester. I finished my training at Aldershot and was posted to Barton Stacey near Andover in Hampshire as a Vehicle Mechanic. Here I met my future wife Joy.

I was discharged from the Army in February 1955 and went to see Frank Walker in the Experimental Dept to ask for a job. My first job was to do a 1,000 hour test on the new 11.6 litre diesel engine which had been developed for the large earthmovers which the Daimler had developed. These were large 4 wheeled tractors with 7 foot diameter wheels, there was also a caterpillar version. This was an Army Contract and the 1,000 hour test was to satisfy the Ministry. First of all the engine was stripped down and all components measured. The engine was re-assembled and put on the test-bed, it was run between 6 am and 10 pm on two shifts, I



Lanchester 14

had the late shift from 2 pm to 10 pm and it went on for about 3 months, after which the engine was stripped again and measured. By now it was June, not February and because the ambient was much warmer some of the measurements had grown. After the test I was moved to the car side of the Dept. A few things had changed since I had been away 'On Her Majestys Service'. The Conquest, Leda, 3 litre Regency, Lanchester Sprite, DK 400 and the Daimler Armoured Car with the Rolls Royce engine had appeared, also the factory had changed, Browns Lane had gone to Jaguar and a new assembly shop had been built at Radford. The Experimental Dept. was divided into two parts, the car section on one side and the buses on the other side with engine test cell back in the middle. Being a fitter there you could be asked to do anything except body-work or electrical. This could range from machining, engine test, engine build and repair, chassis build, vehicle performance and endurance testing and on Friday afternoons, washing the Chief Engineers car, it was a pleasure to go to work because it could be something new every day. Models being developed were the Mark II Century and the Lanchester Sprite with the Hobbs automatic transmission (photo below left). Borg-Warner automatic gearboxes imported from the USA were being fitted to the Century's and Regency models. Frank Walker asked me to strip down an automatic gearbox and get to know it, so I became the automatic gearbox expert.

When the Mark II Century was introduced it was decided to fit bigger engine mounts and delete the torque reaction buffers, however when it was tested there was violent scuttle shake. This meant that the original engine mounts had to be refitted and to reinstate the rubber buffers. This caused a problem with the automatic version as the engine backplate did not incorporate the buffer plate like the pre-selector so a separate bolted on bracket was fitted. Nearly all Daimler models before the Majestic suffered with scuttle shake. I had the job of modifying a 3 1/2 litre Sportsman by fitting a sheet of steel over the bulkhead and mounting it on to the chassis. This cured the scuttle shake and this feature was incorporated on the Majestic bodies.



Lanchester Sprite, (recently advertised on e-bay)



Regency Sportsman

During 1956 not a great deal of exciting things happened, the Hobbs automatic gearbox was being developed for the Lanchester Sprite and the Regency 3 litre. One important thing that happened was my marriage to Joy in August. We are still together and still living in the same house. Towards the end of 1956 Bob Guillianotti was given a secret job, every day he left with his tools to a special place which had been erected inside the main assembly shop. He was very secretive and would not tell anybody what he was doing. It transpired eventually that he was dismantling a Triumph TR3 so that the parts could be copied in the drawing office, this was the birth of the SP 250 and the engine was being designed at the Triumph Motorcycle Works at Meriden. Edward Turner was the new MD of Daimler since the shake up of the Daimler Board when "The Dockers" lost control.

