Tempest Mk.V



DUAL COMBO!



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.

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

? **OPTIONAL** VOLBA

BEND OHNOUT

SAND BROUSIT

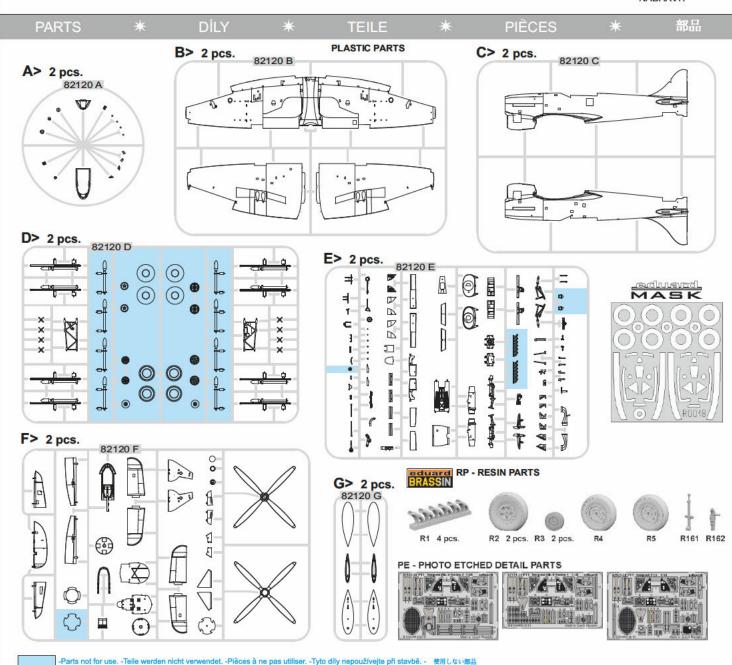
 (\S) **OPEN HOLE** VYVRTAT OTVOR

⒀ SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ

REMOVE **ODŘÍZNOUT**

(3)REVERSE SIDE **OTOČIT**

APPLY EDUARD MASK AND PAINT POUŽÍT EDUARD MASK NABARVIT



FARBEN

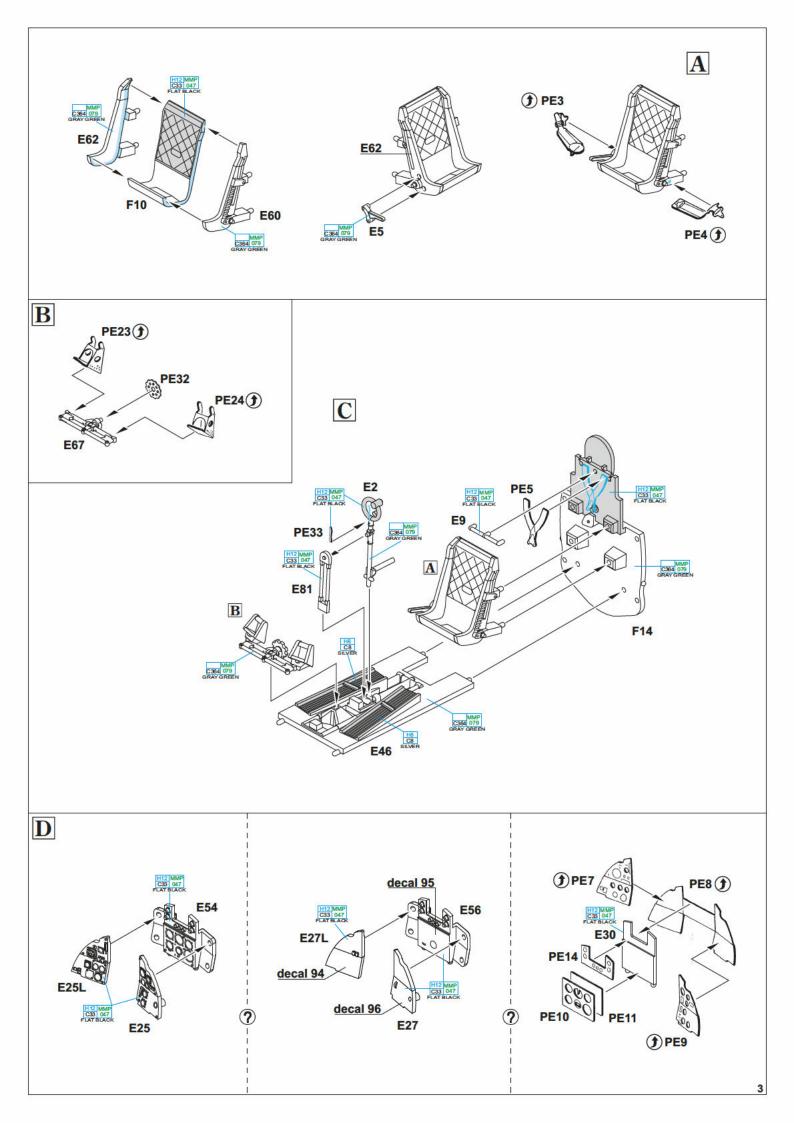
BARVY

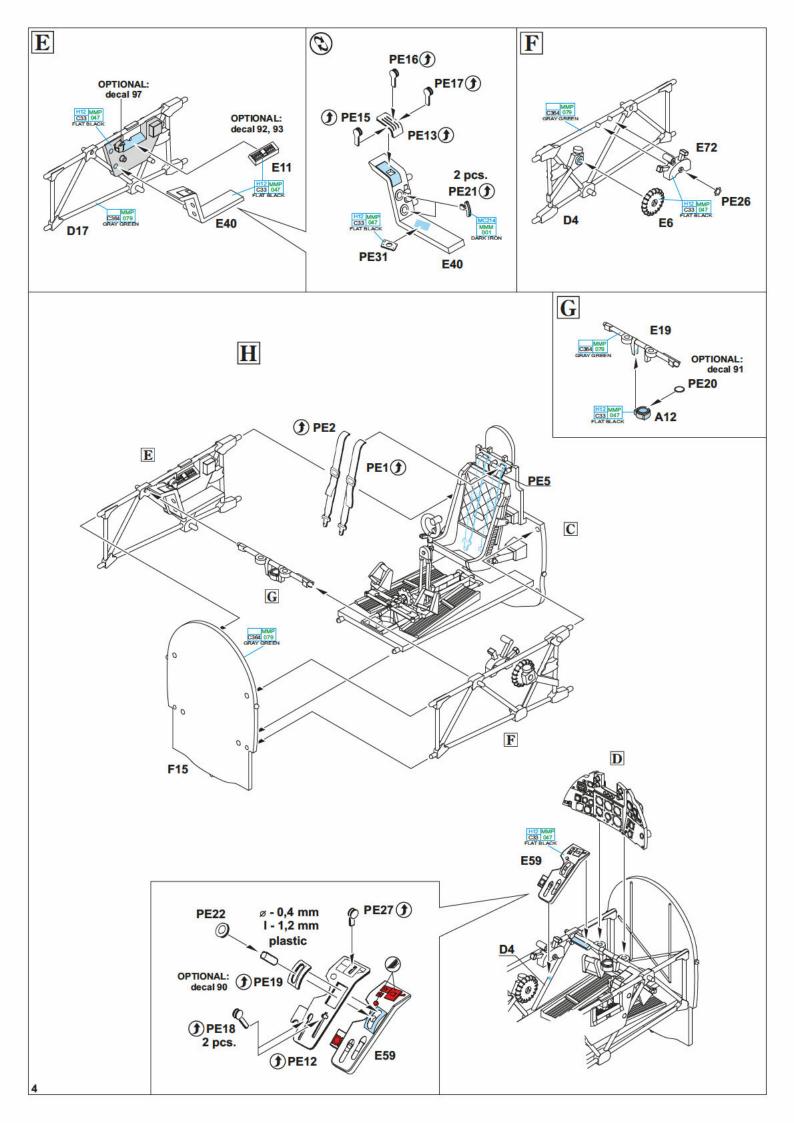
	MISSION MODELS	(GUNZE)	GSI Creos
	PAINTS	MrCOLOR	AQUEOUS
RED	MMP 003	C3	НЗ
YELLOW	MMP 007	C4	H4
GREEN	MMP 004	C6	H6
SILVER		C8	H8
FLAT WHITE	MMP 001	C62	H11
FLAT BLACK	MMP 047	C33	H12
OLIVE DRAB	MMP 091	C12	H52
SKY	MMP 080	C368	H74
TIRE BLACK	MMP 040	C137	H77
CLEAR RED		C47	H90
CLEAR GREEN		C138	H94

