



THE RATCLIFFE SPITFIRE P9503

Supported by The Leonard Stillwell Bursary and The Spitfire Society
THE WORLD'S ONLY SPITFIRE BUILT BY STUDENTS

April 2017

Dominic JH Berry

www.ratcliffespitfire.com

13

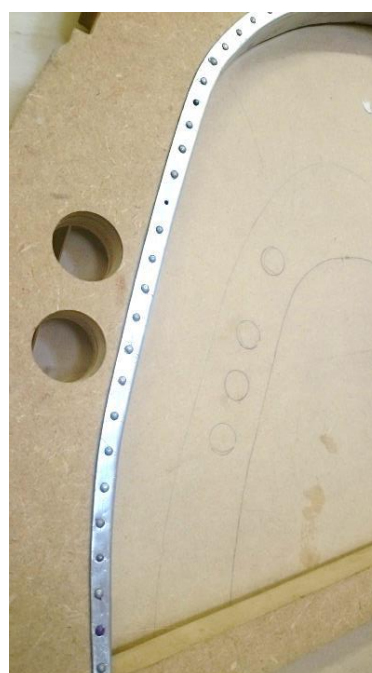


You must forgive the lack of a Spring newsletter this year; we are making steady progress on the build, but the Spring term is always a rather hectic one in terms of fitting everything in, what with coursework deadlines and exams looming, and this year seemed to be particularly busy. As it was, we only managed to have 6 spring meetings, but this Summer term we are looking at a few more so by the end of the academic year I should be able to report on significant, if not major progress.

The Build



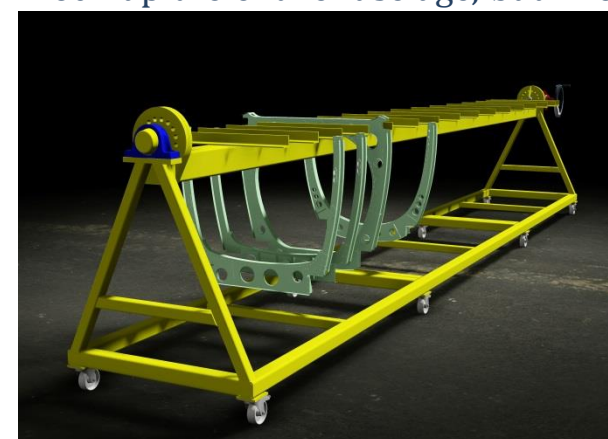
Ignoring the few bits of steel, and the fewer pieces of wood, Spitfires were essentially made from aluminium, with the frames, ribs, structural components and skin all of that material. There were a number of large steel bolts used for things like the wing attachment bolts, but the majority of the aircraft gained its strength from the tens of thousands of solid rivets that joined the pieces together. In the late 1930's, until the end of Spitfire production over 20,000 aircraft later in 1948, each aircraft was a unique build, hand built by craftsmen and women. This allows us a *certain* degree of flexibility in our construction, and in particular the positioning of the many rivets that we have begun to 'apply'. I say 'apply' because most of the rivets



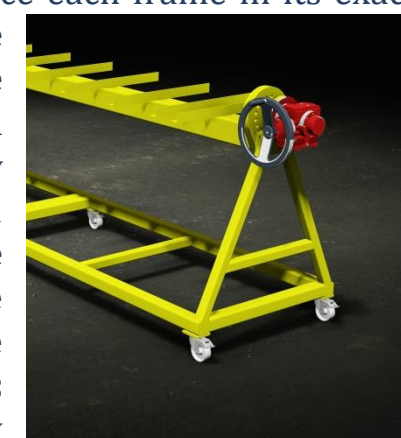
particular the positioning of the many rivets that we have begun to 'apply'. I say 'apply' because most of the rivets

that we will use will be for aesthetic purposes only. One of the exceptions to this rule is where the fin post meets the fin skin as can be seen in the picture at the start of this section, where the students have been learning the mysterious art of solid riveting. They are cross-referencing blueprints and Paul Mortforton's excellent book, Spitfire Mk IX - XVI Engineered, to position the rivet lines correctly, as well as choosing the right size and type of rivets to place, with the correct spacing. This takes some time as you can imagine, so whilst 'big' changes may not be obvious, look a little closer and you will notice work going on.

