# Tempest Mk.II early version eduard

### Scale Plastic Model Kit



## **ProfiPACK**

The piston engine aircraft development peaked at the end of World War II, pushing some remarkable designs into service. The Hawker Tempest was one of them. This high performing beast reached its full potential with radial engine power.

The story of the Tempest originated in an attempt to address the shortcomings that prevented its predecessor, the Hawker Typhoon succeeding as a fighter. The main design problem with the Typhoon was the thick wing with NACA 22 profile, offering lot of inner space for fuel and armament, but building drag rapidly with rising speed. Not surprisingly the wing was at the core of the changes in the development of the new fighter. The resulting design was originally supposed to retain the Typhoon name as the Mark II, but it was changed to Tempest finally. The new wing was 5 in (12,7 cm) thinner at the root and the planform changed in comparison with Typhoon wing to a near elliptical shape. As the new wing did not offer enough space for fuel, additional fuel tank of 76-gallon (288 l) volume had to be installed in the fuselage. The space was created between the firewall and the oil tank by moving the engine forward by 21 in (53,4 cm). Owing to that, the horizontal tail surfaces had to be enlarged. The Typhoon main undercarriage was replaced by a levered-leg Dowty design.

### Sabre first

An initial contract was placed for two prototypes based on the Typhoon airframes powered by Sabre IV engine, but, due to delays in the development of the latter, it was only installed in HM599, while HM595 used the older Sabre II. Concerns over the Sabre's future led to the consideration of other engines but there were only two other units powerful enough for use with the Tempest: The RR Griffon and radial Bristol Centaurus. The prototype order was increased to six – two with each engine type. Different marks were assigned to each engine variant. 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 a slightly improved version of the Sabre II (IIb) producing 2,400 hp (1,790 kW), thus 200 hp (147 kW) more than previous version. However, the Mk.V with the Sabre IIb was only intended as a stopgap solution until Sabre IV engines would be available; it would finally emerge as the main mark of the Tempest. The Mks. I, III and IV were not put into production, leaving the Mk.II as the "utimate Tempest" (although it would later be joined by the Mk.VI, powered by a developed Sabre engine). The HM595 prototype with Sabre II flew for the first time on September 2, 1942. The first production Tempest Mk.V made its maiden flight on June 21, 1943, already fitted with bubble canopy. Armed with four 20mm Hispano Mk.II cannon (200 rounds per gun) it 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 or Fw 190 (depending on mark).

### Radial power

The radial-powered prototype of Tempest Mk.II, LA602, made its maiden flight on June 28, 1943, just seven days after the first production Mk.V. This prototype was powered by Bristol Centaurus IV developing 2,520 hp (1,879 kW) but still had problems to resolve. The increase of power over the Napier Sabre was guite significant and allowed for better overall performance, as the weight remained roughly the same. One of the most evident problems, excessive vibration, was solved by changing original rigid eight-point engine mounts for rubber-packed six-point mounts. As there were several other shortcomings, the start of the production was delayed, although the first order had been placed as early as in September 1942, calling for 500 Mk.IIs to be built by Gloster company. Later it was changed for 330 Mk.IIs built by Bristol and 1,800 by Hawker and these logistical changes caused yet more delay. The first production Mk.II came off production line on October 4, 1944, only to serve for trials alongside next six production aircraft.

