# Tempest Mk.V Series 1

## eduard

## 1/48 SCALE PLASTIC KIT



#82121



#### **INTRO**

The story of the Tempest is nothing more than an attempt to address the shortcomings of Hawker Typhoon, which prevented it from being a successful fighter. The main problem of the Typhoon was the thick wing with NACA22 profile, offering lot of inner space for fuel and armament, but building drag rapidly with rising speed. Not surprisingly was the wing at the core of the changes on the way to the new fighter. The resulting design was originally supposed to retain the Typhoon name as the Mark II, but it became obvious, the result would be a new plane, so the name was changed to the Tempest, following the traditional path of Hawker to use the "wind" names for its fighters.

#### Series of changes

The new wing was 5 in (12,7 cm) thinner at the root and also the planform changed in comparison with Typhoon wing to more elliptical shape. As the new wing did not offer enough space for fuel, additional 76 gal (288 l) fuel tank had to be installed in the fuselage. The space for it was found between the firewall and the oil tank, but, consequently, it was necessary to move the engine forward by 21 in (53,4 cm). Due to that, the tail surfaces, both the stabilizer as well as elevator, had to be enlarged, also the undercarriage was rebuilt. So, yes, it was a new plane, although it kept the Typhoon engine, which was a very complex issue by itself. With quite ambitious goals regarding the performance of Tempest, new units were considered instead of troubled Napier Sabre II powering the Typhoon. But the things went different way...

#### Back to the roots

Early contract was placed for two prototypes based on the Typhoon airframes powered by Sabre IV, but due to delays, only the HM599 was fitted with it, while HM595 used old Sabre II. The two prototypes also differed in radiator layout as the HM595 retained the distinctive chin radiator of Typhoon, while HM599 undergo radical change as Sydney Camm, Hawker chief designer, wanted to streamline the design. The radiator moved to the leading edge of the inner wing sections on both sides and the sleek nose got some resemblance to the Spitfire. The wing-mounted radiators layout worked well aerodynamically, but the Sabre IV evinced multiple problems and also the complexity of the wing assembly with integrated radiators was of some concern.

There were only two other units powerful enough for use with the Tempest instead of Sabre IV: the R&R Griffon and radial Bristol Centaurus IV. As the new name Tempest was definitely chosen, different marks were assigned to each engine variant and four more prototypes were ordered. The Mk.I was to be powered by the Sabre IV (HM599), the Mk.II by the Centaurus IV (LA602 and LA607), the Mk.III by the R&R Griffon IIB (LA610) and the Mk.IV by the Griffon 61 (LA614). Finally, the Mk.V (HM595) used slightly improved version of the Sabre II (IIB) producing 2,400 hp (1790 kW), thus 200 hp (147 kW) more than previous version. Although it was meant as a stopgap solution until Sabre IV engines would be available, it finally emerged as the main variant of the Tempest, because Centaurus was too late, Sabre Mk.IV still troubled by glitches and integration of the Griffon into the Typhoon airframe proved to be more demanding than expected. So Mk.III ended with first and only prototype, while Mk.IV was never built.

#### Legend is born

The HM595 prototype with Sabre II flew for the first time on September 2nd, 1942, fitted with car door canopy, as the bubble canopy was in development at the time. Streamlined HM599 with Sabre IV performed its maiden flight on February 24th, 1943. It was reasonably faster than HM595, but the solution of problems would take too much time. The easiest way to get the Tempest into the service was to proceed with Mk.V.

The first production Tempest Mk.V made its maiden flight on June 21st, 1943, already fitted with bubble canopy. Armed with four 20 mm Hispano Mk.II cannon (200 rounds per barrel) achieved a top speed of 432 mph (695 km/h) at 18,400 feet (5,600 m), up to 45 mph (72 km/h) more than Bf 109 of Fw 190 (depending on mark). After the first production batch, the Hispano Mk.V cannons were installed, differentiating it from the first batch by barrels fully covered by the wing.

The first squadron to receive Tempests was No. 486 in January 1944. Together with No. 3 Squadron it became operational in April 1944. With addition of No. 56 Squadron the first Tempest Wing was formed at Newchurch, Kent, under the command of W/Cdr Roland Prosper "Bee" Beamont.

#### Fighting everything

After the period of operations over the France following the D-Day, the Tempest Wing was tasked to fight the V-1 Flying Bombs travelling low at speed of some 400 mph (640 km/h). The Tempest Mk.V was never effective high level fighter due to the nature of its engine, but at the middle and low levels was superior to virtually everything. And some 640 destroyed V-1s during the short period between June and August 1944 speak by themselves, as the rest of RAF scored some 160 of them during the period.

After the V-1 bombing campaign ceased, the Tempest Squadrons returned to the common tasks. At the time, seven Tempest squadrons were flying air-to-air combats and claimed 240 kills (some 20 of them Me 262 jets). Most successful Tempest ace, D. C. Fairbanks (US) recorded 11 kills flying Mk.V "Terror of Rheine". Second with nine kills came W. E. Schrader (NZ) with nine and J. J. Payton with six kills emerged as third overall. The most famous Tempest Pilot the Free French Pierre Clostermann added four kills to his tally of 11 (some sources state 18 kills, the precise number is unknown).

Tempest was formidable fighter, fast, tough, with powerful weapons. Thanks to the excellent low altitude performance, the strafing attacks were also quite common, usually during the "search and destroy" rides. Apart of cannons, the provision of two 1000 lb (450 kg) bombs or eight 60 lb (27 kg) rockets added to the destructive force.

#### To the end of an era

Two more variants of the Tempest would enter production later on, but both were too late to see WW II service. The Tempest Mk.II powered by the Centaurus V used some experience gained by examining the engine cowling of captured Fw 190s. The Tempest VI used the Sabre V engine, and was used only by five RAF squadrons based in the Middle East. Of the Tempest Mk.V 1,401 were produced. After the war Tempest V continued in service with British Air Force of Occupation (BAFO) squadrons until replaced by Tempest Mk.II.

Carefully read instruction sheet before assembling. When you use glue or paint, do not use near open flame and use in well ventilated room. Keep out of reach of small children. Children must not be allowed to suck any part, or pull vinyl bag over the head.



Před započetím stavby si pečlivě prostudujte stavební návod. Při používání barev a lepidel pracujte v dobre větrané místnosti. Lepidla ani barvy nepoužívejte v blízkosti otevřeného ohně. Model není určen malým dětem, mohlo by dojít k požití drobných dílů.

