

British Aircraft **Swallow**

*‘The safest plane
in the world’*



*Or so the manufacturer of the BA Swallow 2 claimed –
and **David Ogilvy** says they weren't far wrong*

Before World War 2, several light aircraft types which had origins in other countries were built in the UK. Among these were the BA Swallow, a direct descendant of the Klemm L25 which had first flown in Germany as early as 1927.

It was the popularity of the L25 as an import that led to the formation of the British Klemm Aeroplane Co Ltd., which set up a factory at Hanworth (London Air Park) in 1932. In those days the training for a Pilot's A

Licence (predecessor of today's PPL) was minimal, calling for only three hours solo, a simple flying test observed from the ground and no requirement for any navigational experience. Not surprisingly, there were numerous accidents. One of the reasons for the Klemm's appeal was its ability to fly very slowly in safety, and this quality was maintained on its British successor. Although both had their shares of mishaps, it was common practice for occupants of either of

these machines to walk away unscathed from their bruised and bent mounts. Initially the machines off the UK line were known as British Klemm Swallow 1s, the first few of

Above: Pobjoy Cataract engined Swallow 2 leads a Cirrus Minor powered version
Below: a British Klemm Swallow 1 powered by a Salmson radial



which were powered by Salmson radials of only 75hp. Before long, though, with the formation of British Aircraft Manufacturing Co Ltd., the design underwent minor modifications to increase the overall strength of the airframe and with some squaring off to ease production. The result was the BA Swallow 2, initially using the 90hp Pobjoy Cataract radial, but later produced with a purchaser's choice of that or the more conventional 90hp Cirrus Minor 4-cylinder in-line. Despite the change of power unit, the mark number remained the same: both were known as Swallow 2s. Total UK production amounted to 135 aircraft, comprising 28 Mark 1s and 107 2s, the latter divided into 60 with Cataracts and 47 with Cirrus engines.

So, what was this intriguing aeroplane all about? Although light, it was not small, with an unusually large span of 42 feet (more than a Hurricane!). Although the wings could fold, the extra space needed for short-term hangarage, parking or ground manoeuvring was an inconvenience that seemed to be little if any deterrent to sales. The slow flying qualities and relative cockpit comfort enabled the type to hold its head high. The makers claimed that it was the safest aeroplane in the world; the high aspect ratio wing and a loading of just under 7 lbs per square foot (an area of 215 sq ft and a maximum weight of 1500 lbs) enabled one to be soared - engine off - for 20 minutes over Dunstable!

The Swallow was not an aeroplane intended to achieve world records. It was essentially a private owner or club machine and in these roles it performed well. Despite that, when, due to the threat of war, the pressure to train more Service pilots peaked in 1938, 15 Cirrus Swallows (still civil registered) went to No.4 Elementary and Reserve Flying Training School at Brough, then operated by Blackburn Aircraft Ltd., whose own B2s formed much of the training fleet there. Today, Brough remains alive, but when the last BAe Hawks have been completed, not only will the site close but this



Photos mostly via Phillip Jarrett

will mark the end of series production of aeroplanes (civil or military) in Britain.

Other Swallows returned to their point of origin at Hanworth, where they were used by the Civil Air Guard. This was a short-lived organisation that enabled suitable people to learn to fly at rates subsidised by the Government, with the aim of building a cadre of partly trained pilots who, when needed, would be absorbed into the RAF for more advanced training.

On the eventual outbreak of war, not many Swallows were impressed into active military service, but a few, including G-AFCB which became BK 575 and operated from Ringway (now Manchester Airport) and G-AFGD, recruited as BK 897, appropriately was converted to a glider for trials at Farnborough. Others were distributed to Air Training Corps units as ground instructional airframes. At least one, though, flew throughout the war, camouflaged, yet retaining its civil registration



Top right: Swallow 2 had a 42-foot wingspan but the wings could be folded

Right: Cirrus-powered BA Swallow 2

Below: the front cockpit of the Klemm L25 was roomy enough for two people





of G-AEZM and used as a hack by Airspeed test pilot George Errington.

As many as 37 examples (some of which had been stored through hostilities) survived the war of which 17 flew again when civil flying was allowed to restart. Of these, only four remain today but, perhaps surprisingly, two early Klemm L25s - one built in Germany and one in England - are on the current UK register.