### Limited combat action

With the end of the war in Europe in sight, the orders for the Tempest Mk.II were cancelled or substantially reduced. Deployment to the Far East was postponed following the Japanese surrender and so the Tempest Mk.II did not see any wartime action. Only 50 of them were produced by the Bristol facility at Banwell, while Hawker added 402 aircraft. From 452 produced 180 were sent to India between 1945 and 1947. Some of them were to serve with four RAF squadrons (Nos. 5; 20; 30 and 152) based there, others with RIAF (Royal Indian Air Force) squadrons. When India and Pakistan achieved independence in 1947 the RAF squadrons were disbanded and their Mk. IIs were divided between the two countries. Both later purchased more Tempests from Hawker and from surplus RAF stocks and the type would see extensive use in the fighting over Hyderabad, Kashmir and Jammu states in 1947-49. In Europe, the Tempest Mk.II saw post-war service with two Fighter Command squadrons, as well as with three BAFO (British Air Forces of Occupation) squadrons in Germany. All these would be re-equipped with Vampire jets by 1949, except for No. 33 Sgn whose Mk. IIs would see combat use in 1949-51 during RAF operations against the communist guerillas in Malaya.

### This kit: Tempest Mk.II early version

Although some sources distinguish between the fighter and fighter--bomber versions of Tempest Mk.II, it was the same aircraft with provisions for the wing racks to carry rockets or bombs; attachment points for drop tanks were also incorporated in the structure of the wing. The Mk.IIs were basically produced in two batches, with the first one split between two facilities. The Banwell Bristol factory made 50 of them (MW374-MW423), while the Langley Hawker factory added 100 (MW735-MW778; MW790-MW835; MW847-MW856). These aircraft were finished without the tropical filter, recognizable by the louvred panel in front of the windshield. They also lacked the water cylinders in the cockpit. Both features were typical for the later series (serials starting with PR prefix). Seven of the early "MW" aircraft were later converted to the full tropical standard and allocated to RAF units in Germany, three of them are amongst the selected markings of this model kit. Most of the remaining MW-series Tempest were sold back to Hawker, modified to tropical standard, and sold to India or Pakistan.

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 \* 記号の説明







**BROUSIT** 



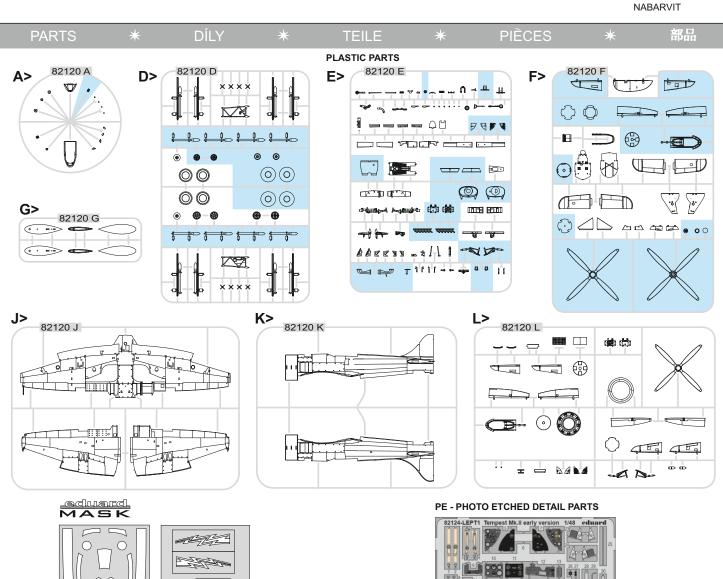
VYVRTAT OTVOR

SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ



(2) REVERSE SIDE **ODŘÍZNOUT** OTOČIT

APPLY EDUARD MASK AND PAINT POUŽÍT EDUARD MASK



**FARBEN** 

-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto díly nepoužívejte při stavbě. - 使用しない部品