### INSTRUCTION SIGNS \* INSTR. SYMBOLY \* INSTRUKTION SINNBILDEN \* SYMBOLES \*





**OPEN HOLE** 



VYVRTAT OTVOR



SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ

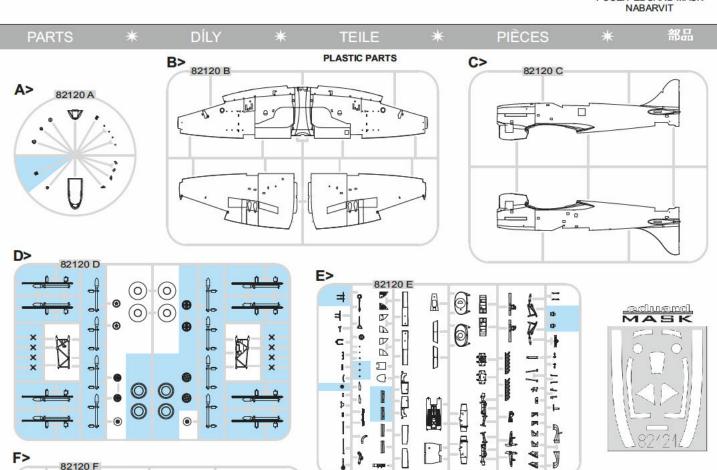


REMOVE **ODŘÍZNOUT** 

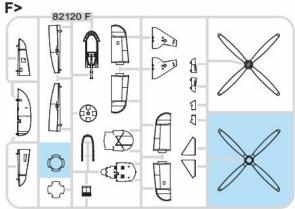


REVERSE SIDE **OTOČIT** 

APPLY EDUARD MASK AND PAINT POUŽÍT EDUARD MASK



**FARBEN** 







-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto dily nepoužívejte při stavbě. - 使用しない解説

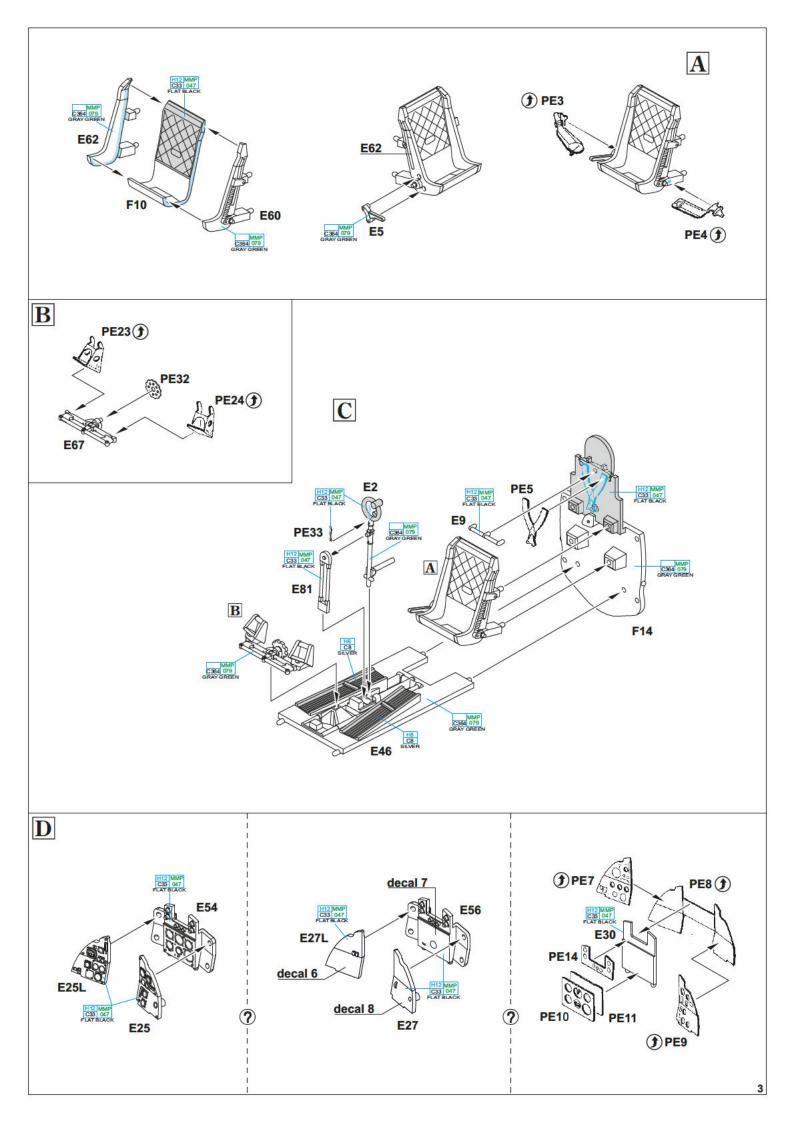
BARVY

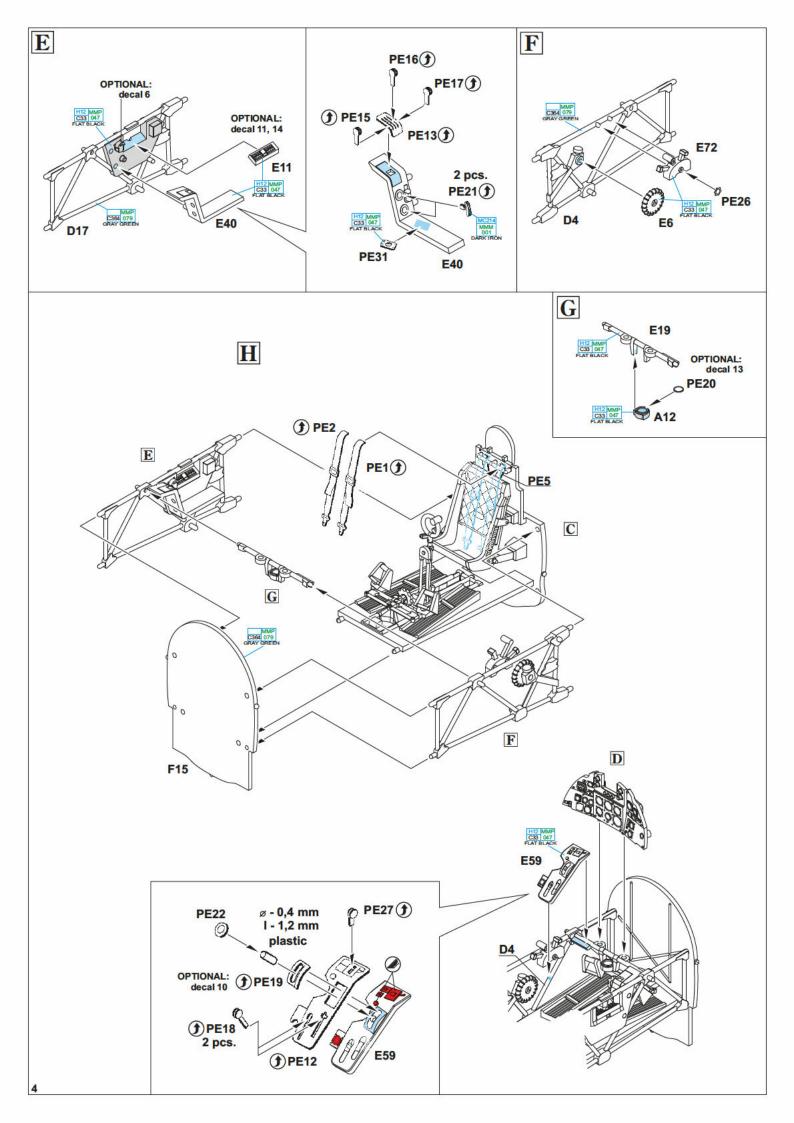
GSi Creos (GUNZE) MISSION MODELS AQUEOUS MrCOLOR PAINTS C4 MMP 007 YELLOW SILVER MMP 001 C62 FLAT WHITE MMP 047 C33 FLAT BLACK C368 MMP 080 SKY C137 MMP 040 TIRE BLACK C47 CLEAR RED C138 CLEAR GREEN