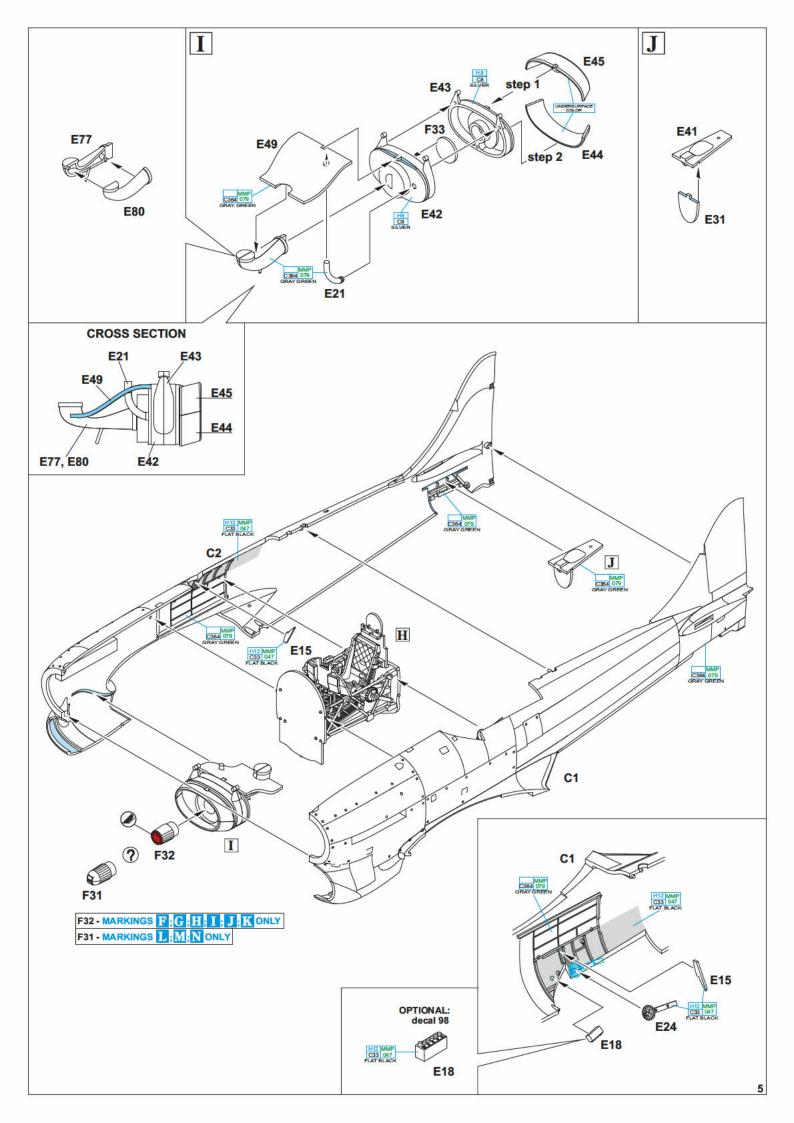
GSi Creos (GUNZE)		MISSION MODELS	
AQUEOUS	MrCOLOR	PAINTS	
H330	C361	MMP 077	DARK GREEN
H335	C363	MMP 094	MEDIUM SEAGRAY
	C159	MMP 006	SUPER SILVER
- 1	C362	*	OCEAN GRAY
Ţ.	C364	MMP 079	AIRCRAFT GRAY GREEN
Mr METAL COLOR		METALLICS	
MC214		MMM 001	DARK IRON
MC218		MMM 003	ALUMINIUM
Mr COLOR SUPER METALLIC		METALLICS	
SM01		MMC 001	SUPER CHROME

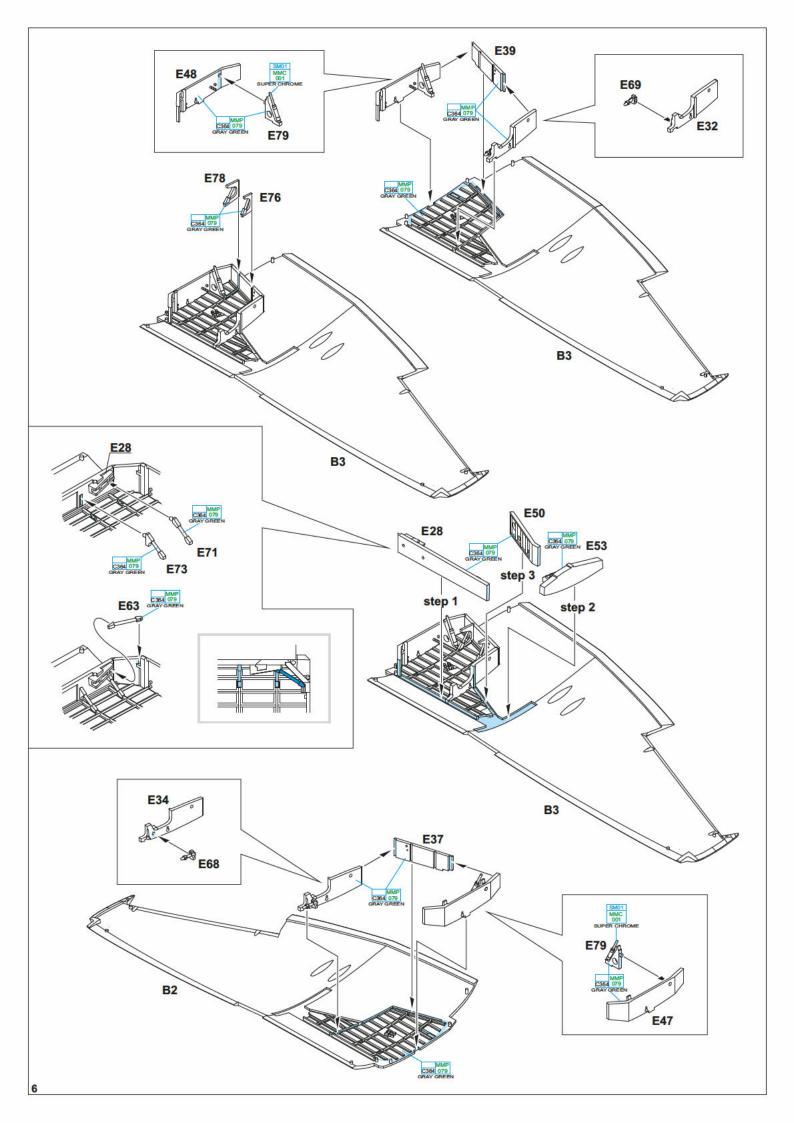
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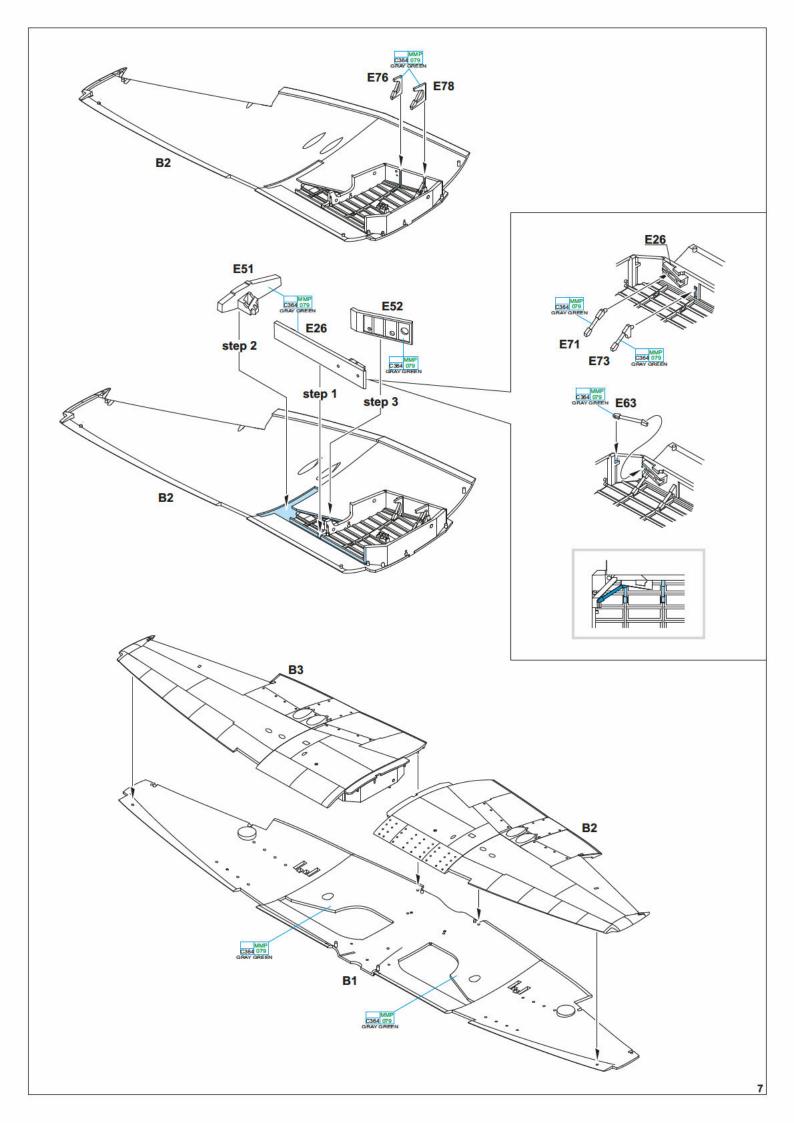
COLOURS

