



LEFT A dramatic artwork showing Hawker Typhoon MN819 of No 245 Sqn unleashing a pair of RP-3s on ground forces below during a lashing rainstorm. The enduring myth of the Typhoon being a formidable “tankbuster” was due in no small measure to its relationship with the RP-3. Artwork by HENDRIK AVIATION ART (www.artstation.com/gudd) © 2022.

HELL'S TEETH!

THE HAWKER TYPHOON & THE RP-3 ROCKET PROJECTILE

In the first of a new series of articles detailing the engineering and technological aspects of British aerial weapons using the technical illustrations of IAN BOTT, Hawker Typhoon specialist MATT BONE takes a look at the relationship between Sydney Camm's brawny fighter and the RP-3 rocket projectile that became an enduring part of the type's mythology

THE LAST SURVIVING Hawker Typhoon, MN235, now resides at RAF Museum London in Hendon. This example of the beefy Hawker fighter never saw combat and only survived the great scrapping of Typhoons at the end of the Second World War as a result of having been crashed by the USAAF while being evaluated in the USA in 1944. Today MN235 proudly wears the colours of No 440 Sqn Royal Canadian Air Force, part of No 143 Wing of the 2nd Tactical Air Force (2TAF), following its loan to the Canada Aviation & Space Museum in Ottawa in 2013. Mounted on the underside of its wings are eight dummy RP-3 rocket projectiles (RPs) with 60lb (27kg) warheads. Such is the reputation of the Typhoon as a “rocket-firing tankbuster” that to display this unique aircraft in any other configuration may upset the punters. Only the true aviation geek might point out that No 440 Sqn was actually a fighter-bomber “Bombphoon” squadron that never fired a single

RP in anger. Indeed, neither the Typhoon nor the RP-3 were originally intended for the role that made them famous, a fact that has got somewhat lost in the myth-making. Both were intended as bomber-destroyers — and both would find their niche aiming down rather than up.

AN ILL WIND

The Typhoon was to be Hawker designer Sydney Camm's next great fighter. Having provided the RAF with its first fighters capable of speeds greater than 200 m.p.h. and 300 m.p.h. — the Fury and Hurricane respectively — Camm wanted to take the RAF past 400 m.p.h. (640km/h). With powerful new engines in the 2,000 h.p. region available from Rolls-Royce and Napier, Camm designed his new fighter around an all-metal semi-monocoque rear fuselage mated to the tried and tested Camm/Sigrist tube-structure forward fuselage and cockpit. Napier's H24-configuration 36lit 2,000 h.p. Sabre would power the aircraft. Delays and quality issues with Napier's production of the latter, however, meant initial deliveries of the engine to Hawker were six months late, leaving Camm fuming to Rolls-Royce's Stanley Hooker about “rotten engines spoiling his very good aeroplanes”.

The Typhoon prototype eventually made its first flight on February 24, 1940, but Lord Beaverbrook's “Five Types” directive of May that year saw testing of the new fighter stalled for months. What was clear even then, however, was that the Typhoon had issues. Structurally, there were initial failures of the rear monocoque. Surviving the first of these earned Hawker chief test pilot Philip Lucas the George Medal. Carbon monoxide poisoning in the cockpit also became a problem. Harmonic resonance issues which resulted in the tail detaching from the aircraft also plagued the Typhoon well into 1944 [as covered comprehensively in Richard Seth-Smith's article *Bad Vibrations in TAH27* — Ed.].

Furthermore, performance above 15,000ft (4,600m), where the Typhoon was expected to ply its trade as an interceptor, failed to meet expectations. The type's thick-section wing and the Sabre's single-stage supercharger meant the Typhoon, while operationally capable at height, was not in the Spitfire's class. Frontline squadrons found that while the Typhoon was fast and manoeuvrable “down low”, this was not what the RAF wanted or needed. Until it did.

The emergence of Germany's radial-engined