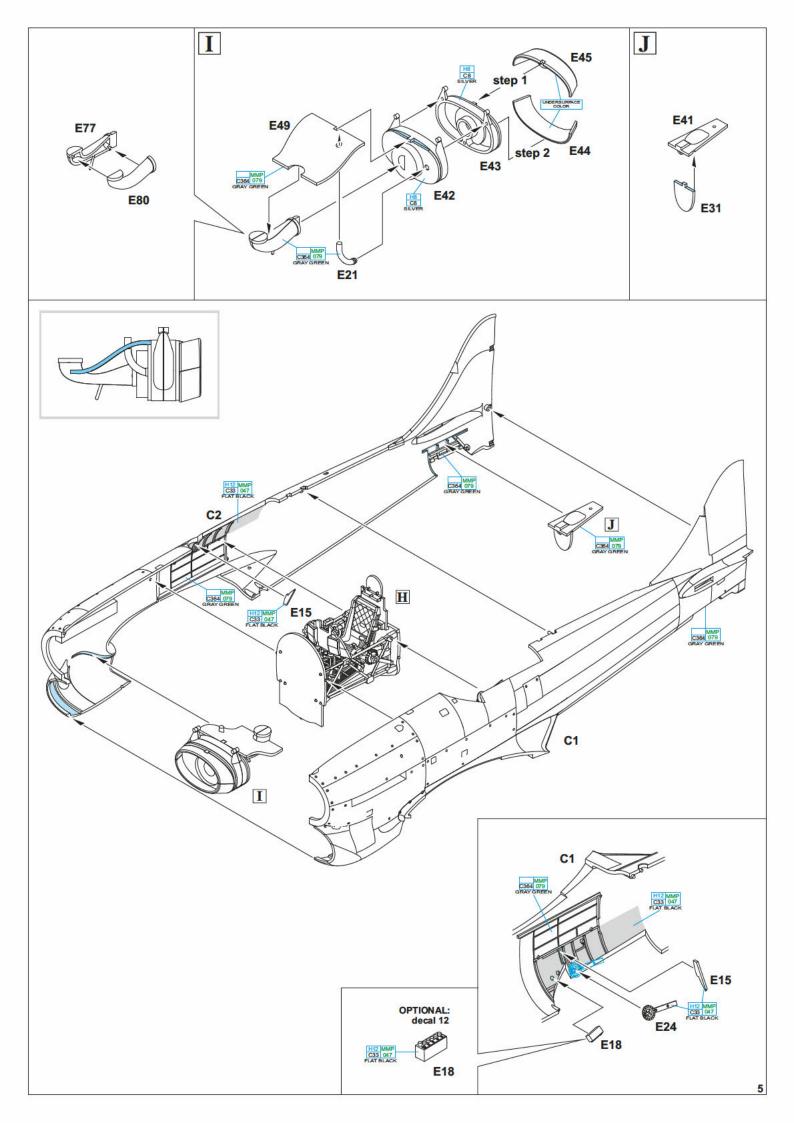
GSi Creos (GUNZE)		MISSION MODELS	
QUEOUS	Mr COLOR	PAINTS	
H330	C361	MMP 077	DARK GREEN
H335	C363	MMP 094	MEDIUM SEAGRAY
	C362		OCEAN GRAY
	C364	MMP 079	AIRCRAFT GRAY GREEN
Mr METAL COLOR		METALLICS	
MC214		MMM 001	DARK IRON
Mr COLOR SUPER METALLIC		METALLICS	
SM01		MMC 001	SUPER CHROME