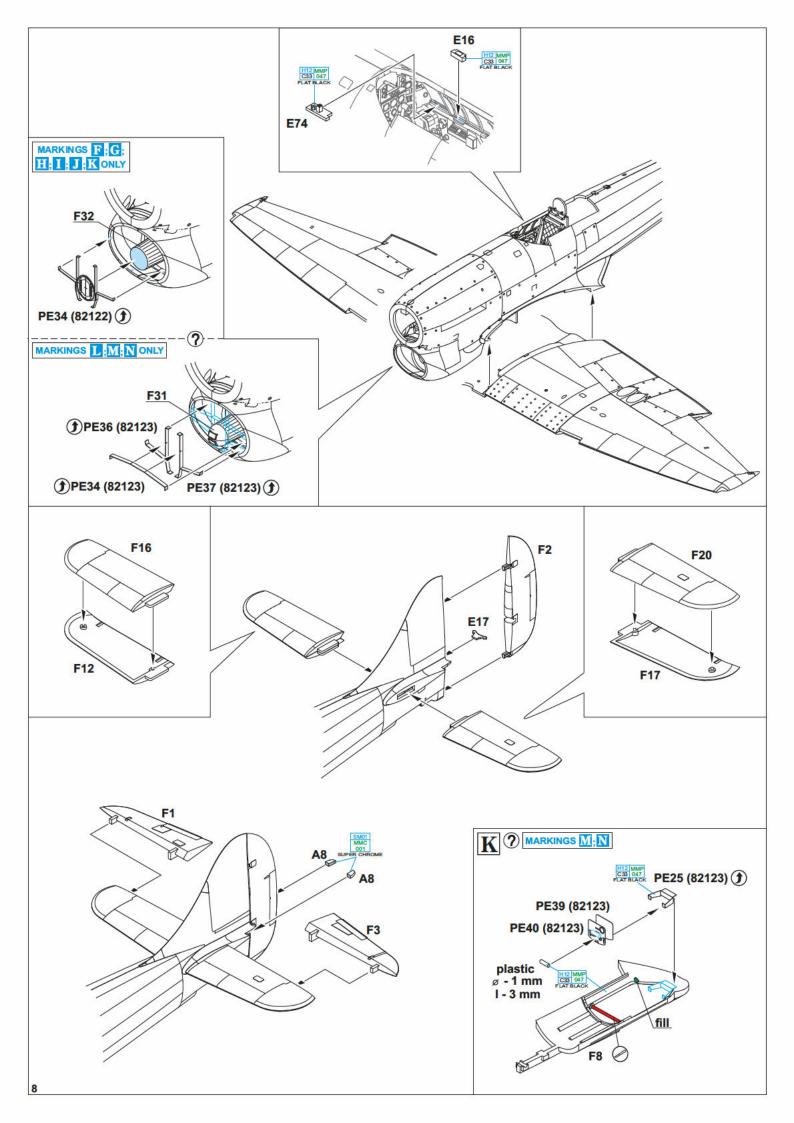


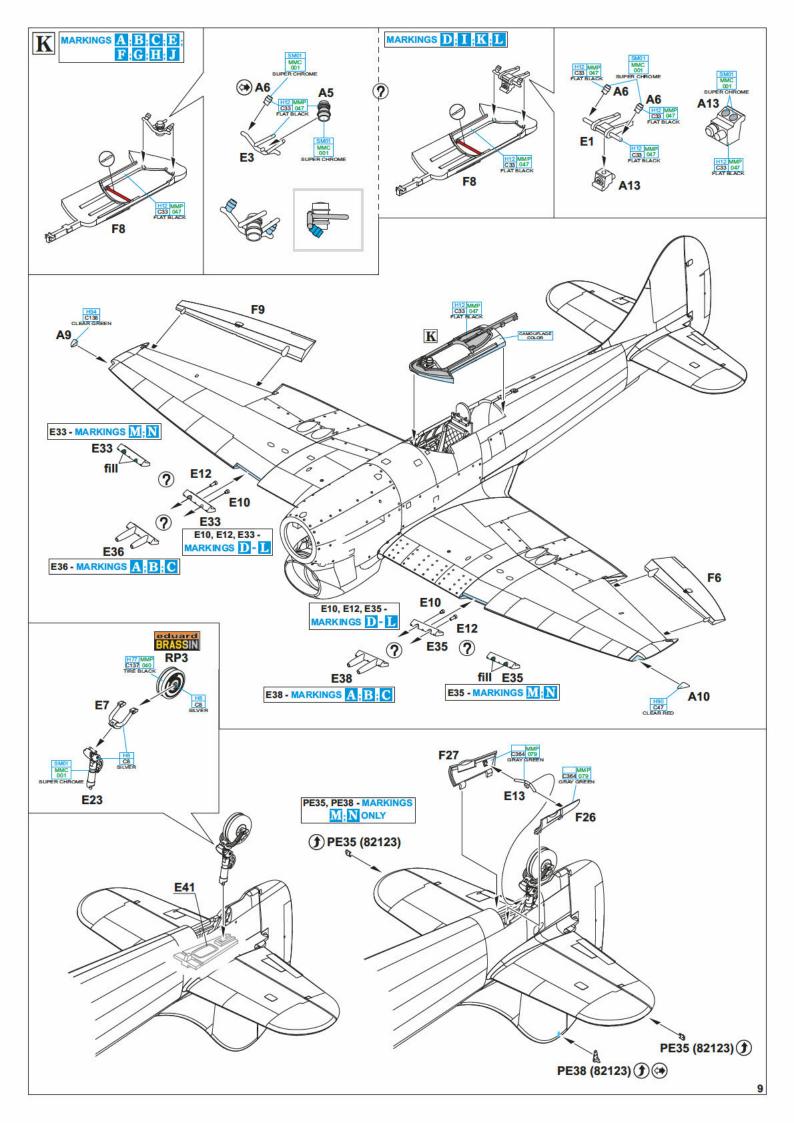


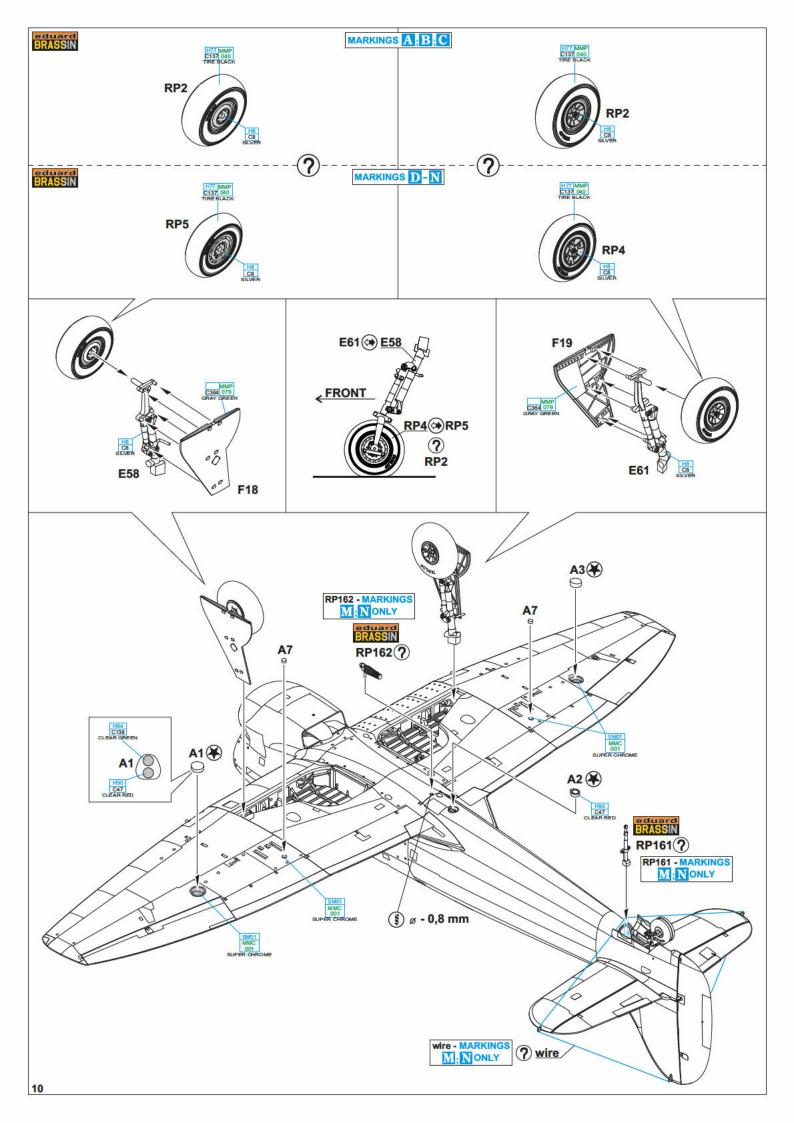