In 1957 it was rumoured that a new car was to be developed but it was not until parts started to appear in the stores that we realised that it was to be different. When the engine block appeared it became apparent that it was to have eight cylinders. Finally all the parts arrived and we began assembling the engine. Each part was examined and weighed and any assembly problems reported to the drawing office. The engine was completed in July and I was asked if I would postpone my annual holiday and go in and run the test-bed. At that time the whole of the factory would shut down for a fortnight so I was the first person to run the new V8 engine. After running-in the full power test gave 140 bhp straight off and this was with the Solex-Zenith carburettors. It transpired that Solex were not able to supply production quantities so SU semi-downdraught carburettors were incorporated. Most people know that the engine was based on the Triumph motorcycle engine, various configurations were tried including fitting 8 Amal carburettors, one bolted to each cylinder with a very complicated throttle mechanism. Another time a special camshaft made to the same profile as the Triumph Bonneville World record breaking machine. Below 3,000 rpm the engine was spitting back through the carburettors and was still pulling power in excess of 8,000 rpm but we were advised to stop as the crankshaft was in distress due to the torsional vibrations. Neither applications were practical so not pursued.

The engine preceded the chassis, so in order to road test the engine one was fitted to a Century car which was WHA 606, this was an old rally car which was driven by Ken Wharton. The engine was married to an automatic gearbox and I was asked to take the car for Edward Turner to test. I took it to Meriden and Mr Turner took one look at it and said "it is not possible to evaluate an engine with an automatic gearbox" so I took the car back. When I told Frank Walker he told me to get on and fit a manual box which I did, this was an Austin Healey 3000 4 speed gearbox as the Daimler had not yet produced their own manual box. Things were a little slow as no chassis were available yet. We did fit a V8 engine to a Vauxhall Cresta PA (next page top left) in preparation for the proposed DN 250 saloon, this was to be a 4 door saloon based on the Vauxhall Cresta PA and using the Vauxhall body parts.

Early in 1958 chassis were becoming available and these resembled the Triumph TR 3 but lengthened by 4 inches. On one chassis Bob and I fitted a plywood shell which was used to test Daimler chassis before bodies were mounted. This had two seats with a windscreen and two doors with the engine compartment open to the elements. Bob and I were the first people to drive the first SP 250. Eventually two bodies were made, the

black car in fibreglass and the red car in steel by Carbodies. The black car WDU 654 was a two-seater with two doors and no windows just sidescreens. The black car was to be subjected to a 50,000 mile 'Type test' covering 600 miles a day. During the daytime the car was driven from Coventry up the A5 to Shrewsbury then branching off to Welshpool and on to Dinas-Mawddwy then turning off the main road over the Bylch-y-Groes pass to Bala Lake. The pass was very steep and narrow and driven at full speed with the apprentice noting gear changes, oil and water temperatures. We rejoined the A5 and



COLIN BROMFIELD

returned via Llangollen, Shrewsbury back to Coventry, a total round trip of 250 miles. Apart from the Shrewsbury by-pass all roads were single carriageway but no speed limits apart from villages, here it was important to observe the limit as going through every day you would have been caught.

On returning to the works about 4.30 the car was refuelled and another crew took the car overnight down to Devon climbing Porlock Hill, Countisbury Hill finishing at Lynmouth and returning home, this was a 350 mile trip making the 600 miles a day. Then the next day, the day shift took over and so it went on. I never drove the night shift but did most of the day shifts. There was very little trouble but the cars had the Austin-Healey gearbox and Dunlop disc brakes.

The brakes were early versions and there was a mechanism to withdraw the pads from the discs, this made the brake pedal have a long initial travel and needed pumping. Production commenced with Girling brakes however.

The second car, the red one, with a steel body made at Carbodies, (photo next page lower right), was carrying out high speed continuous running at MIRA high speed banked track to test the durability of the valves. This was being driven by Sid Bowdler, another fitter. It is not known what happened but the car spun and went backwards up the banking taking out 13 posts at the top of the banking but was restrained by the wires. The nearside of the car was ripped out but fortunately the apprentice (Dicky Stewart) was thrown out of the car when the car spun, so no one was injured. This was the first major accident at MIRA as the high speed circuit had not long been opened.