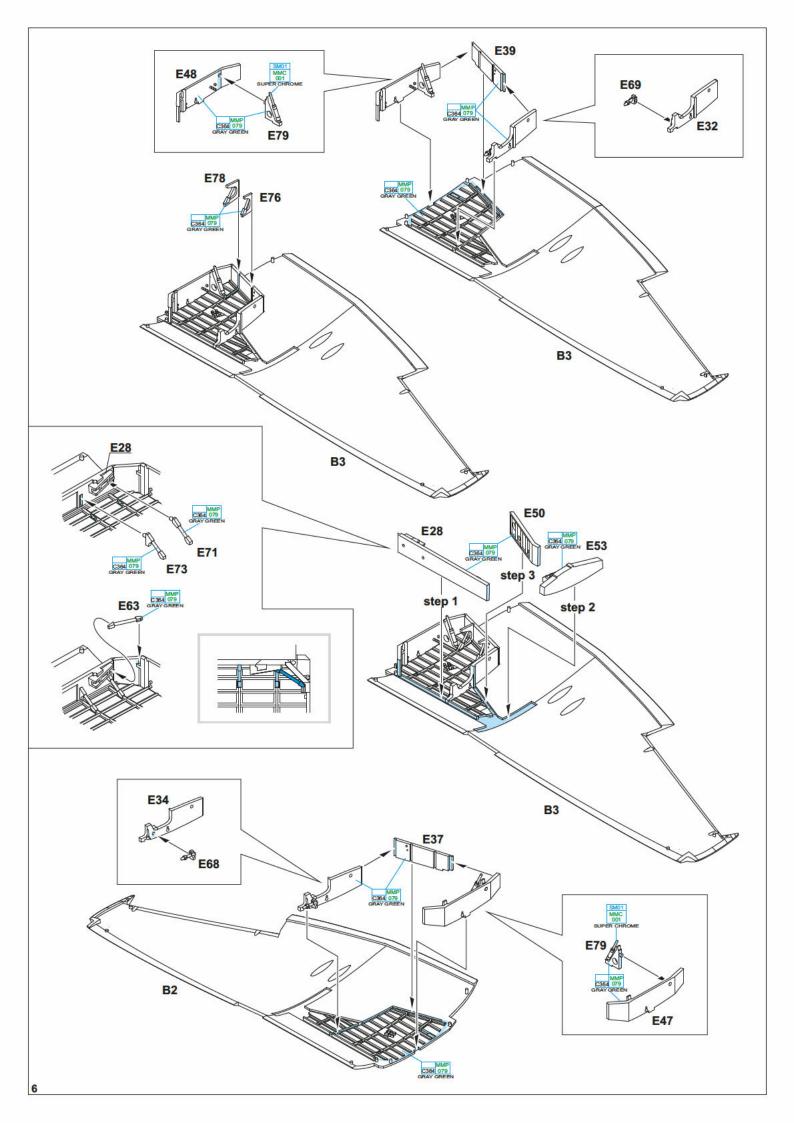
**PEINTURE** 

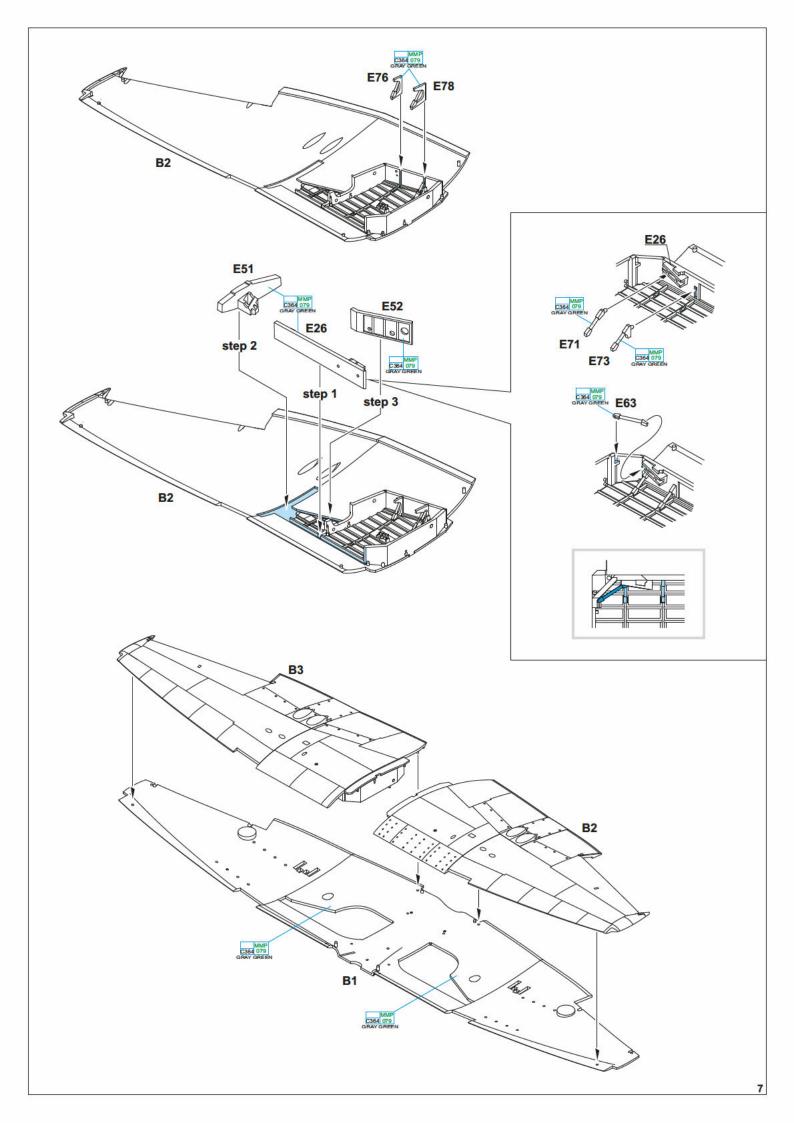
COLOURS

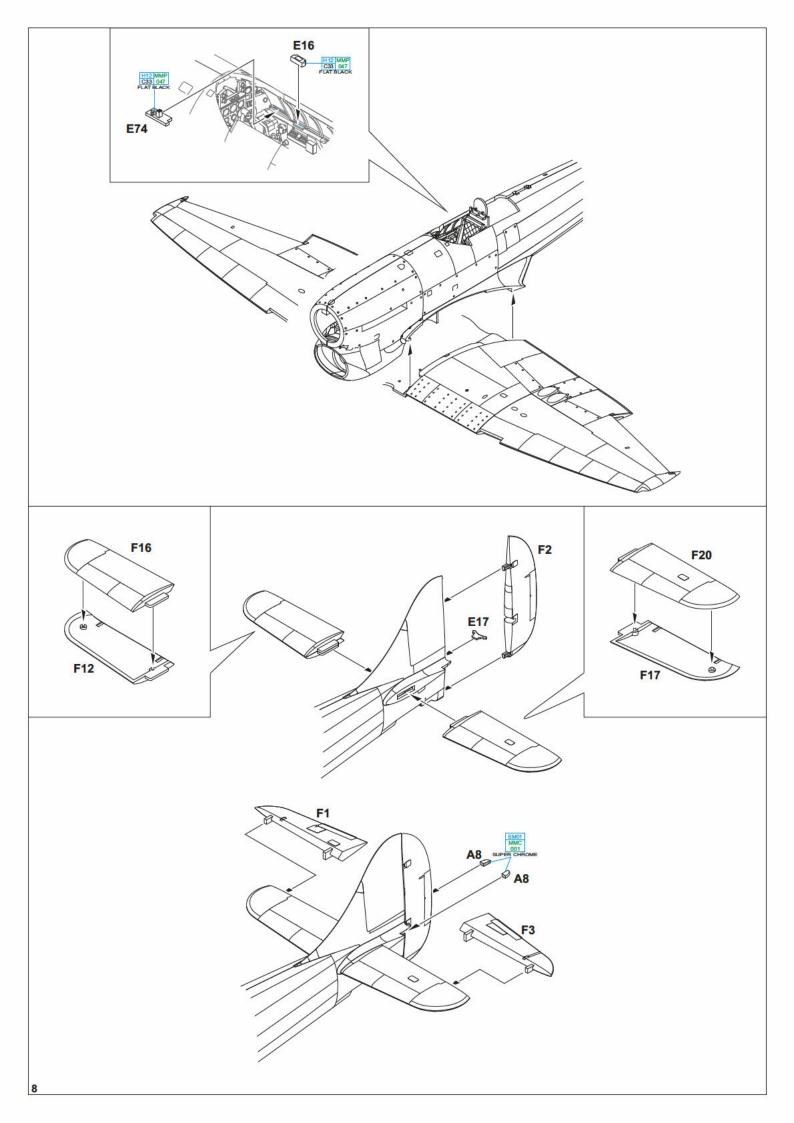


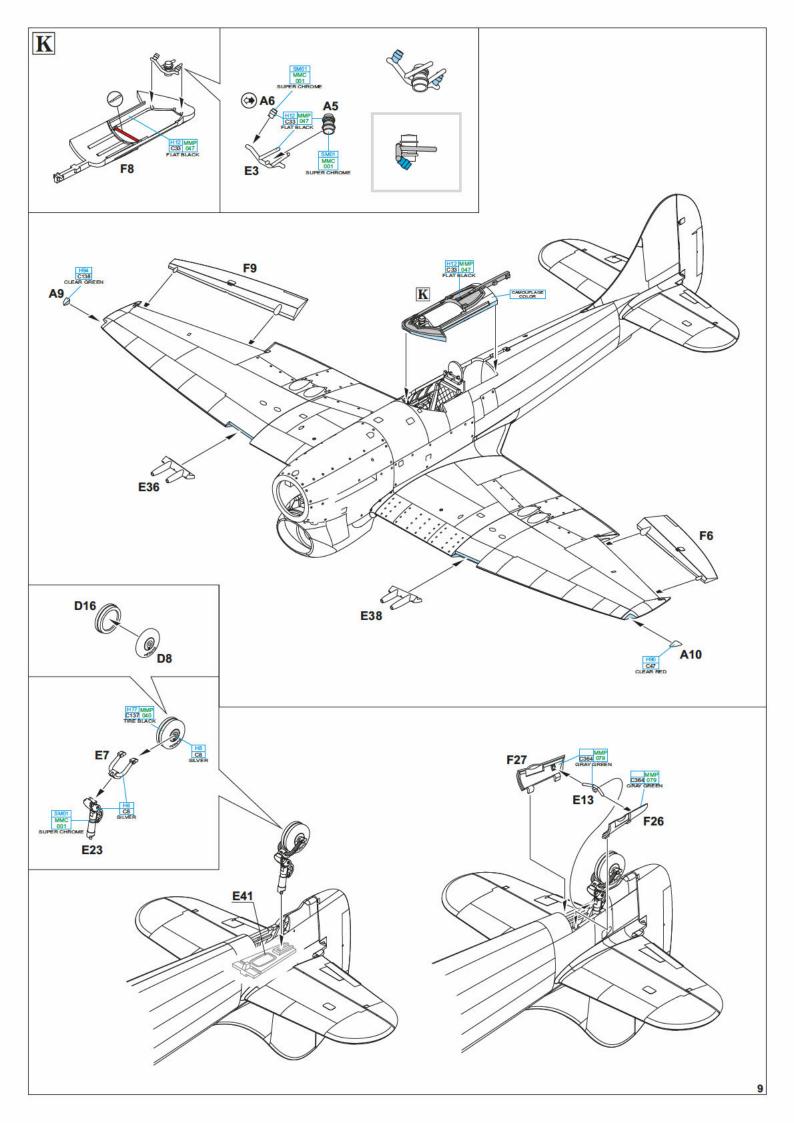