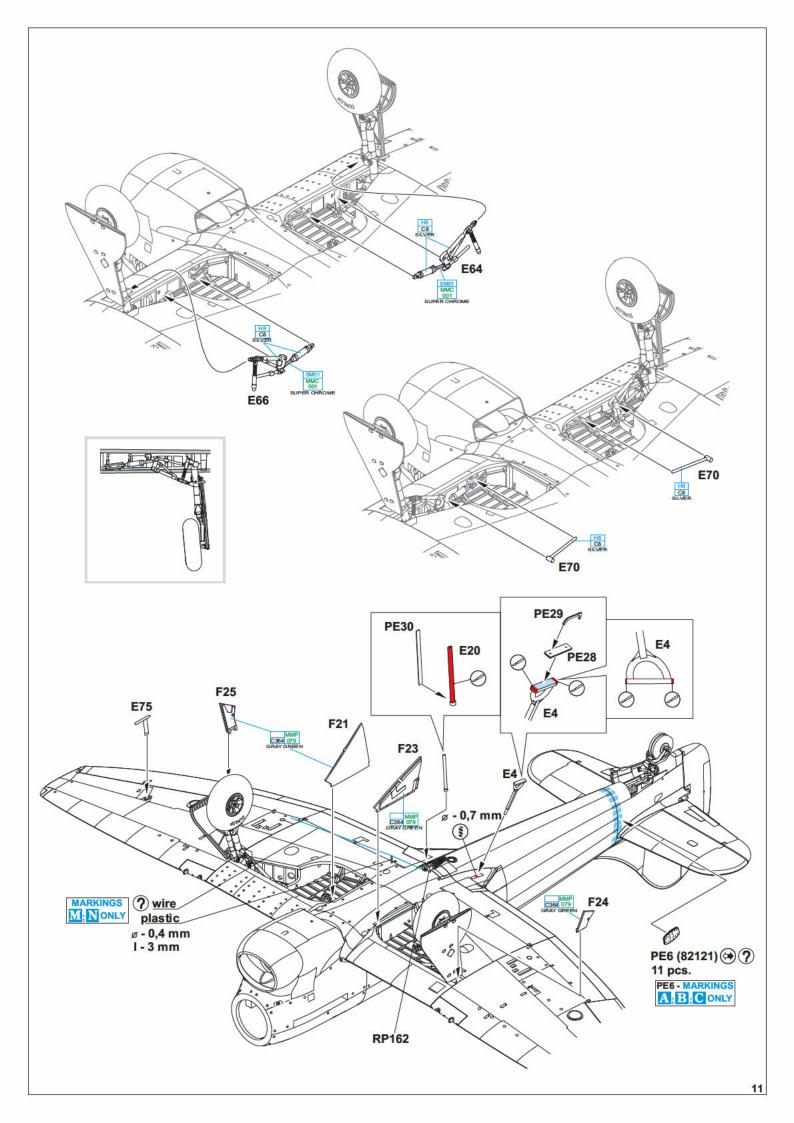


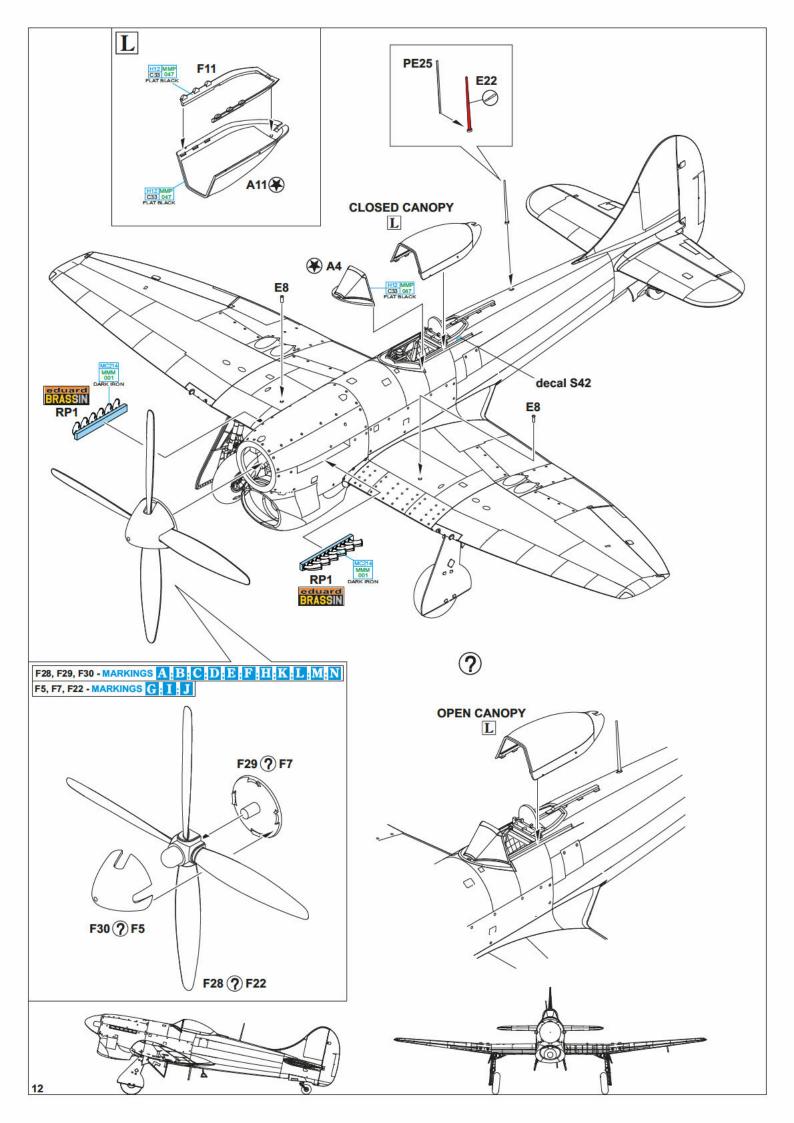


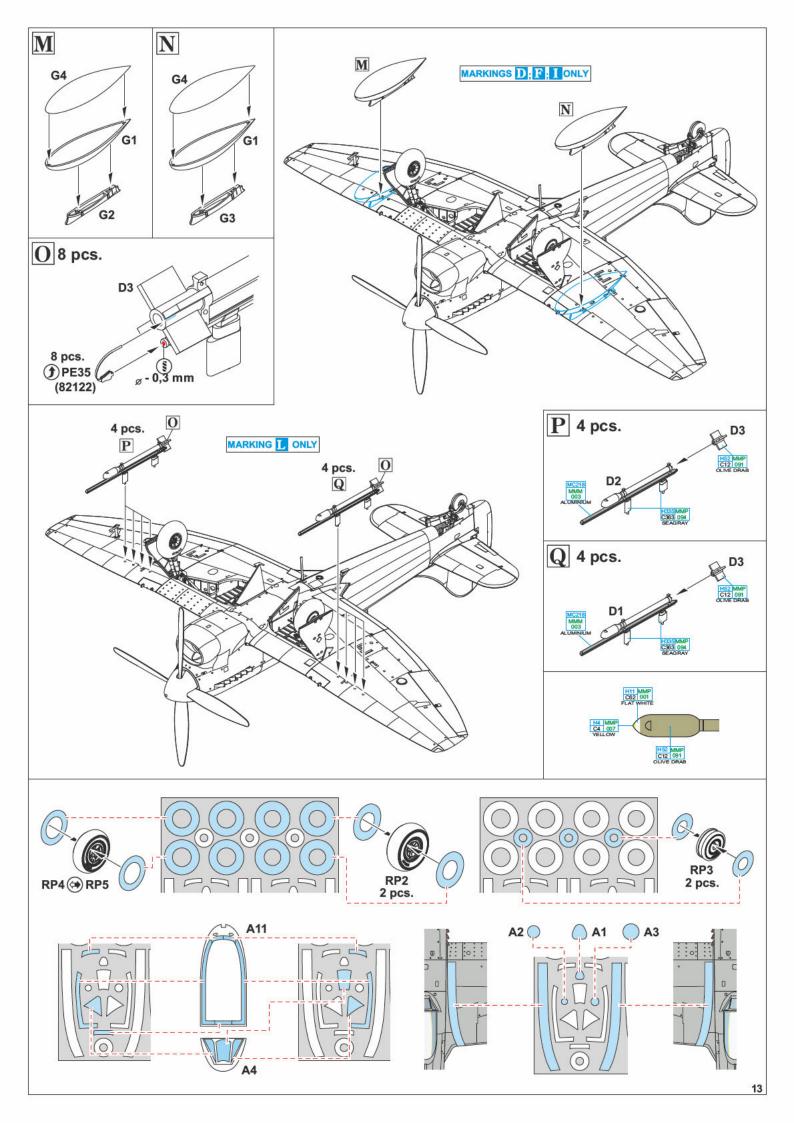




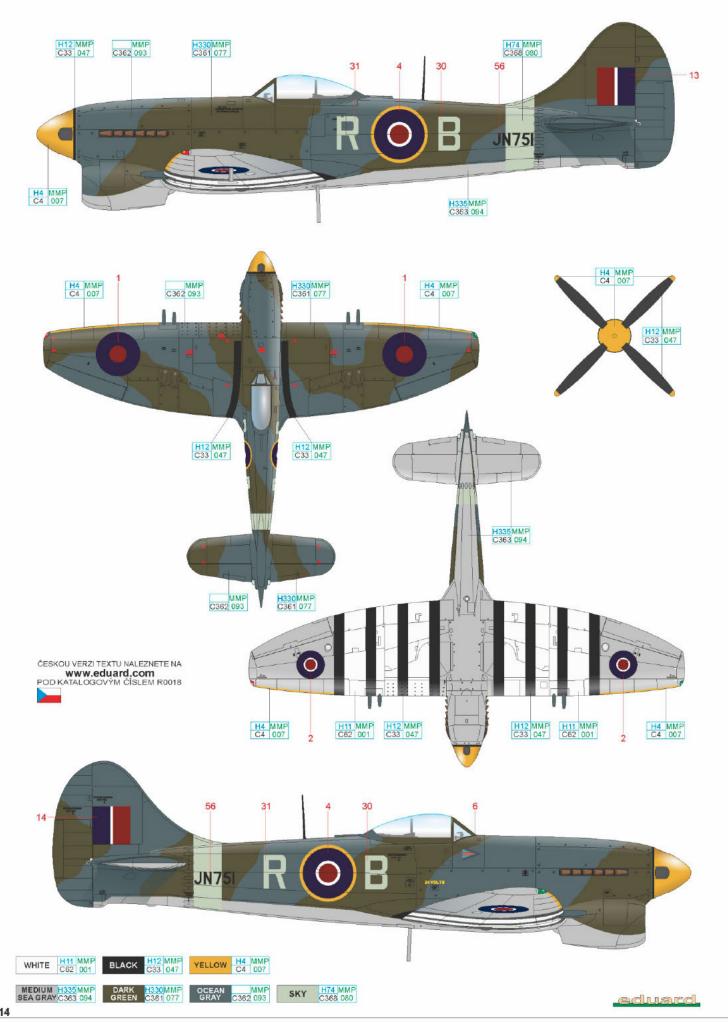








A Tempest Mk.V Series 1, JN751, flown by W/Cdr Roland P. Beamont, CO of No. 150 Wing, RAF Station Bradwell Bay, Great Britain, April 1944

