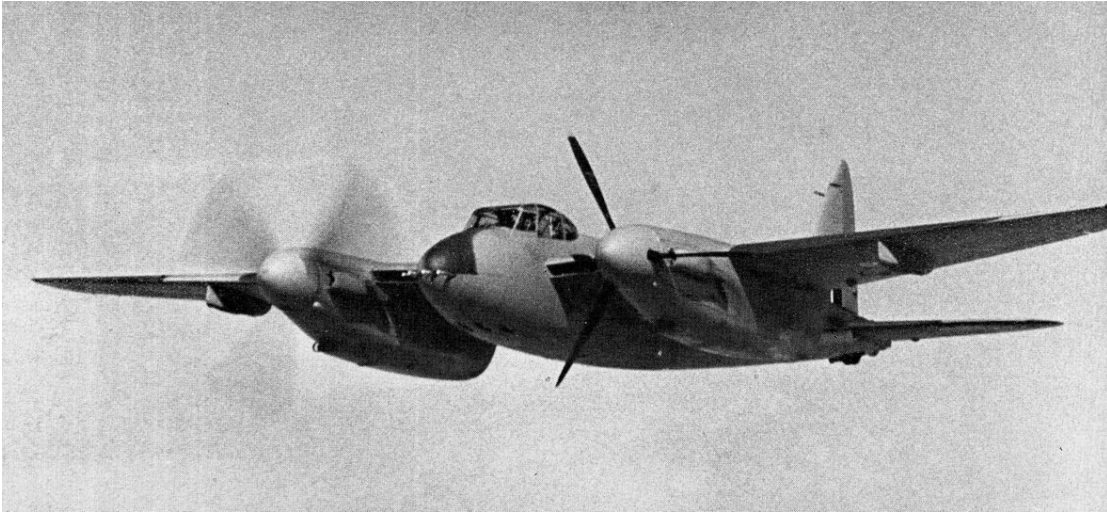


Walter Lawrence - a history (2)



The de Havilland Mosquito

This is the second article on the Walter Lawrence Company.

The Second World War broke out on 3-4 September 1939 and the period from then until May 1940, when Germany invaded Belgium, the Netherlands and France, is often referred to as the 'phoney war'. Knowing Sir Walter's business sense, and with the economy on a war footing, he must have looked for opportunities that situation would bring. To put it positively: he must have approached his many contacts and told them he was putting his company at the service of King and country. The Walter Lawrence Company had in fact already formed an aircraft division in 1938. How far that division was actually operative when war broke out is unclear.



The Airspeed Oxford AS10

The idea of a WL aircraft division was in fact not that strange. It is possible (but I have no proof) that it came about because of a personal relationship between Sir Walter Lawrence and the aircraft pioneer Geoffrey de Havilland (1882-1965). de Havilland hailed from High Wycombe, a centre of furniture making and in the 1930s most aircraft were still made of wood. Combine that with Walter Lawrence's expertise in joinery, wood-based interiors plus contacts with government and the idea of a Walter Lawrence aircraft division does not seem far-fetched.

The first aircraft project for the Walter Lawrence Company was the Airspeed Oxford. The Airspeed company was based in Portsmouth. The Oxford was a twin-engine monoplane. It saw widespread use for training air crews in navigation, radio operation, bombing and gunnery throughout the Second World War and first flew in June 1937. As a designer, de Havilland had been involved in an earlier, project, the Airco Oxford, which never came off the drawing board. By 1940 the Airspeed Company had been acquired by the de Havilland Company. Walter Lawrence's involvement must therefore have started around that same time. Ultimately some 1,000 Oxford fuselages were built at Sawbridgeworth. By that time Sir Walter's son Guy had taken over at the head of the company. Soon another opportunity came his way: the Mosquito project.

Despite searches at HALS, the Essex Record Office, the de Havilland Museum and the Imperial War Museum, I was unable to find documentary evidence of contracts and/or correspondence between de Havilland and Walter Lawrence, which must have been an important, if not the most important, UK sub-contractor for the Mosquito project. Work on the Airspeed Oxford must have started in late 1939; and work on the Mosquito in late 1940 or early 1941. What we do know from documentary and photographic evidence and from personal recollections is that many dozens, if not hundreds, of local people worked on the Mosquitos at the Sawbridgeworth factory.

The de Havilland DH.98 Mosquito was a twin-engine multi-role combat aircraft, unusual in that its frame was constructed mostly of wood. Nicknamed the 'Wooden Wonder' or 'Mozzie', it was the brainchild of Geoffrey de Havilland, who had some trouble getting his concept accepted. Construction of the prototype began in March 1940, but work was cancelled after the debacle of Dunkirk, when it was decided to stop development; the design team were even denied materials for building the prototype! However, priority was ultimately given to the project and the first Mosquito took off from Hatfield on 25 November 1940.