I had the good fortune to fly both versions of the Swallow 2. My first experience was on the Cirrus variant - G-AEMW - from Elstree in

1960 and, several years later, in Cataract-powered G-AFCL from the more appropriate grass of Old Warden. By the standards of their time, the tandem cockpits were relatively spacious, while the internal layout was pleasantly simple. I was slightly surprised to find minor differences in internal content and layout, but whether this was from the build stage or as a result of later modification, I am not sure. In both cases the equipment was adequate for the intended purpose, which was essentially visual flight. The three most important dials - offering airspeed, oil pressure

and height - were present on both machines. Predictably, the last of these was of the old non-sensitive type, with its single pointer moving less than an inch for each thousand feet of change.

The overall view is not at all bad. Taxying is an easier exercise than on many machines of the era and only the relatively large wingspan gives cause for extra caution. Although all aero engines of the time refuse to tolerate coarse handling, the Pobjoy calls for additional care as it is a high-revving unit with reduction gearing, so small throttle movement gives very



**Above: the author flew the Cataract-powered CL from Old Warden in the 1960s
Left and below: despite the different engines, both aircraft were designated the Swallow 2**

big changes in engine rpm.

Take-off acceleration is not impressive, but the low wing loading carries the Swallow into the air quickly at an airspeed below the minimum reading on the dial. The well-proportioned rudder is effective throughout and the subsequent climb is recorded in textbooks as a very creditable 800 feet per minute, which is ahead of most machines of the era. From respect for the ages of the engines, though, I followed customary practice of not putting them to unnecessary tests at full power.

The 'feel' (not the handling) of the Cataract and Cirrus engined Swallow is very different and, as one who enjoys the vintage aspects of any relevant aeroplane, I preferred the one with the exposed, uncowled radial, which helped to provide a seemingly unique quality of flight. Also, 'EMW was the only Swallow ever to have an enclosed cockpit, so again, for me, 'FCL had an advantage! Resulting performance, though, is broadly identical, with published cruise and maximum figures of 98 and 112 mph respectively. In each case I found the first of these to be a slightly unjustified claim, but I had no figures for position error correction and, whatever the result should have been, the percentage shortfall was minimal. Very short bursts at full throttle (with almost 1000 rpm difference between the outputs of the two units) gave the impression that the published figure might be achieved.

When moving to the low end of the speed



general impression is that this machine is very unlikely to bite the unwary. That feeling extends to the approach and landing, where a very smooth three-pointer can be made with one of those satisfying chunks at the point of touch-down. Even with the tail on the floor, the rudder remains acceptably responsive and copes admirably on a normal (for its time) landing into wind. I would not be happy, though, to try a tail-downer in more than the most modest of crosswinds.

The Swallow is a likeable, docile piece of vintage machinery, but within months of its first flight the makers ventured into something more ambitious: the BA Eagle. This was a very smooth cabin monoplane with side-by-side seating for two and with a manually retractable undercarriage. Powered by the ubiquitous Gipsy Major 1 of 130 hp this very clean

Left and below: British Klemm Bk.1 Eagle, pictured here in 1934, was an ambitious development with a retractable undercarriage, but no example survives



scale on a strange type one must be ready for almost anything. Perhaps I had been spoilt, though, for receiving prior advice that I would find this to be a very tame aeroplane. How true this was. Speed took its time to decay and the stall was reluctant to make itself felt. When eventually (below the minimum ASI reading) the nose went down, it did so in a genteel manner and the wings remained level, immediately bringing back to mind the maker's safety claim. The only feature that I remember specifically is the slightly unnerving feeling on Cataract-equipped G-AFCL: when fully

throttled back and at very low airspeed, the reduction gearing between engine and propeller gives the impression that the latter is about to stop. Although this applies to all Pobjoy-powered aircraft, at no time have I felt fully relaxed at that critical moment.

Back in normal cruising flight, the Swallow is peaceful and pleasant, but with no outstanding characteristics. Not surprisingly, with its large span, the ailerons are relatively heavy and the response unsportingly slow (a setback in bumpy conditions) so, although all aeroplanes must be treated seriously, the

machine romped along with a published cruise of 130 mph and a maximum of 18 more. 43 were built and some were regular air race participants; although most were impressed into military service, the modern undercarriage caused the design's collapse in more than one sense and no Eagle survived the war in airworthy health. Eventually one re-emerged for a while, but no specimen exists today on the UK register. Fortunately, though, its more genteel predecessor has managed to last longer and the unmistakable whine of a Pobjoy-powered Swallow remains with us. ■

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