When all of the frames are completed, which will include the routing of each lightening hole to give the impression of pressed aluminium holes, we will be able to mock-up the entire fuselage, but in order to do that we will need some way to hold them in place. Step in Paul McVittie and CAD Works Engineering Ltd in Carlisle once again, who have been working closely with me over the past few months to design a bespoke fuselage jig. Once we have this, we will be able to place each frame in its exact position relative to the fuselage datum line, and this will very quickly take on the line of this beautiful fighter. This will just be a temporary measure though, as the entire assembly is far too large to be accommodated within the Art Department permanently. However, it will be a huge leap forward for the project, and with our current efforts to secure funding for the Spitfire Education Centre, may



them in place. Step in Paul McVittie and CAD Works Engineering Ltd in Carlisle once again, who have been working closely with me over the past few months to design a bespoke fuselage jig. Once we have this, we will be able to place each frame in its exact position relative to the fuselage datum line, and this will very quickly take on the line of this beautiful fighter. This will just be a temporary measure though, as the entire assembly is far too large to be accommodated within the Art Department permanently. However, it will be a huge leap forward for the project, and with our current efforts to secure funding for the Spitfire Education Centre, may



help that process along too. With this in mind, we would greatly appreciate any support you may wish to give to the project. For online donations you can access our JustGiving page at: <https://www.justgiving.com/RatcliffeSpitfire>

Castle Bromwich Spitfire Factory

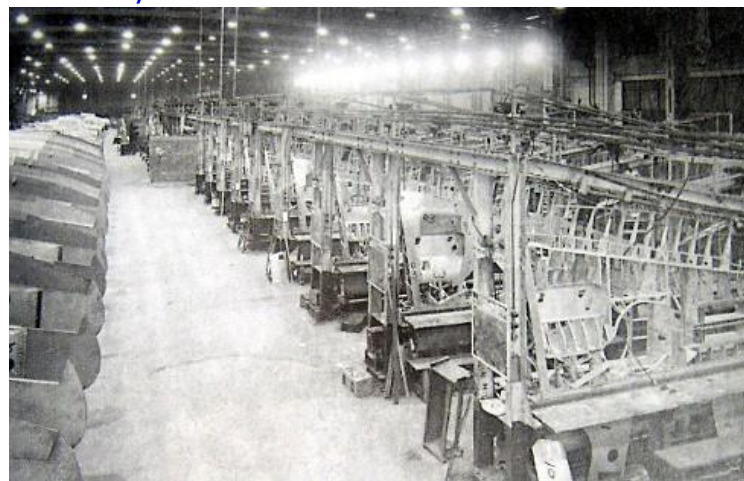
The links that The Ratcliffe Spitfire project has to the Supermarine Spitfire continue to grow. I have recently uncovered information that links our airfield directly with the dispersal of hundreds of Spitfires during the war. As we know, Ratcliffe Aerodrome became one of the primary dispersal units for aircraft production during WWII with the Air Transport Auxiliary as No.6 Ferry Pool. The many factories used to produce aeroplanes for the war effort were obvious targets for enemy bombers,



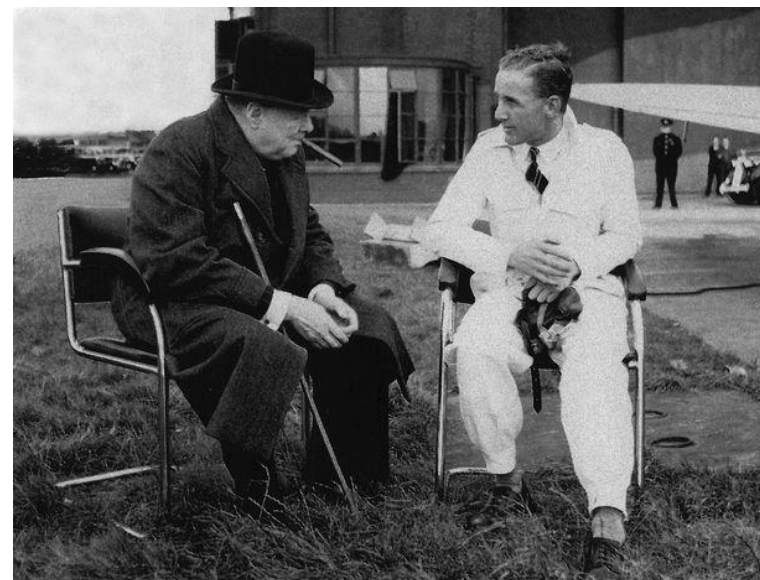
so it was necessary for the completed aircraft to be moved out of harm's way quickly, hence the need for the ATA. The factories in Birmingham's Castle Bromwich suburb began producing Spitfires in 1940, just as Supermarine's main site in Southampton suffered from their easy reach of the Luftwaffe's bombers. By the end of hostilities Birmingham was responsible for producing over half of all Spitfires, and Ratcliffe was one of the ATA's