What won the argument for the wooden 'Mozzie', at a time when people already thought metal aircraft were the future, was Geoffrey de Havilland's expectation of a wartime shortage of aluminium and steel, whilst wood-based products would remain available. Although inferior to metal in tension, the strength-to-weight ratio of wood is equal to, if not better than light alloys or steel. So the Mosquito was built with balsa wood sandwiched between two plywood layers bent around a mahogany mould in two halves. Before those two halves were joined together some of the internal equipment was installed, thus saving in assembly time at the Hatfield de Havilland headquarters. This can be seen on one of the pictures below. Those interested in how this all worked can also look at a YouTube video, which shows the assembly process as it took place in Canada, but the process was of course the same.



Phyllis Mingay (on the right) and her colleagues at work at Walter Lawrence.

Link to previous text? Phyllis Sweet was born in Epping in 1924, the daughter of Frederick William Mingay and his wife Emily Alice. Frederick was landlord of the 'Greyhound' pub in Spellbrook from 1926 until 1963. After school Phyllis initially worked at Woolworths as a supervisor but in 1943, at the age of 19, when she was obliged to do war work, a friend of the family suggested she applied for a job at Walter Lawrence's. She worked there from 1943 until 1946 under a Mr. Kirby, who was head of the joinery section. Other bosses were Phil Pyle and a Mr. Felstead. Memorable colleagues were Johnny Brown and Stan Revell whom she nicknamed 'little old dear'. Phyllis' brother Jack also worked at Lawrence's. Phyllis was employed both to apply glue to the fuselage skins in the jigs and to install wiring, etc. inside it. One problem with working at the fuselages was the ubiquitous casein glue which had to be used. Phyllis's boiler-suit overalls were impregnated with the stuff, so much so in fact that they could stand up on their own! The photograph above shows her on the right performing this task with her friend Nellie Mascall on the left. The girls at the back were put in the photographs 'for decorative purposes', as the teams usually included two men and two women. In 1946, whilst still working there, she met her husband Dick, who had been in the Royal Engineers during the war. Later that year Phyllis returned to work at Woolworths, this time as a receiving clerk.

Dick Sweet did in fact work for Lawrence's in 1939 for five days, just prior to war breaking out. Fred Trundell gave him a job working on the building site for the Stansted army camp, which meant he was ultimately employed by Walter Lawrence. 'I was as happy as Larry landing that job as they paid me union rates, a shilling six and a halfpenny an hour' he recalls.

Another person who worked at Lawrence's was Kenneth Cook, now passed away, who later wrote the *Herts & Essex Observer's* popular 'Sawbridgeworth Diary'. In 1993 he described his work there at the time of the Airspeed Oxford fuselages. 'My contribution was to provide the tacking strips, long pieces of thin rough timber, in which I had to tap in long thin panel pins three abreast about two inches apart. When the cabin skin was placed in position my tacking strips were put at strategic points and nailed down to hold the sides of the glued members. When the glue had set the tacking strips were then prised off.' Ken also worked as a tea boy and eventually in the stores.

There is evidence of an attack with incendiary bombs on the Station Road area, some of which fell on the Walter Lawrence factory. The testimony of John Wright, born in 1935, whose father was a long-time fire brigade member, and whose grandfather worked at Lawrence's, verifies this. John first of all recalls a German reconnaissance plane flying over quite low. They could see the swastika painted on it! "Within a week or two, on 19 April 1941, the works were pelted with incendiary bombs and the part next to the river – which was of wooden construction - was burnt out. Ninety percent of the aircraft division was destroyed. Due to the effort of the joinery division the factory was rebuilt and in just over six weeks from the time of action a Mosquito fuselage was on its way to Hatfield. Many who worked in the aircraft division lost their precious tools."

John Wright's grandad lived only a few hundred yards from the works, in Sheering Mill Road. "He was fortunate in two respects, firstly the part of the works that he worked in escaped damage and he was able to recover his tools and secondly, the house that he and his family lived in was also undamaged. However, several of the houses in the 'block' and in the road did receive stray incendiaries but were dealt with successfully and little damage occurred. It is the only time in my life that I really saw and experienced my mother being very very upset. From our house we overlooked the Joinery Works and on the night of the attack all we could see was a wall of fire. Knowing that my Grandparents house was only just beyond the works it looked as though they too were on fire!"



Left to right - Mosquito fuselages at Walter Lawrence – An Aerial photograph of the Walter Lawrence

As the boundary of Hertfordshire and Essex is the river Stort and the joinery works were in Essex, the 'rules of engagement' for fire brigades meant that the Sawbridgeworth brigade were not allowed to attend, much to the chagrin of Herts Fire Brigade volunteers actually working at Lawrence's. It also meant that the only documentary evidence of the raid taking place on the evening of 19 April 1941 was at the Essex Record Office. 'Fire at Lawrence's Joinery Works Sheering, fire under control, no casualties' it says on a form there which also mentioned that things were under control by 05.30 on the morning of 20th April. Meanwhile, Hertfordshire bomb damage reports show heavy incendiary bomb attacks directed at the Herts and Essex borderlands. Barry Pyle, who in the 1960s did his apprenticeship at Lawrence's speaks of twisted trusses in the roof of the joiners shop still evident then.