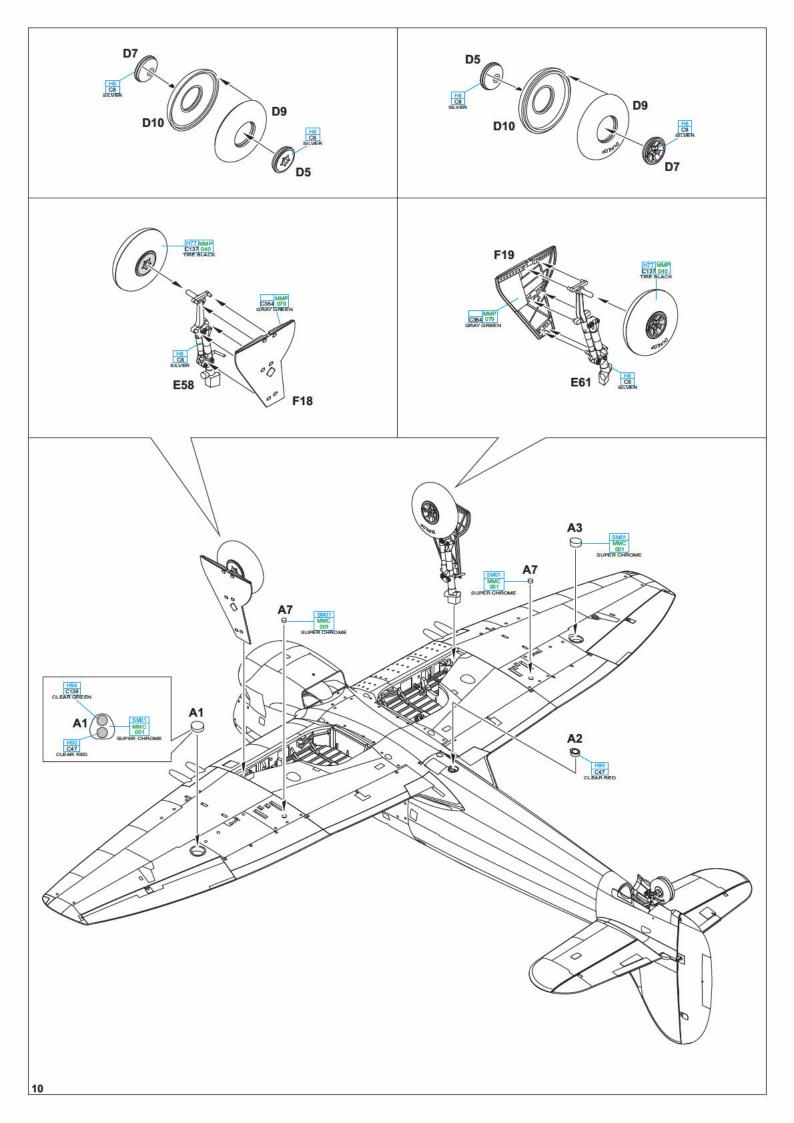


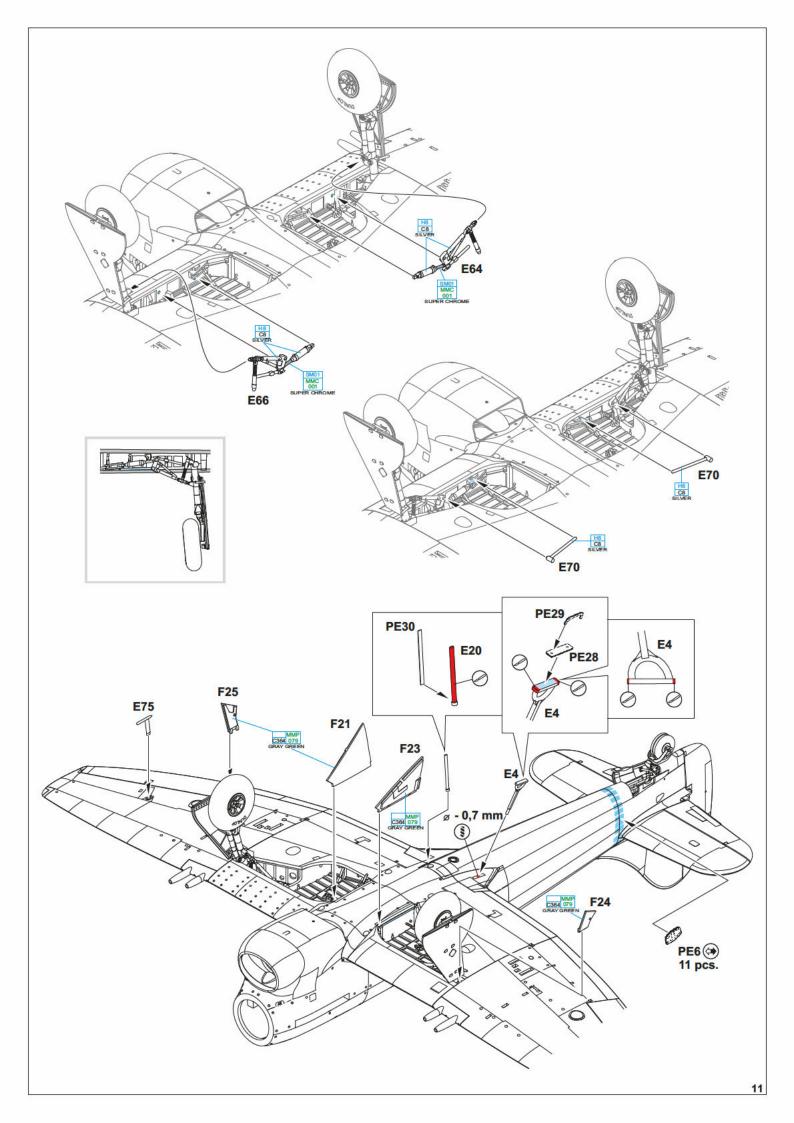


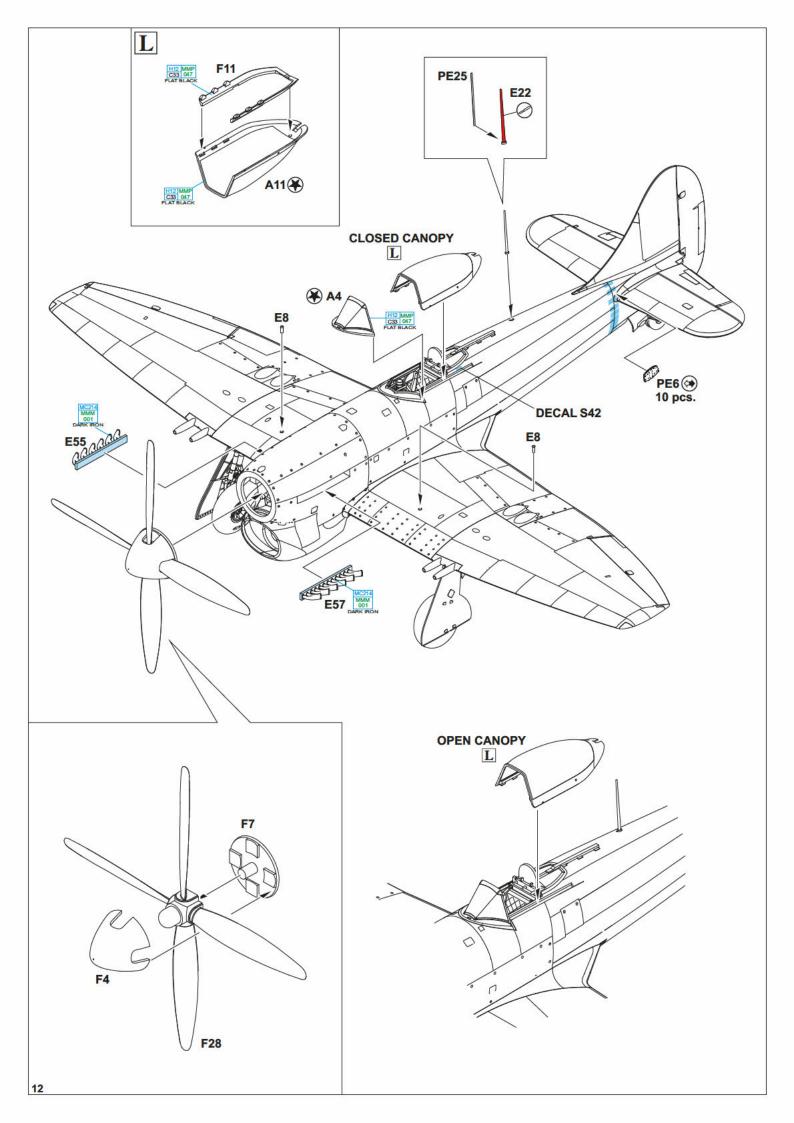


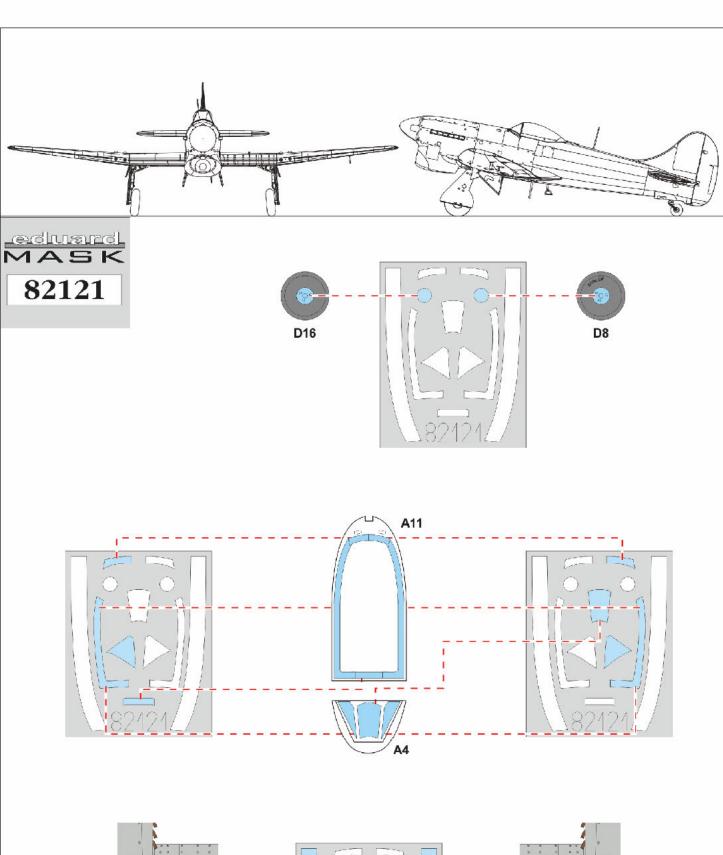


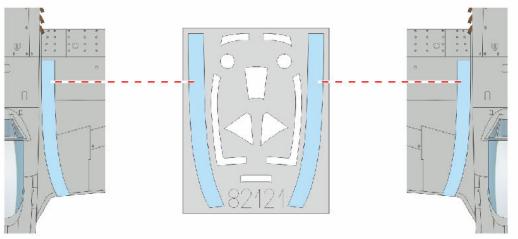