Ferry Pools specifically set up to take aircraft from Castle Bromwich. It would be very interesting to find out how many Spitfires flew in to Ratcliffe over that time. Old Ratcliffian Steve Clarke has a very informative website, <http://www.airclark.plus.com/RatAerodrome/Rataero.htm> where he states that

50,000 flights were made by the ATA at Ratcliffe, but how many of each aircraft type would be interesting to know, if data even exists. I can highly recommend the book, Spitfire Women, written by Giles Whittell and published by Harper Collins, which tells the story of the ATA, and mentions Ratcliffe prominently on a number of occasions. By all accounts Lord



Everard was instrumental in creating a special atmosphere here for the pilots, carrying on from the pre-war club atmosphere of the aerodrome, and often entertaining the pilots at Ratcliffe Hall just across the A46. A number of them were even billeted at his property. There were certainly benefits afforded him given his position and connections which by all accounts allowed him to be quite lavish with his entertainment whilst the country was under rationing.



Of further note is that Castle Bromwich's Chief Test Pilot throughout the war was none other than Alex Henshaw, amongst the most famous of pilots from the era. He had already made a name for himself prior to hostilities breaking out by setting numerous records and world firsts. On one occasion he set the speed record flying to Cape Town and back in just over 3 days, and in 1938 he won the King's Cup flying in his Percival Mew Gull. He was only 25

at the time, and his average speed over the course was 236.25 mph, an unbroken record to this day if you exclude the P-51 Mustang which won in 1967...an aircraft slightly out of place in the event!

As chief test pilot for the Castle Bromwich factory Alex was responsible for ensuring that each Spitfire that left the factory was airworthy, test flying many himself; (in fact it is said that he personally flew 10% of all Spitfires built), and he maintained his love affair with this aircraft until he died at the age of 94 in 2007. There is a well-known clip of him flying a Spitfire, I believe it is the only known such piece of footage, and it was apparently filmed here at Ratcliffe. The piece depicts him looping the aircraft and pulling out at very low level before inverting and running down the length of the runway maintaining that attitude! He apparently pulled a similar



stunt along the length of Broad Street in the centre of Birmingham, at a height of 50ft during the Lord Mayor's Spitfire Fund appeal. This is Alex in his own words describing what he did: "I shot down the main street in Birmingham, rolling as I did so, and finished in the inverted position below the top of the Civic Centre" In October 1945 No6 Ferry Pool, Ratcliffe was disbanded, and a great fanfare put on. Alex was one of the pilots who took part in the displays, and of course, in a Spitfire.

Stan Hartill



I was recently put in touch with a most remarkable man by Rosemary Baillon. Stan Hartill served in the RAF for six years and throughout the Battle of Britain as ground crew on Spitfires. Most importantly for us he was with 609 Squadron for a good deal of the battle before he moved to 41 Squadron based at Hornchurch, (right in the thick of it). Stan knew John Dundas, respecting him hugely for his decency as a true gentleman. Stan's job at 609 was primarily to look after the flight commander's aircraft, but he actually looked after John's Spitfire for a few days and was very much saddened when, on returning to the squadron after being on a six week course, he learnt of his death in the same fight that took Paul Baillon. With the preparations for the Normandy invasion Stan was amongst the first RAF ground crew to undergo Commando training in order to be in a position to land on the beaches and set up forward operations for the RAF. By all accounts he and his fellow specialist RAF personnel had quite a time just off Juno beach, but eventually managed to get ashore and begin preparations for the first allied aircraft to be stationed in France since the

evacuation of Dunkirk over four years previously. The first flight of Spitfires was led by local Melton Mowbray pilot, and ace, Johnny Johnson who came in with 33 aircraft. The soldiers' moral was boosted tremendously when they saw these aircraft coming in, knowing that they were being supported by the RAF, literally together on the battlefield. The Coldstream Guards wrote to Wing Commander J Johnson expressing their gratitude.

Stan has rightly found a certain degree of fame recently. In 2015 at the service at Westminster Cathedral for the 75th Anniversary of the Battle of Britain he was interviewed by Dan Snow, and in the same year he was awarded France's highest military award for bravery, the Legion d'honneur. The article to the right from the Bournemouth Echo dated November 13th 2015 gives some further information. The irony of the other story on that page has not been lost on me, and I wonder if the editor chose that intentionally.

I have promised to send Stan hard copies of these bulletins so that he can understand our project a little more, and he has already sent me some information that he has which includes a couple of DVDs of interviews he has given, as well as a documentary made about him.

What an honour to have spoken to Stan. It is for him, and the memory of everyone who fought for the freedom we enjoy, and take for granted, that this project exists.

