

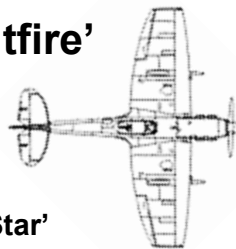


MEDWAY AIRCRAFT PRESERVATION SOCIETY LTD

Patron: Her Royal Highness The Duchess of Cornwall



RW388 – ‘The Stoke Spitfire’



‘A Peacekeeper & Reluctant Film Star’

The Mk XVI Spitfire

Spitfire **RW388** is an LF Mk XVI built by Vickers Armstrong and is one of 1,054 of this type to be built in Castle Bromwich Aircraft Factory (CBAF). The Mk XVI was almost the same specification as the Mk IX except that the engine was a Merlin 266, built in the USA by the Packard Motor Company.

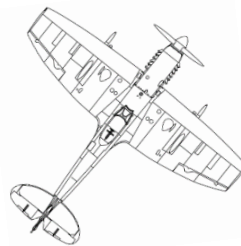


RW388 was ordered as one of 700 Spitfire Mk XXI aircraft, cancelled in August 1944 but partially reinstated as 40 Mk XVI aircraft, built as serial block RW373 to RW396. Its sister aircraft RW393 also arrived at No 6 MU in the same week and is now on display at RAF Hendon and RW382 is airworthy and based at Biggin Hill in Kent.

All Mk XVI aircraft were built as low altitude fighters (LF) and most LF aircraft had clipped wings which enabled greater manoeuvrability and speed at lower level. Due to the shape of the Packard Merlin, a bulged upper cowling was introduced, the aircraft also had a bubble canopy.

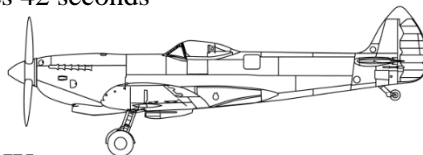
Technical Data

Type: Single-seat fighter-bomber
Serial Number: **RW388**
Mark: **XVI**
Designation: **LF** (Low altitude fighter)
Wing Type: 'e' type with clipped wingtips
Armaments: 2 x 20 mm Mk.II Hispano cannon,
2 x 0.50 calibre Browning machine guns.
Capacity for 1 x 500lb bomb on central rack and
2 x 250lb bombs under each wing.
Engine: Merlin **266** (1,720-hp liquid-cooled V-12, two-stage,
two-speed supercharger with intercooler)
Airscrew: 4-blade constant speed Rotol airscrew with wooden
blades
Top Speed: 406 mph
Range: 430 miles (without extra tanks)
Climb Rate: 20,000 ft in 6 minutes 42 seconds
Service Ceiling: 41,500 ft
Camouflage: grey and green

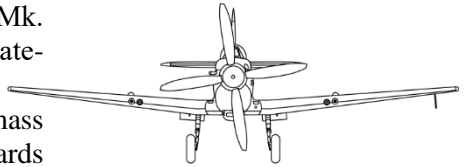


Other information:

- Essentially the same as Mk. IX Spitfire, but adapted for the American built Packard Merlin.
- Cut-down rear fuselage with bubble canopy.



- Fitted with a larger, pointed ‘Mk. VIII-type rudder’ often fitted to late-production Spitfires.
- Elevator has straight-angled mass balance horns – tips point forwards rather than 45° angle, as featured on all but the earliest Mk. XVI Spitfires.



The History of Spitfire Mk XVI Serial RW388

RW388 was built as an **LF Mk XVI** at Vickers Armstrong (Castle Bromwich), Construction Number **CBAF.IX.4646**. It was not fitted with any armament or gun sight as it was used primarily as a training aircraft and then later towed targets for Royal Navy ships to train their gunners. Below is its history, as researched from various records.

- 18/07/1945 Taken on charge at No 6 Maintenance Unit (6MU) at RAF Brize Norton.
- 02/08/1945 Service with 667 Squadron, Code U4 RAF Gosport. It was painted with large serial underneath each wing as a recognition feature.
- 30/11/1945 Flying Accident at Ardorf, Germany; Polish pilot. Category Ac: Repair is beyond the unit capacity, i.e. may be repaired on site by another unit or contractor.
- 13/12/1945 Transferred to No 411 (Polish) Repair and Salvage Unit, Quakenbruck.
- 09/05/1946 Transferred to No 29 MU, RAF High Erroll, Salop Aircraft Storage Unit.
- 12/01/1949 Returned to 6 MU, RAF Brize Norton.
- 23/03/1949 Handling Squadron for air tests, possibly at RAF Upavon.
- 29/04/1949 Return to 6 MU, RAF Brize Norton.
- 02/07/1949 Service with 5 Squadron, Code OQ (apparently not used), RAF Pembrey. Painted silver by now and carrying code 7B-D.
- 23/11/1949 Sliding canopy detached in flight damaged the tail; Polish pilot.

01/04/1951 Allocated to 612 Squadron, RAF Dyce; no code allocated.

04/06/1951 Service with Fighter Command Control and Reporting School (Middle Wallop), Coded 3L-R.

03/01/1952 Flying Accident at Middle Wallop; sliding canopy detached in flight and damaged the tail; Polish pilot. Category 3R damage: Repair is beyond the capabilities of the parent or nearest unit.