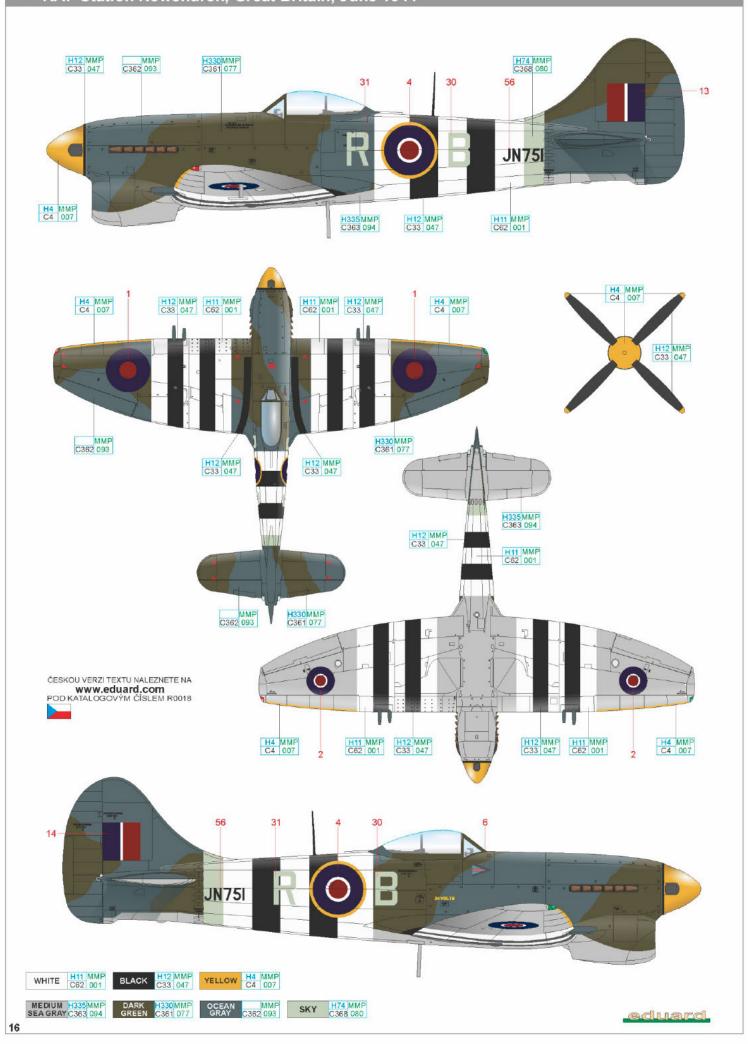


Tempest Mk.V Series 1, JN754, flown by F/Lt H. N. Sweetman, No. 486 Squadron, RAF Station Newchurch, June 1944 MMP C362 093 54 H74 MMP C368 080 H12 MMP C33 047 H12 MMP C33 047 59 H335MMP C363 094 H11 MMP C62 001 H11 MMP C62 001 H11 MMP C62 001 H12 MMP C33 047 H12 MMP C33 047 H11 MMP C62 001 H11 MMP C62 001 H330 MMP C361 077 MMP C362 093 H4 MMP C4 007 H4 MMP C4 007 H4 MMP C4 007 H4 MMP C4 007 H74 MMP C368 080 H12 MMP C33 047 H12 MMP C33 047 H335 MMP C363 094 H335 MMP C363 094 MMP C362 093 ČESKOU VERZI TEXTU NALEZNETE NA **WWW.eduard.com** POD KATALOGOVÝM ČÍSLEM R0018 H11 MMP H12 MMP C62 001 C33 047 H12 MMP H11 MMP C33 047 C62 001 H4 MMP C4 007 H4 MMP C4 007 WHITE | H11 MMP | C62 001 BLACK H12 MMP C33 047 YELLOW H4 MMP C4 007

MEDIUM H335MMP SEA GRAY C363 094

DARK H330 MMP OCEAN MMP GREEN C361 077 GRAY C362 093

C Tempest Mk.V Series 1, JN751, flown by W/Cdr Roland P. Beamont, CO of No. 150 Wing, RAF Station Newchurch, Great Britain, June 1944



Tempest Mk.V Series 2, EJ750, flown by W/Cdr John B. Wray, CO of No. 122 Wing, B.80 Volkel, the Netherlands, December 1944 MMP C362 093 H74 MMP C368 080 18 18M EJ750 H12 MMP C33 047 H335MMP C363 094 H11 MMP C62 001 H11 MMP C62 001 H11 MMP C62 001 H12 MMP C33 047 H12 MMP C33 047 H4 MMP C4 007 H4 MMP C4 007 MMP C362 093 H330 MMP C361 077 H4 MMP C4 007 H12 MMP C33 047 H12 MMP C33 047 H12 MMP C33 047 H12 MMP C33 047 H335MMP C363 094 MMP C362 093 H330 MMP C361 077 0 ČESKOU VERZI TEXTU NALEZNETE NA **www.eduard.com** POD KATALOGOVÝM ČÍSLEM R0018 H330MMP C361 077 H330 MMP C361 077 H4 MMP C4 007 65 JBW EJ750 WHITE H11 MMP C62 001 BLACK H12 MMP C33 047 YELLOW H4 MMP C4 007 MEDIUM H335MMP DARK H330MMP OCEAN MMP SEA GRAY C363 094 GREEN C361 077 GRAY C362 093 17

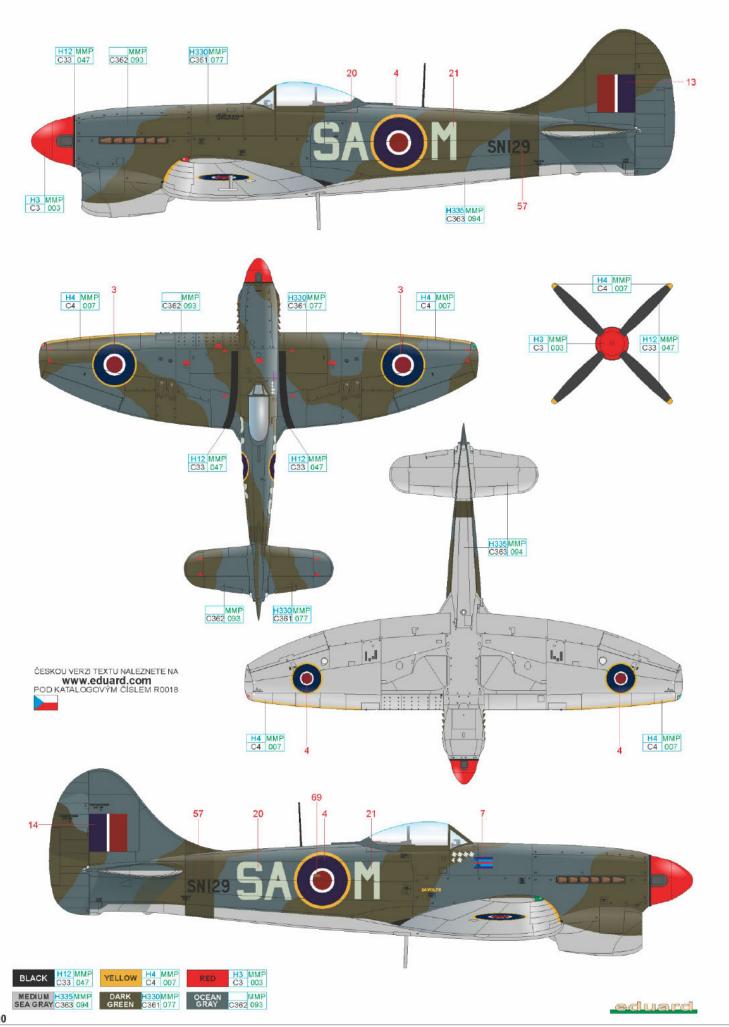
Tempest Mk.V Series 2, EJ558, flown by F/O B. F. Miller (USAAF), No. 501 Squadron, RAF Station Bradwell Bay, Great Britain, October 1944 MMP C362 093 H330 MMP C361 077 28 29 **EJ558** H74 MMP C368 080 H335 MMP C363 094 H4 MMP C4 007 MMP C362 093 H4 MMP C4 007 H12 MMP C33 047 H74 MMP C368 080 H12 MMP C33 047 H12 MMP C33 047 H335 MMP C363 094 MMP C362 093 H330MMP C361 077 ČESKOU VERZI TEXTU NALEZNETE NA **www.eduard.com** POD KATALOGOVÝM ČÍSLEM R0018 H4 MMP C4 007 H4 MMP C4 007 EJ558 BLACK H12 MMP C33 047 YELLOW H4 MMP C4 007 SKY H74 MMP C368 080 MEDIUM H335 MMP SEA GRAY C363 094 OCEAN MMP GRAY C362 093