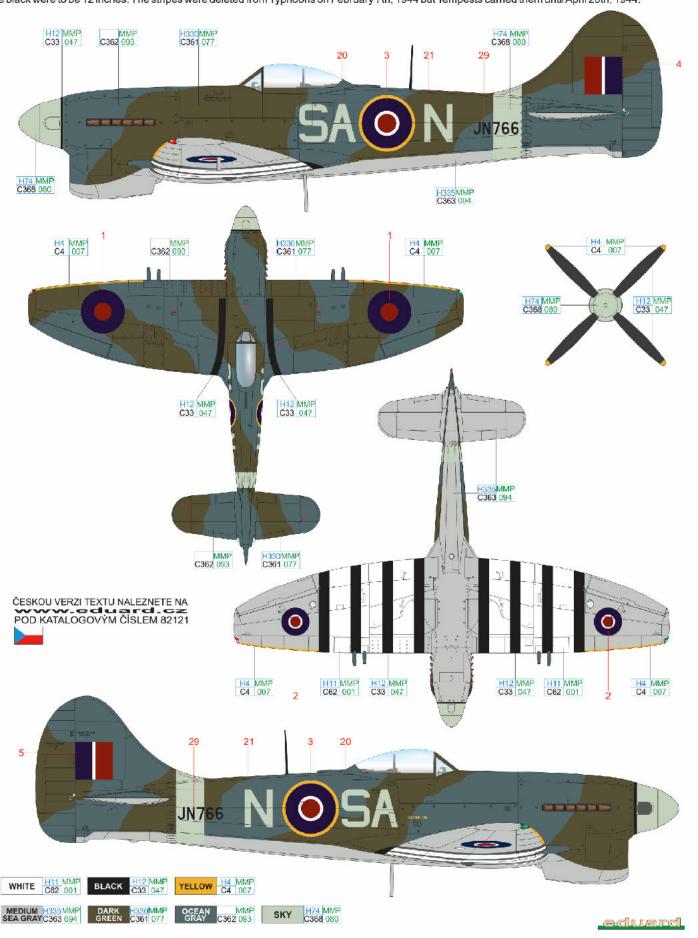






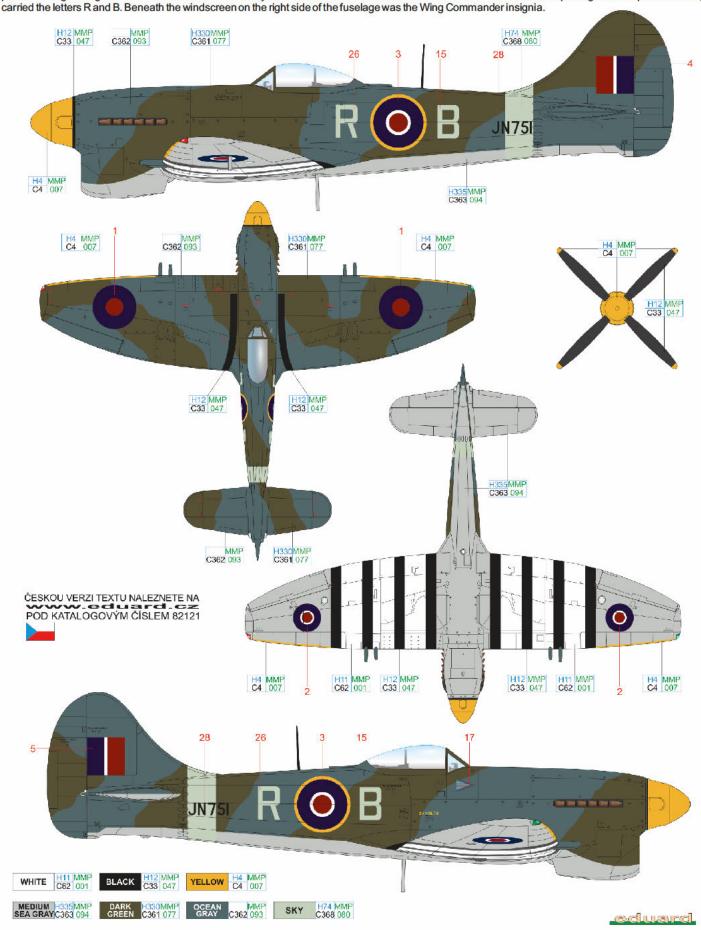
### A EJN766, No. 486 (RNZAF) Squadron, RAF Station Castle Camp, Great Britain, April 1944