BARVY

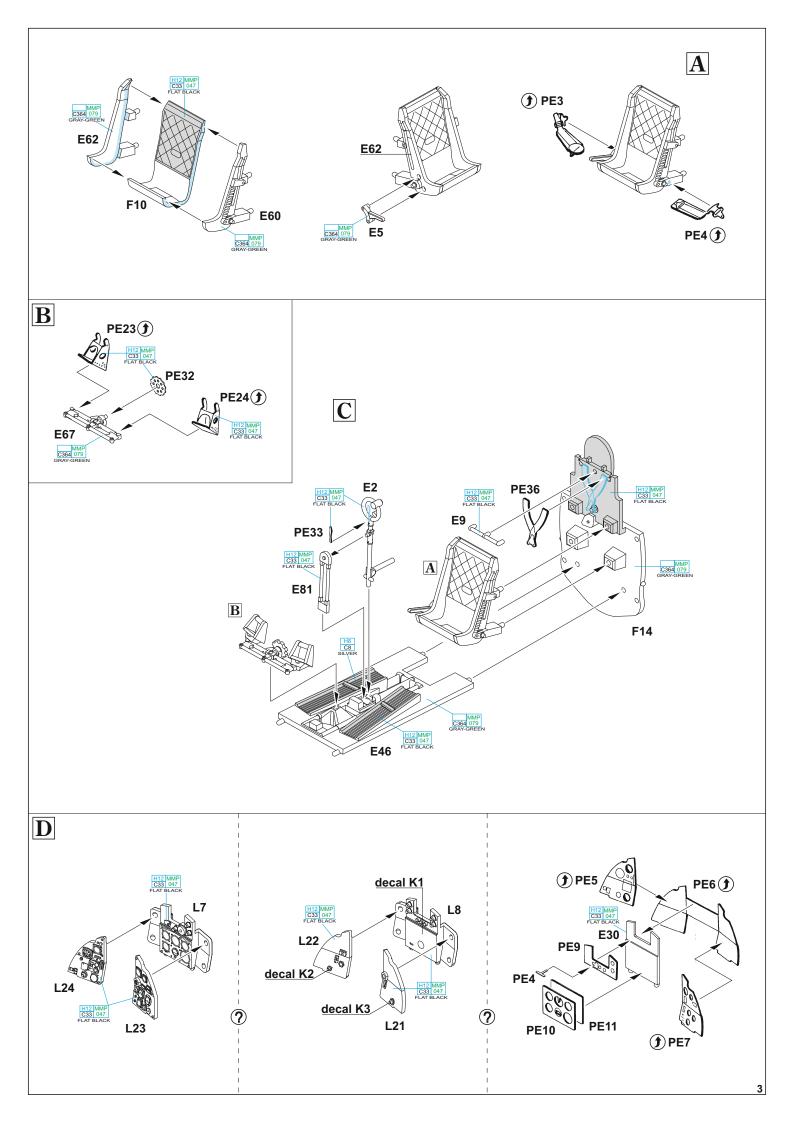
GSi Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H3	C3	MMP-003	RED
H4	C4	MMP-007	YELLOW
H8	C8		SILVER
H11	C62	MMP-001	FLAT WHITE
H12	C33	MMP-047	FLAT BLACK
H52	C12	MMP-091	OLIVE DRAB
H74	C368	MMP-080	SKY
H77	C137	MMP-040	TIRE BLACK
H90	C47		CLEAR RED
H94	C138		CLEAR GREEN
H307	C307	MMP-074	GRAY