1952 Offered to a museum in New Zealand; details unknown.

14/01/1952 Converted to instructional No. 6946M, issued to No. 49 MU, RAF Colerne.

30/01/1952 Allotted to 41 Group, RAF Colerne; still coded 3L.R.

17/06/1960 Possibly gate guardian at RAF Benson but not confirmed.

By 09/1961 Gate guardian at RAF Benson.

29/08/1962 Gate guardian at RAF Andover.

1963 to 1967 Radiators removed and donated to Spitfire T8 **G-AIDN**.

01/04/1968 Displayed at Cardiff City Hall.

03/04/1968 Displayed at Mersmiths Garage, Cardiff, RAF Recruiting drive.

10/04/1968 19 MU, RAF St Athan for restoration and converted to Spitfire V, AB917 "The Inspirer" for London and Edinburgh Tattoos.

16/05/1968 RAF Cardington for Royal Tournament practice.

26/06/1968 Starred at Royal Tournament Earls Court.

17/08/1968 Featured in Edinburgh Military Tattoo.

14/09/1968 Appeared in Battle of Britain Display, RAF St. Athan; returned to 19 MU, RAF St. Athan, for storage; prepared for presentation to City of Stoke-on-Trent and restored to Mk. XVI status. Some components donated to restore Spitfire SM411 for display at Krakow, Poland.

23/10/1969 Transferred to 71 M.U. RAF Bicester, stored prior to presentation.

07/12/1970 5 MU RAF Kemble.

08/04/1971 71 MU RAF Bicester.

15/02/1972 Delivered the Potteries Museum, Stoke.

- 28 /06/1972 Presented to the City of Stoke-on-Trent by ACM Sir Neil Wheeler on behalf of the Air Force Board in former 667 Squadron markings coded U4-U.
- 27/10/1985 Unveiled in new gallery, Potteries Museum.
- 05/02/2018 Moved to MAPSL at Rochester Airport, Kent for restoration.

On Display



On display as a gate guard RAF Andover.



The aircraft was converted to a Mk V, AB917 “The Inspirer” initially for static use during the Battle of Britain film but never used – note the false rear fuselage and wing tips. Celebrity status finally arrived when it was on display for the London and Edinburgh Tattoos in 1968.

At Stoke on Trent, the Spitfire was originally housed in a glass structure on Bethesda Street. Some years later the decision was made to move the Spitfire indoors to a more stable environment. In 1986, RW388 was



craned into an open courtyard in the Stoke Museum, and a roof constructed over the top. It is painted in 667 Squadron markings.

Restoration at MAPSL,

A very cold, icy and wet Monday 5th February 2018 saw the arrival of Spitfire Mark XVI **RW388** on a flat-bed truck and its move into the workshop of MAPSL, before the task of carrying out a full appraisal of its condition and defining the work to be done.



The fuselage and wings were relatively sound with a little corrosion, needing only some serious TLC, but the remainder was clearly going to be a challenge, not least to source replacement parts for those that were missing. The radiators, the pilot's seat and the majority of the controls, instruments and switches were all missing. The tail section was badly damaged with the elevator dismantled and missing its frames. Parts of the Merlin engine were missing or boxed and there were signs of damage and corrosion on both the engine and engine bearer. The aircraft had been painted several times during its life and it was evident that an attempt had been made at some point to remove some of it. The fuselage has a series of small holes running down the back from an artificial 'high' back that

was added in 1968 to disguise it as Mk V Spitfire, AB917 for the Royal Tournament and Edinburgh Military Tattoo.



Checking a wing attachment



Cleaned and painted engine



Rebuilding the elevator



View through the fuselage



Removing the old paint



The cleaned fuselage

Up to May 2019, the fuselage has been stripped and the other sections of the airframe have been cleaned and primed. The engine and its bearer have been demounted, with the engine cleaned and painted and the bearer NDT

tested. The propeller has also been cleaned. Some parts have been moved to secure storage due to space limitations in the workshop. Final painting is due to start as soon as possible. It is planned to return the finished aircraft to the Stoke Museum in the early summer of 2020.

The Future for RW388

The people of Stoke-on-Trent are very proud of their association with RJ Mitchell, the Spitfire designer, and want to highlight the Spitfire story and the people involved in producing this aircraft as well as his life and work. He was born in Kidsgrove, educated in Stoke-on-Trent and, aged 16, gained an apprenticeship in the drawing office at Kerr Stuart & Co in Fenton, where he studied engineering and mathematics at night school.

The plan is to display artefacts and documents within the Museum and they are also focusing on inspiring a new generation of engineers. The Stoke on Trent Potteries Museum and Art Gallery has a vision for the aircraft to be conserved for the education and study of current and future generations in a purpose-built section of the Museum.

MAPSL are proud to have been asked to restore **RW388** back to its former and original appearance to help Stoke-on-Trent realise its vision.



There are ghosts of RW388 incorporated in other restoration projects across the world, just as RW388 now contains the ghosts of several aircraft in its current rebuild.

For further information on the history of this aircraft and its restoration, and for details on other projects undertaken by MAPSL, please visit our website: www.mapsl.co.uk.

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For further information, please visit the MAPSL website: www.mapsl.co.uk

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