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Tempest Mk.V Series 2, EJ536, flown by F/Lt Pierre Clostermann, No. 56 Squadron, B.80 Volkel, the Netherlands, early April 1945 MMP C362 093 H330 MMP C361 077 13 **EJ536** H12 MMP C33 047 H335 MMP C363 094 H4 MMP C4 007 H4 MMP C4 007 MMP C362 093 H330 MMP C361 077 H4 MMP C4 007 H12 MMP C33 047 H12 MMP C33 047 H12 MMP C33 047 H12 MMP C33 047 H335 MMP C363 094 H330MMP C361 077 ČESKOU VERZI TEXTU NALEZNETE NA **www.eduard.com** POD KATALOGOVÝM ČÍSLEM R0018 H335 MMP C363 094 H4 MMP C4 007 H335MMP C363 094 H4 MMP C4 007 YELLOW H4 MMP C4 007 BLACK H12 MMP C33 047

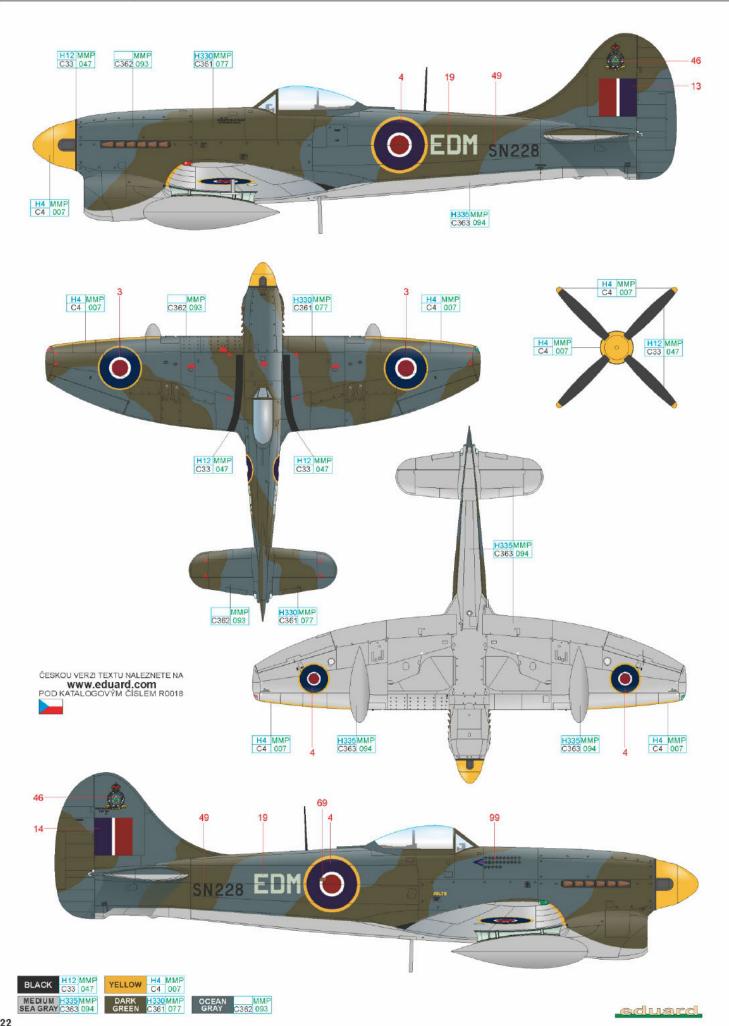
MEDIUM H335MMP SEA GRAY C363 094

DARK H330 MMP OCEAN MMP GREEN C361 077 GRAY C362 093 G Tempest Mk.V Series 2, SN129, flown by S/Ldr "Jimmy" Sheddan, CO of No. 486 Squadron, B.158 Lübeck, Germany, summer 1945

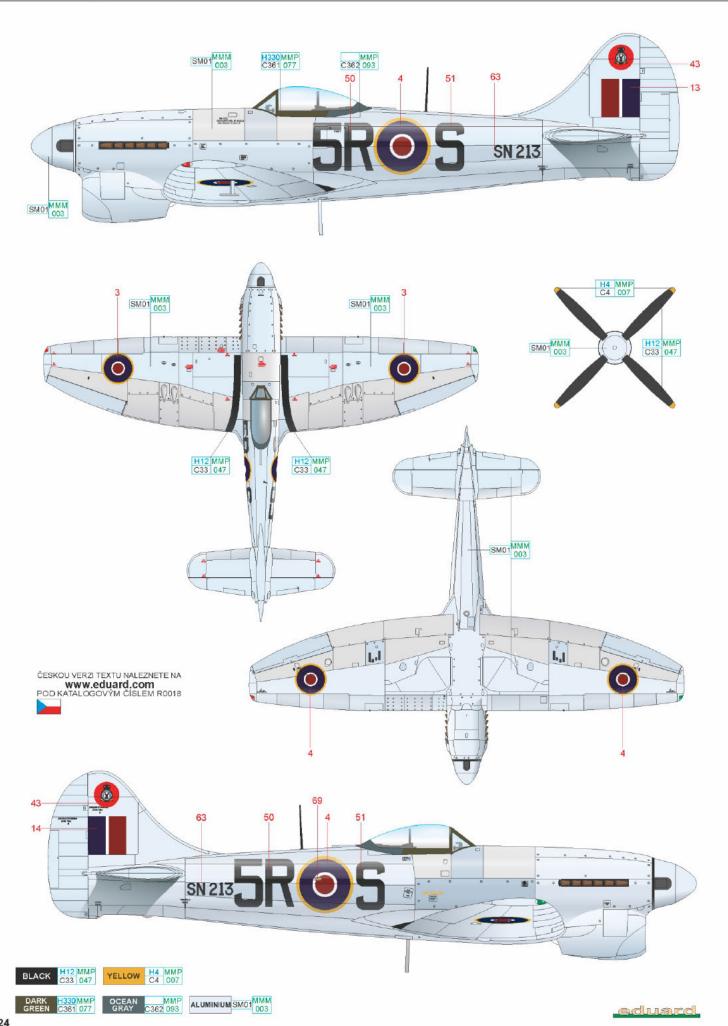


Tempest Mk.V Series 2, NV724, flown by F/Lt Pierre Clostermann, No. 3 Squadron, B.158 Lübeck, Germany, August 1945 MMP C362 093 100 13 NV724 H12 MMP C33 047 H335 MMP C363 094 8 H4 MMP C4 007 H4 MMP C4 007 MMP C362 093 H330 MMP C361 077 H4 MMP C4 007 H12 MMP C33 047 H12 MMP C33 047 H12 MMP C33 047 H12 MMP C33 047 H335 MMP C363 094 H330MMP C361 077 ČESKOU VERZI TEXTU NALEZNETE NA **www.eduard.com** POD KATALOGOVÝM ČÍSLEM R0018 H4 MMP C4 007 H4 MMP C4 007 45 BLACK H12 MMP C33 047 YELLOW H4 MMP C4 007 DARK H330 MMP OCEAN MMP GREEN C361 077 GRAY C362 093 eduard

