

Troublesome Typhoons



see photo below

(David Martin)

The Hawker Typhoon was a single-seat fighter-bomber, produced by Hawker Aircraft. While the Typhoon was designed to be a medium-high altitude interceptor, and a direct replacement for the Hawker Hurricane, several design problems were encountered, and the Typhoon never completely satisfied this requirement.

Nicknamed the Tiffy in RAF slang, the Typhoon's service introduction in mid-1941 was plagued with problems, and for several months the aircraft faced a doubtful future. However, the Typhoon became one of the Second World War's most successful ground-attack aircraft.

The first problem encountered with the Typhoon after entry into service was the seepage of carbon monoxide fumes into the cockpit. The Pilot's Notes for the Typhoon recommended that "Unless Mod. No. 239 has been embodied it is most important that oxygen be used at all times as a precaution against carbon monoxide poisoning."

Standard procedure throughout the war was for Typhoon pilots to use oxygen from engine start-up to engine shut down.

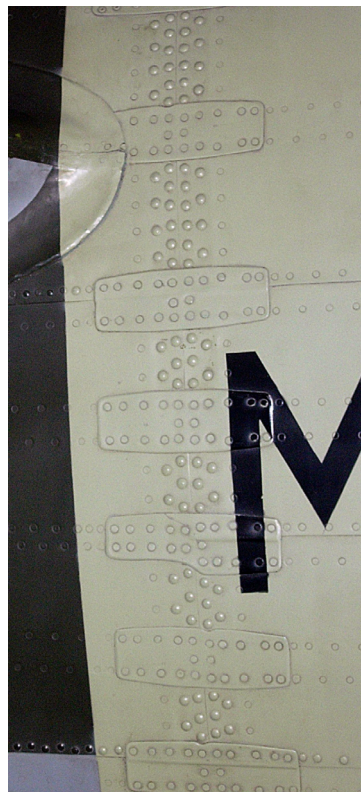
A major problem, was a series of structural failures leading to loss of the entire tail sections of some aircraft, mainly during high-speed dives. The loss of the tail section on R7692 (with only 11 hours of recorded flight) on 11 August 1942, caused the death of Kenneth Seth-Smith an experienced Hawker test pilot, caused a major reassessment which concluded that the failure of the bracket holding the elevator mass balance bell crank linkage had allowed unrestrained flutter which led to structural failure of the fuselage at the transport joint.

Starting in September 1942, a steel strap was fitted internally across the rear fuselage transport joint, although this soon superseded by Mod 286 in which 20 alloy "fishplates" were riveted externally across the rear fuselage transport joint, while internally some of the rear fuselage frames were strengthened. This was a permanent measure designed to stop in-flight rear fuselage structural failures and was introduced on the production line from the 820th production aircraft; between December 1942 and March 1943, all Typhoons without Mod 286 were taken out of service and

modified. Modified balance weight assemblies were fitted from May 1943.

At Fairlop, Typhoons on active service had to be modified in the open with ground crew crawling up the fuselage of a fully fueled and armed Tiffy to hold a heavy block in place whilst a supporting ring was riveted.

Although these modifications reduced the numbers of Typhoons being lost due to tail assembly failure, towards the end of the Typhoon's life there were more tail failures, this time caused by a change to the undercarriage latch mechanism in late 1944; in high-speed flight the undercarriage fairings were pulled into the slipstream, creating an uneven airflow over the elevators and rudder resulting in tailplane and then rear fuselage structural failure. In total 25 aircraft were lost and 23 pilots killed due to tail failures – three at Fairlop.



A repair carried out in accordance with Mod No. 239 on Hawker Typhoon 1B (MN235) believed to be the only surviving Typhoon, now on display at the RAF Museum in Hendon.

(David Martin)