No. 486 Squadron was established on March 7th, 1942 at Kirton in Lindsey, and were manned almost exclusively by New Zealanders. Initially, the unit was equipped with Hurricanes but later was given the Hawker Typhoon. The unit's impressive record led to it being one of the first units to chosen to fly the Tempest Mk. V. These new aircraft began to arrive through January and February 1944. It became part of the No. 150 Wing armed with the Tempest and was deemed fully combat ready in April 1944. The camouflage schemes of the new Tempests were composed of the so-called Day Fighter Scheme, with Dark Green and Ocean Grey upper and side surfaces and Medium Sea Grey lower surfaces. At this time, the bottom surfaces of the wings of Typhoons and Tempests were marked with black and white stripes for the purposes of easier identification of friendly aircraft. The specified width of the white segments was 24 inches and the black were to be 12 inches. The stripes were deleted from Typhoons on February 7th, 1944 but Tempests carried them until April 20th, 1944.



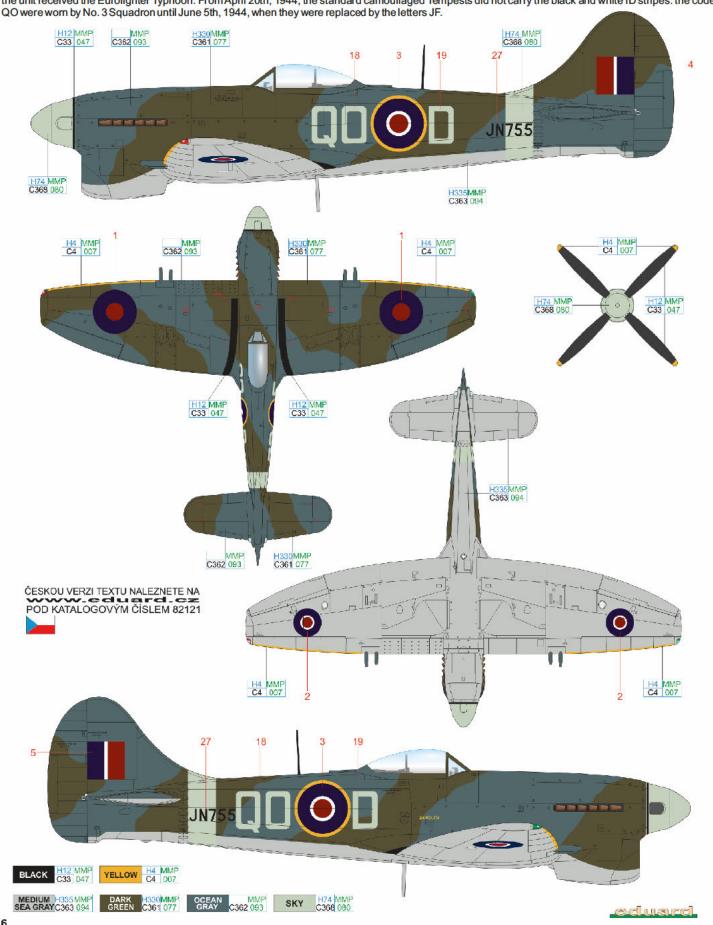
## B JN751, Wg Cdr Ronald P. Beamont, DSO, DFC & bar, CO of No. 150 Wing, RAF Station Bradwell Bay, Great Britain, April 1944

Ronald Prosper Beamont was born on August 10th, 1920 in Enfield in the County of Middlesex, and aviation captured his imagination already at an early age. In 1939, he underwent pilot training and was assigned to No. 87 Squadron, equipped with Hurricanes, and took part in the Battles of France and Britain. From May 1941, he was with No. 79 Squadron, and in December of the same year, on completion of his tour, he joined the Hawker factory as a test pilot. In June 1942 he joined No. 56 Squadron flying Typhoons. Subsequently, he was assigned to No. 609 Squadron that was equipped with the same type, and was named its CO in October 1942. In mid May 1943, he returned to Hawker, where he took part in testing of the Typhoon and its successor, the Tempest. In February 1944, he was named CO of No. 150 Wing, made up of No. 3, 56 and 486 Squadrons intended to be equipped with the Hawker Tempest. One of the perks of being a Wing Commander was to be able to use your initials for an aircraft code. W/Cdr Beamont made use of this privilege and his personal Tempest carried the letters R and B. Beneath the windscreen on the right side of the fuselage was the Wing Commander insignia.



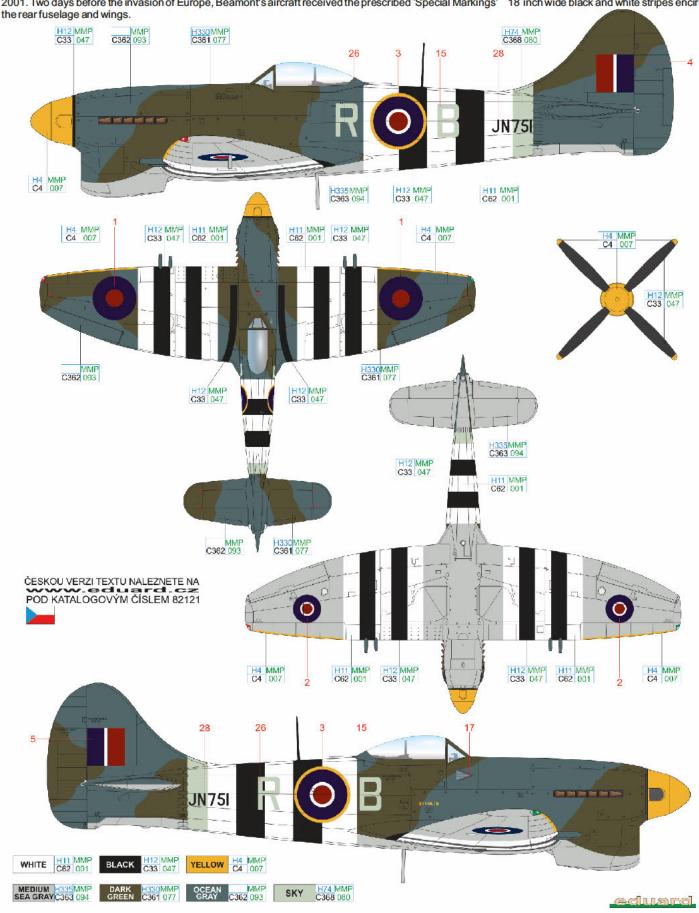
### JN755, No. 3 Squadron, Newchurch, Great Britain, May 1944

No. 3 Squadron was formed in 1912 and at the beginning of the Second World War was equipped with the Hawker Hurricane. As a component of the British Expeditionary Force it fought over Belgium and France. On returning to Great Britain, patrol duties were assigned to the unit over the Royal Navy base at Scape Flow and from April 1941, operated over southern England as a night fighter unit. In February 1943, the unit was re equipped with the Hawker Typhoon and a year later, the Tempest. With these aircraft, the unit prepared for the invasion of Europe but was held back to defend southern England against the V 1 flying bomb. When the V 1 launch sites were over run, it was one of the Tempest squadrons transferred to the European mainland to support advancing Allied troops all the way to the end of the war. It remained in Germany until May 1999 as part of the British Air Forces of Occupation (BAFO), 2nd TAF and RAF Germany. At the turn of the century, the unit took part in the bombings of Kosovo, Sierra Leone, Iraq, and in 2004, Afghanistan. In March 2006, the unit received the Eurofighter Typhoon. From April 20th, 1944, the standard camouflaged Tempests did not carry the black and white ID stripes. the codes