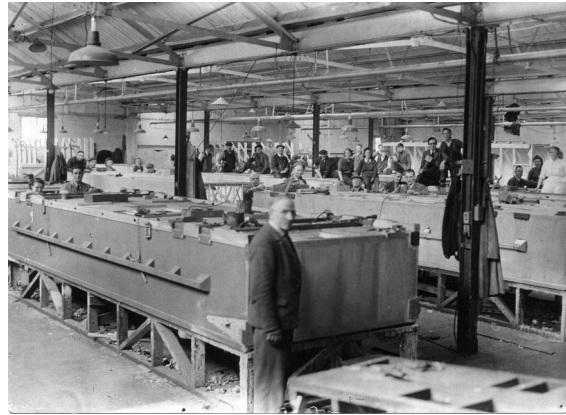
John Wright's account also mentioned witnessing the damage when going on walks on the riverside. Elsewhere he describes the work at the Lawrence factory in 1943-1944, when production was at its peak and many women were employed there. He tells us that 'The fuselages were built on plywood jigs, very intricate 'moulds' on which they were assembled.' These jigs were also manufactured on site by specialist joiners.

The number of Mosquitos built worldwide stands at 7,781, 6,500 in this country, many, perhaps most, with input from Walter Lawrence. The aircraft was used by the RAF, the Australian Air Force, the Canadian Air Force and the US Air Force. Because of that it was also built abroad under licence. In 1941 it was one of the fastest operational aircraft in the world. It performed many roles: as a low-to-medium-altitude daytime tactical bomber, a fighter bomber, a maritime strike aircraft and a photo reconnaissance aircraft. BOAC used it for fast transport to carry small, high-value cargoes to and from neutral countries through enemy-controlled airspace. The crew of two, pilot and navigator, sat side-by-side. A single passenger could ride in the aircraft's bomb bay when necessary.



The 1000th Mosquito fuselage leaving the Walter Lawrence works

As for the tasks it performed, there were special raids, such as Operation Jericho, an attack on Amiens Prison in early 1944, and precision attacks against military intelligence, security and police facilities, such as Gestapo headquarters. In 1943, on the 10th anniversary of the Nazis coming to power, a morning Mosquito attack knocked out the main Berlin broadcasting station while Hermann Goering was speaking, putting his speech off the air.



Left to right; local girls on their way to Walter Lawrence's; pontoon bridges being built

Locally, Mosquitos were based at the Hunsdon aerodrome, which was used by both the RAF and the Canadian Air Force. On 26 November 1943 one of those planes crashed into the front garden of a cottage in Broadley Common, Harlow. The plane was piloted by Flight Officer John Blanchfield, aged 26 at the time and his navigator, Kenneth Cox. Blanchfield and Cox, both serving with the Canadian Air Force, were killed instantly. The plane's fuselage and two Merlin engines came down in front of the cottage but the tail broke off, struck the roof and set fire to the thatch. The occupants escaped unharmed. But damage to the house and the road was so bad that the area had to be sealed off for several days. Another Mosquito came down in Little Hallingbury on 29 June 1944. Pilot Officer Gerry Vautour and Warrant Officer Wally Mitchell were returning from the beachhead in Normandy when they came down in low clouds. They hit a powerline, a haystack, another powerline and crashed. Both crew members perished. Seventy-five years later a monument was erected in their memory with a nephew and a niece of Gerry Vautour coming over from Canada for the occasion. This mainly came about through the efforts of Denis Sharp, Jim Cosgrove and their Hertfordshire Airfields Memorial Group. There is a YouTube video of this on the Little Hallingbury Facebook page.

Apart from building Mosquitos, the Walter Lawrence works were also involved in building pontoons, Bailey bridges and the 'Mulberry artificial harbours' used by the Allies during the Normandy invasion. By 1945 the Sawbridgeworth works was almost totally devoted to war-related work. Its geographic location, near to the railways and the river and not too far from the de Havilland factory in Hatfield, was ideal. Much of the other work was transferred to other sites.

In late 2018 Phyllis and Dick Sweet were interviewed for *Mossie Bites*, the quarterly journal of the People's Mosquito Club, a magazine for Mosquito enthusiasts. The resulting article, co-written by Jon Gregory and Stewart Charman, was eventually published in April 2019. We have republished it on the Sawbridgeworth Local History Society website (www.sbwhistory.com) with that charity's permission. Find out more about plans to return a de Havilland Mosquito to UK skies at www.peoplesmosquito.org.uk

To be continued.

Sources for this article

Stewart Charman and Jon Gregory of the People's Mosquito Club, Kenneth Cook of the 'Sawbridgeworth Diary' in the *Herts and Essex Observer*, Stephen Hyam, Barry Lawrence and the Photos of Harlow Old and New' Facebook page, Susan Meyer, Barry Pyle, Janet Search, John, Phyllis and Dick Sweet, Eric Willison, John F. Wright, the Wally Wright photo archive, the 1971 Walter Lawrence centenary book, HALS, the Essex Record Office, Wikipedia, www.ancestry.co.uk and YouTube.