

## NEWS

# Spitfire fans on cloud nine as British propeller finally cleared for takeoff

Blades based on 'lost' 1942 designs will allow heritage planes to jettison their German replicas

Nicholas Hellen

To patriotic Spitfire enthusiasts, it has been a source of embarrassment for many years that the only way the Second World War fighter planes can take to the skies is with replica propeller blades made in Germany.

Now, 80 years after the Battle of Britain, a UK manufacturer has produced authentic propellers granted a certificate of airworthiness by the Civil Aviation Authority (CAA). Even better, they are made from lost designs drawn in 1942, and rescued from a skip.

Rupert Wasey, 47, managing director of Hercules Propellers in Stroud, Gloucestershire, received approval from the CAA last week and the first official flight will take off in January from Biggin Hill, one of the main fighter bases during the Battle of Britain. Soon a peacetime audience will see the capabilities that enabled the Spitfire to take on the Luftwaffe's Messerschmitt Bf109E.

According to Wasey, the heritage Spitfires with German propellers cannot

run at "full tilt". He said: "They have to restrict them for safety, whereas ours have absolutely no restriction on them because they are made like the originals."

The quest to create a fully British Spitfire began five years ago when Wasey received a call from a company that was disposing of archive material from Hordern-Richmond, an aeronautical firm founded in 1937 by Edmund

Hordern, a test pilot, and the 9th Duke of Richmond.

Wasey said: "Every time I get the drawings out for people in the business, their jaw is on the floor and they say 'Where did you get that? It's bonkers, it's amazing.' There are many copies but this is the pen-and-ink master, probably created by a girl at a drawing board." They had not been seen since 1954.

The find included designs of a Spitfire Mk VII Merlin engine from 1942, with drawings on cellulose acetate linen showing how to construct propeller blades of

hydullignum, a type of birchwood laminate that helped reduce the weight from 540lb to 283lb. The material had other advantages, such as saving aluminium and magnesium alloy for other war efforts. If a propeller hit the ground, the wood cushioned the impact.

In 1939, a Spitfire cost £12,604 to build, or about £830,000 in today's prices. Now the four blades of a replica propeller cost £35,000, with the full hub at £150,000. When the planes come up for sale they fetch £2m to £3m.

The first propellers from Wasey's workshop were sold to Mark Bennett, an engineer from Godalming, Surrey, who has rebuilt a Spitfire flown by the Canadian ace Bill Olmsted in Italy in 1943 and Peter Holmes, a British pilot who flew on his 18th birthday.

Sadly, neither are alive to see it take off at Biggin Hill in January. All but one of Churchill's famous "Few" RAF fighter pilots have died, leaving only John Hemingway, 101, who lives in a Dublin care home.

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Rupert Wasey's propeller blades are being fitted to heritage Spitfires, far left