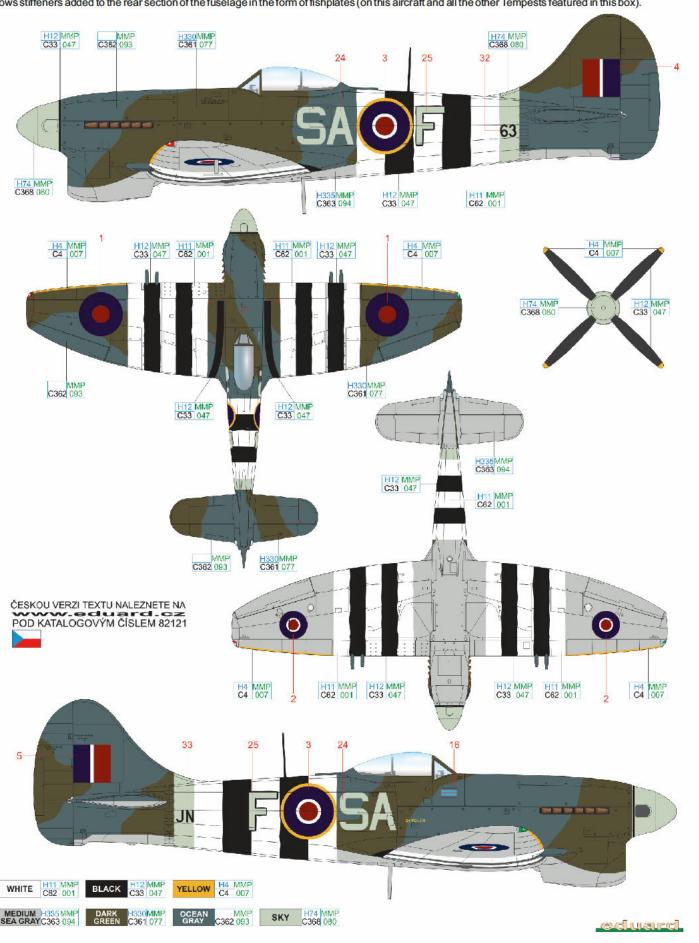
## D JN751, Wg Cdr Ronald P. Beamont DSO, DFC & bar, CO of No. 150 Wing, Newchurch, Great Britain, June 1944

In May 1944, No. 150 Wing was deemed operational. The Tempest equipped only No. 3 and No. 486 Squadrons, while No. 56 Squadron had to wait for their new Tempests until late June 1944 and used the Spitfire Mk.IX in the interim. The task of the Tempests of No. 150 Wing at the time of the invasion was to provide air cover over the battlefield and attack enemy ground targets but from mid June, the priority became (as the Tempest was the most suitable aircraft for the task) the protection of southern England from V 1 attacks. At the end of September 1944, the entire unit under the leadership of Beamont moved to liberated Europe. On October 12th, Beamont's machine was hit by flak and due to a damaged radiator had to put down behind enemy lines and spent the remainder of the war in captivity. Over the course of the Second World War, Beamont claimed nine kills and in July 1944 was awarded a bar to his DSO in recognition of his successful leadership of the Tempest wing which had destroyed more than 600 V 1s (32 by Beamont himself). After the war, he continued on as a test pilot and flew, among others, the Meteor, Vampire, Canberra, Lighting and the TSR 2. He retired in August 1979 and died on November 19th, 2001. Two days before the invasion of Europe, Beamont's aircraft received the prescribed 'Special Markings' 18 inch wide black and white stripes encircling



### JN763, No. 486 (RNZAF) Squadron, Newchurch, Great Britain, June 1944

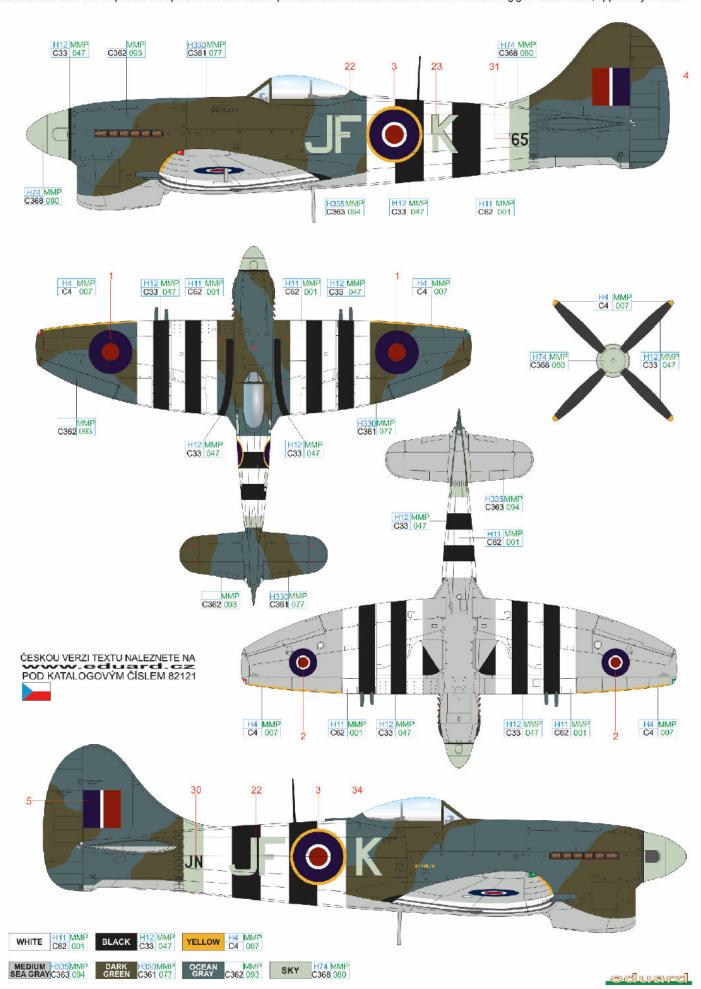
No. 486 Squadron, a component of No. 150 Wing, was tasked with ground attack but from mid June 1944 to early September 1944, it was fully occupied in intercepting V 1 flying bombs launched from occupied Europe. The Squadron's pilots were credited with the destruction of more than 230 of these weapons. After the threat of these attacks had subsided, No. 486 Squadron, along with her sister units, was moved to liberated territory and up to the end of the war was tasked with supporting advancing British units. The unit was disbanded on October 12th, 1945 at RAF Dunsfold. On June 5th, 1944, they would receive aircraft that were intended to support Operation Overlord (the invasion of Normandy) and received the invasion stripes on the rear fuselage and wings in the form of 18 inch wide black and white bands. These were applied in haste and could be quite inaccurate and scruffy at times. Photographic evidence shows stiffeners added to the rear section of the fuselage in the form of fishplates (on this aircraft and all the other Tempests featured in this box).



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### JN765, No. 3 Squadron, Newchurch, Great Britain, June 1944

In early June 1944, No. 3 Squadron's code was changed from QO to JF which was used until August 1945. The so called 'Invasion Stripes' were also added to aircraft serialed JN765 prior to the operation. Groundcrew painted black the bottom section of the main landing gear cover black, apparently in error.



## Tempest Mk.V Series 1

## STENCILING POSITIONS