Speaking of apprentices there were many that passed through the Experimental Dept. The ones that I can remember are: John Box, the Jowett aficionado, who owned a Bradford Van, John Wheeler who used to chase the Chief Engineer's secretary! Neil Evans, David Hobbs, son of the Hobbs Gearbox designer who went on to be a racing driver, Roger Garnett, John Marsh, Neil Evans, Sid Hartsilver, Eric Dowdall, Terry Howlett, and Dave Gleed.

Testing of the SP 250 prototypes continued throughout 1958 with various changes being made, namely longer front suspension springs, wider main bearings, modification to the balance of the engine. There was high frequency vibrations on the engine and Dr Tait went away and recalculated all the rotating masses and came up with a solution to cut so many ounces off the front damper and add some extra weight to one of the clutch bolts, this cured the problem and Dr Tait was widely praised for his solution, bearing in mind that there were no computers then and all the calculations were long hand. A great deal of development was put into the manual gearbox as this was a new departure for Daimler, getting the angles right on the synchromesh cones proving difficult.

Another model that was being transformed was the 3 1/2 litre Regency, this was made as the Ladies Model and then, with about 1 cwt of plasticine on the side was remodelled as the Majestic. One problem was with the 4 1/2 litre Sportsman, it was found out that the extra power of the engine was causing the fluid flywheels to over-heat, so they were recalled and the engines were changed back to 3 1/2 litres and rear axle ratios were changed in the Experimental Dept initially and then continued in the Service Dept, not all cars were done so one or two cars escaped!

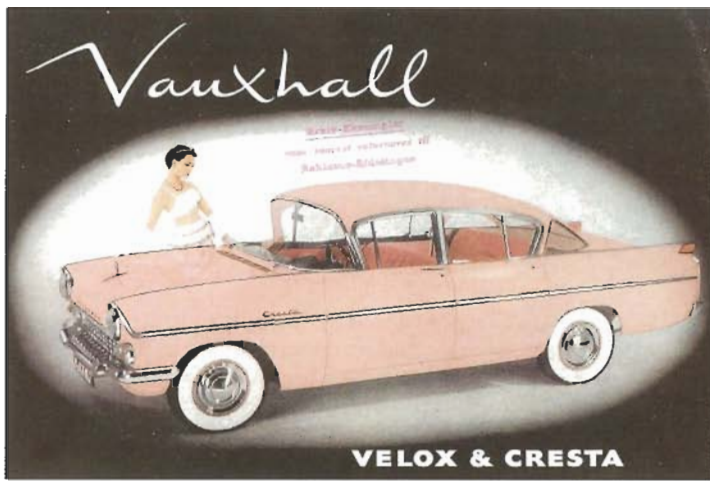
Later that year a new engine was emerging which was the 4 1/2 litre V8, I helped to build the first engine and carried out the first engine test and most of the development testing. This included sorting out the air cleaner,

the original one was noisy, so I spent a lot of time making and testing various configurations of the twin inlets to maintain the power and keep it quiet. I arrived at the present version which has the twin inlets on each side. This engine gave more torque than any other production engine at the time and Borg-Warner had one installed on a test bed at Letchworth to test their automatic gearboxes.

Another test which I had to carry out on the test bed was to do a full throttle power curve test on the engine with open exhaust pipes, the exhaust manifold was reversed so that the exhaust



Colin's current Daimler

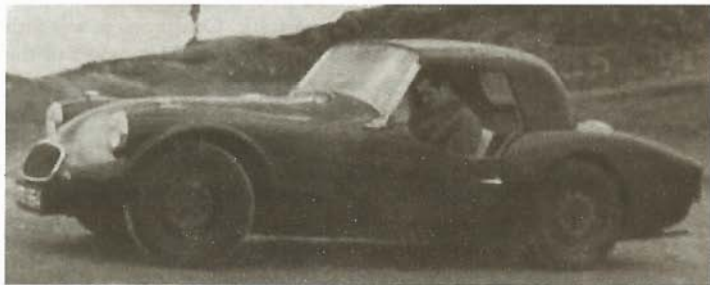


Vauxhall Cresta PA. One of these was fitted with a Daimler V8 engine and road tested

was blowing out into the workshop. As this was going to be very noisy I was to do the test at about 6 pm when everyone had gone home. I did the test and I was the only person there. I completed the test and shut the engine down and went home. I found that I had great difficulty walking up the slope to the gatehouse and I realised that I was suffering from carbon monoxide poisoning, Health and Safety was not around in those days otherwise I would not have been left to do the test on my own, but I did survive.