Tempest Mk.V Series 2, SN228, flown by W/Cdr Ewan D. Mackie, CO of No. 122 Wing, B.160 Kastrup, Denmark, late summer 1945

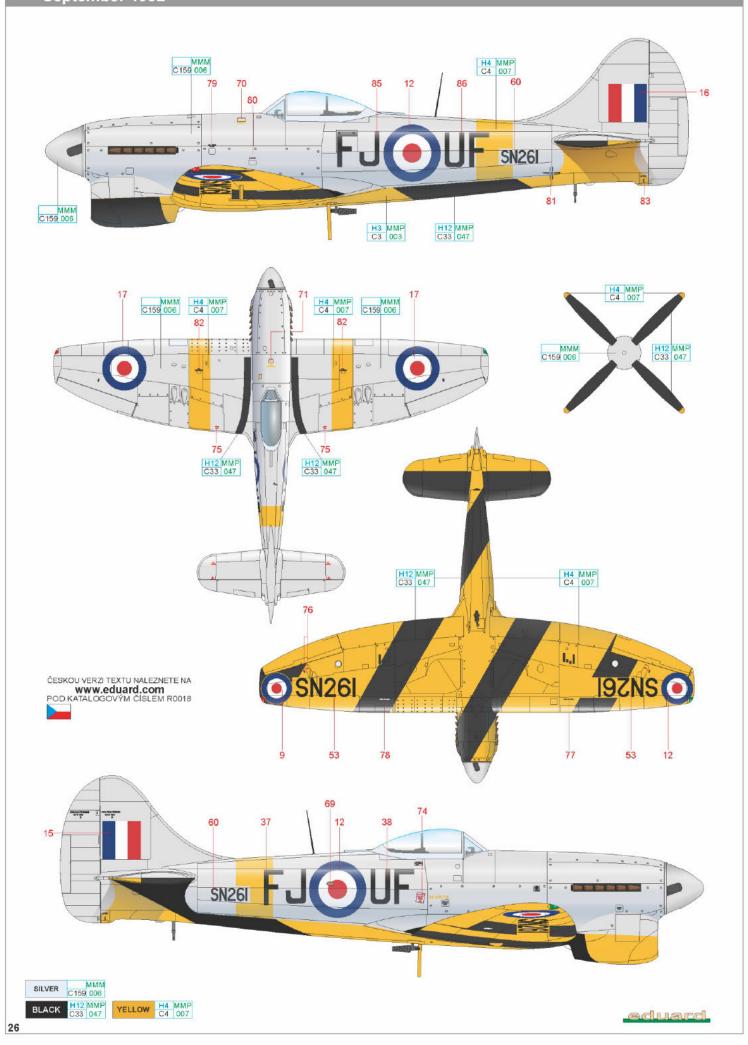


Tempest Mk.V Series 2, SN254, flown by S/Ldr. M. P. Killburn, CO of No. 56 Squadron, B.152 Fassberg, Germany, late 1945 MMP C362 093 10 5N254 H12 MMP C33 047 H335 MMP C363 094 H4 MMP C4 007 H330 MMP C361 077 H4 MMP C4 007 MMP C362 093 H12 MMP C33 047 H12 MMP C33 047 H12 MMP C33 047 H12 MMP C33 047 H335 MMP C363 094 H330 MMP C361 077 0 ČESKOU VERZI TEXTU NALEZNETE NA **www.eduard.com** POD KATALOGOVÝM ČÍSLEM R0018 H4 MMP C4 007 H4 MMP C4 007 100 102 105 104 103 89 88 BLACK H12 MMP C33 047 YELLOW H4 MMP C4 007 DARK H330 MMP OCEAN MMP GREEN C361 077 GRAY C362 093 23

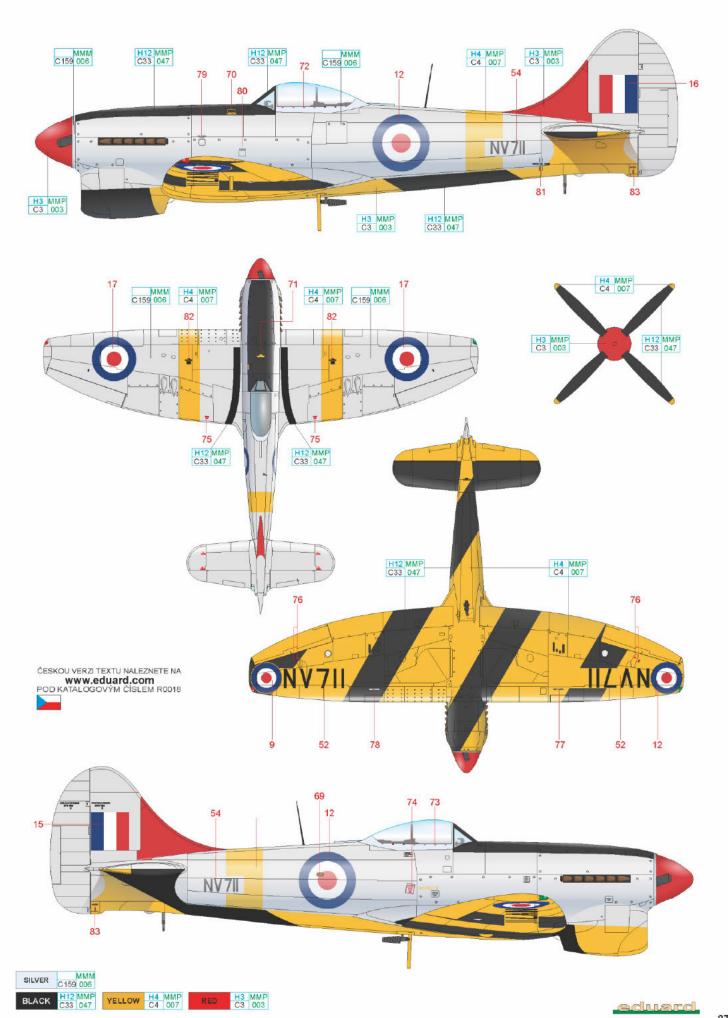


Tempest Mk.V Series 2, SN330, flown by S/Ldr C. H. Macfie, CO of No. 3 Squadron, Wunstorf, Germany, late 1947 H12 MMP C33 047 MMM C159 006 41 101 35 SN330 H6 MMP C6 004 H4 MMP C4 007 MMM C159 006 MMM C159 006 H12 MMP C33 047 H6 MMP C6 004 H12 MMP C33 047 H12 MMP C33 047 MMM C159 006 0 ČESKOU VERZI TEXTU NALEZNETE NA **www.eduard.com** POD KATALOGOVÝM ČÍSLEM R0018 12 36 12 42 35 101 15 SN330 BLACK H12 MMP C33 047 YELLOW H4 MMP C4 007 GREEN H6 MMP C6 004 SILVER C159 006

Tempest TT.5, SN261, Central Gunnery School, RAF Station Leconfield, Great Britain, September 1952



Tempest TT.5, NV711, No. 233 OCU, RAF Station Pembrey, Great Britain, July 1955



Tempest Mk.V

STENCILING POSITIONS