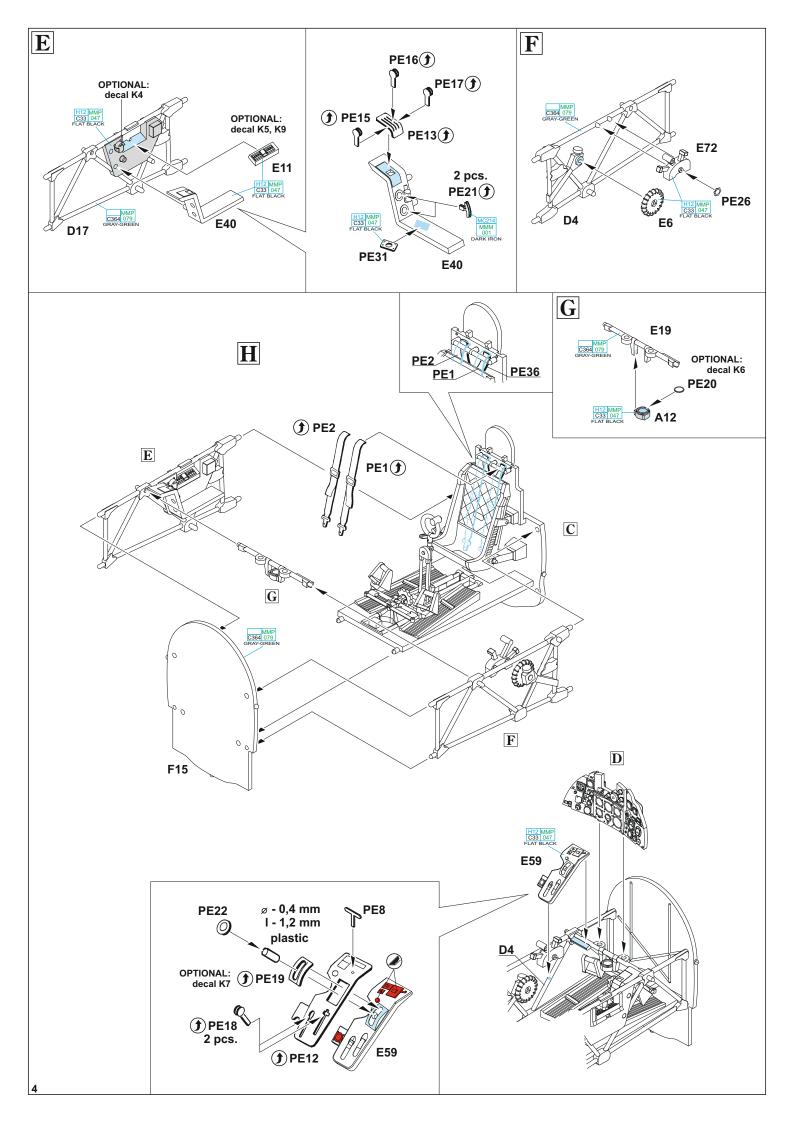
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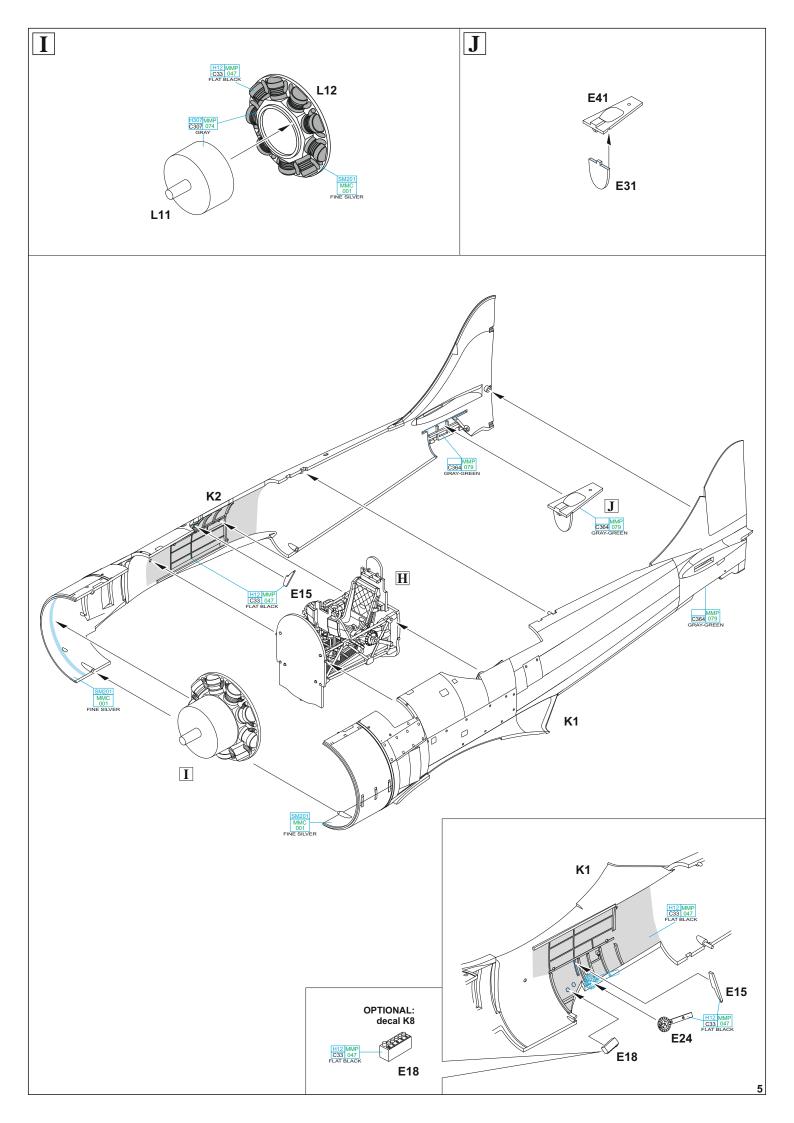
GSi Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H328	C328		BLUE
H330	C361	MMP-077	DARK GREEN
H335	C363	MMP-094	MEDIUM SEAGRAY
	C362		OCEAN GRAY
	C364	MMP-079	AIRCRAFT GRAY-GREEN
Mr.METAL COLOR		METALLICS	
MC213		MMM-006	STEEL
MC214		MMM-001	DARK IRON
MC218		MMM-003	ALUMINIUM
Mr.COLOR SUPER METALLIC		METALLICS	
SM201		MMC-001	SUPER FINE SILVER