Early in 1959 I was asked if I would like to go to America and accompany George Fabel on his proposed sales tour across the USA with an SP 250 after the New York Show, to help with the driving and the maintenance. This would have been for about 3 months so obviously Joy was none too pleased. However the trip did not materialise for me as it was decided that the Company could not afford it and would be done by American personnel. After that I never got excited about going abroad until I was either on the plane or the boat. Although I did not go abroad for Daimler I did in my subsequent employment. I went on 25 overseas trips visiting 13 countries and flying on 19 different aircraft with visits varying from one to eight weeks, covering Australia, India, USA, Canada and the whole of Europe, so I consider myself fortunate.

In November 1959 Frank Walker asked me to go to see the Sales Manager at Browns Lane. Here I was told that the SP250 Press Car had broken its rear axle whilst being tested by a journalist at Bicester Aerodrome. "Would I go down and repair it and then deliver the car to his flat in London?" I took an apprentice and a Majestic with a new axle for the SP and proceeded to Bicester arriving mid afternoon, we changed the axle in the SP and the drove the two cars to an address in South Kensington, arriving about 8pm. The journalist gave us a meal then very thick fog came down. The M1 motorway had only just been opened so



Roger Garnett taking notes in the black car, on test in Wales



SP250 prototype (black car)



SP250 Chassis was based upon the Triumph TR3, seen here in LHD, the car was a huge success in the USA.

We then drove back home in thick fog for the first time on the M1, the fog cleared about half way and we arrived home about 11pm. In 1960, the main project this year was the Fleetline Bus, a rear engined bus based on the Leyland Atlantean. I did quite a lot of work on this including building the show chassis during the summer holidays (it was quite common to be asked to postpone your holidays). The chassis was built in preparation for the Commercial Show and all the bolts and fittings were chrome plated, tightening them up with cushioned spanners to prevent damage.

This year we noticed a white haired gentleman walking round the plant, this was of course Sir William Lyons and it became evident that Jaguar was interested in taking Daimler over. It soon became evident what it would be like under the new regime. Superintendents and Foremen in the machine shops were told that Jaguar personnel would be taking over and they would have to either go back on the machines or leave.

I started to look for another job and got one in Coventry at Auto Transmissions. My leaving date was January 26th 1961. This date was the official takeover date for Jaguar to take control. On that day it was announced that all the Experimental fitters were to receive a £5 a week rise in pay, I began to wonder if I had done the right thing but I stuck to my guns, after 13 years with the Daimler I left and it turned out to be the right decision.

Auto Transmissions was taken over in 1968 and closed, so I left and started at the Rover and was there for 20 years until I finally retired in 1988. I have always had an affinity with Daimler and in 1964 bought a Consort. I had heard of the Daimler & Lanchester Owners Club and went to one of their meetings one June Saturday afternoon at Stone, Staffs., along with my brother Graham where we met Duncan Saunders. We joined the club and soon became Committee members, I was the Clubs technical adviser for many years and then became Chairman and then Vice-President until the position was dissolved when the Club became a Company.

I hope this is of interest, I was involved with the motor industry during its Golden Years and feel very fortunate to be a part of it. Some of the dates may be inaccurate but it was all down to my memory.

Colin Bromfield
38 Clayton Road,
Coventry CV6 1FE
Tel: 02476 596072 e.mail colin.bromfield@talktalk.net



SP250 prototype (red car)