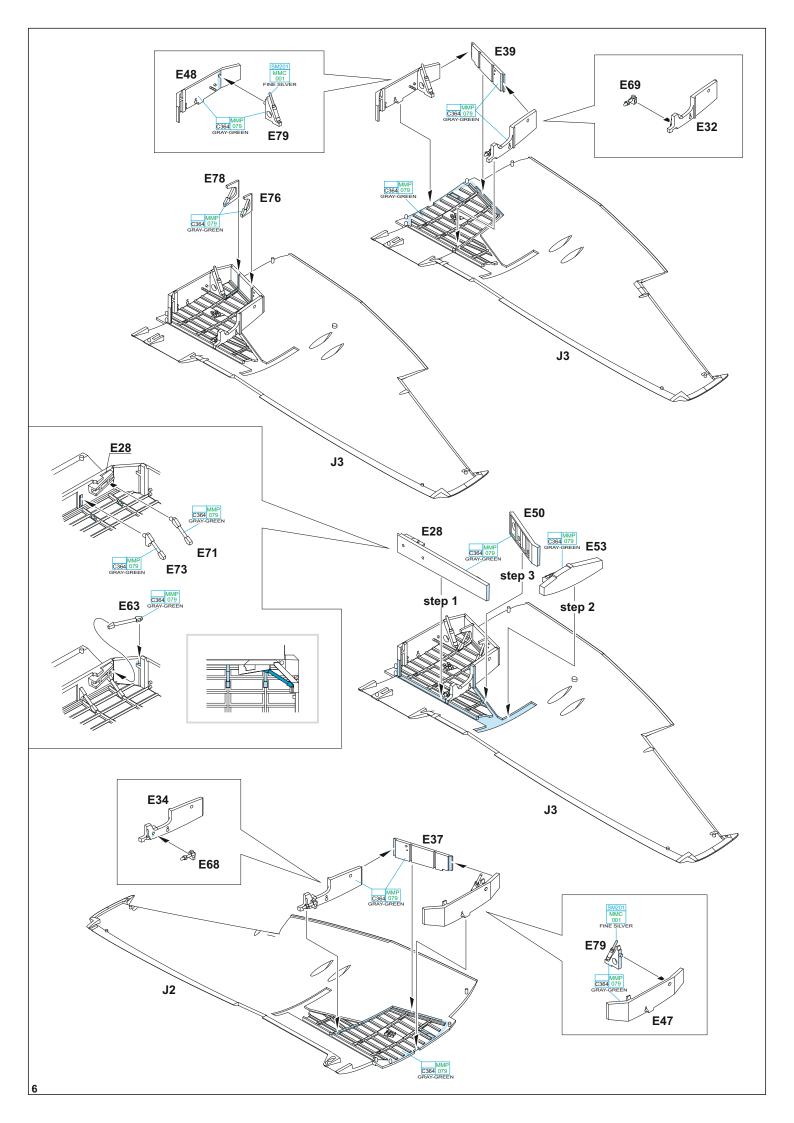
**PEINTURE** 

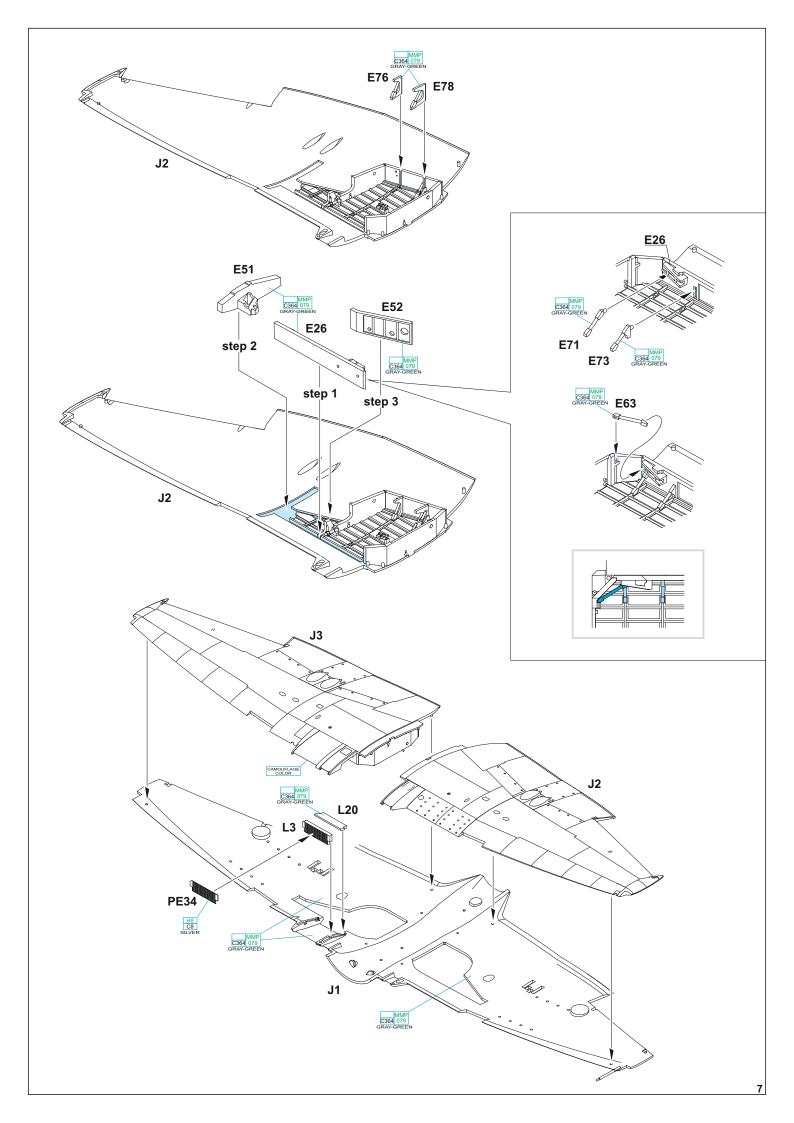
**COLOURS** 

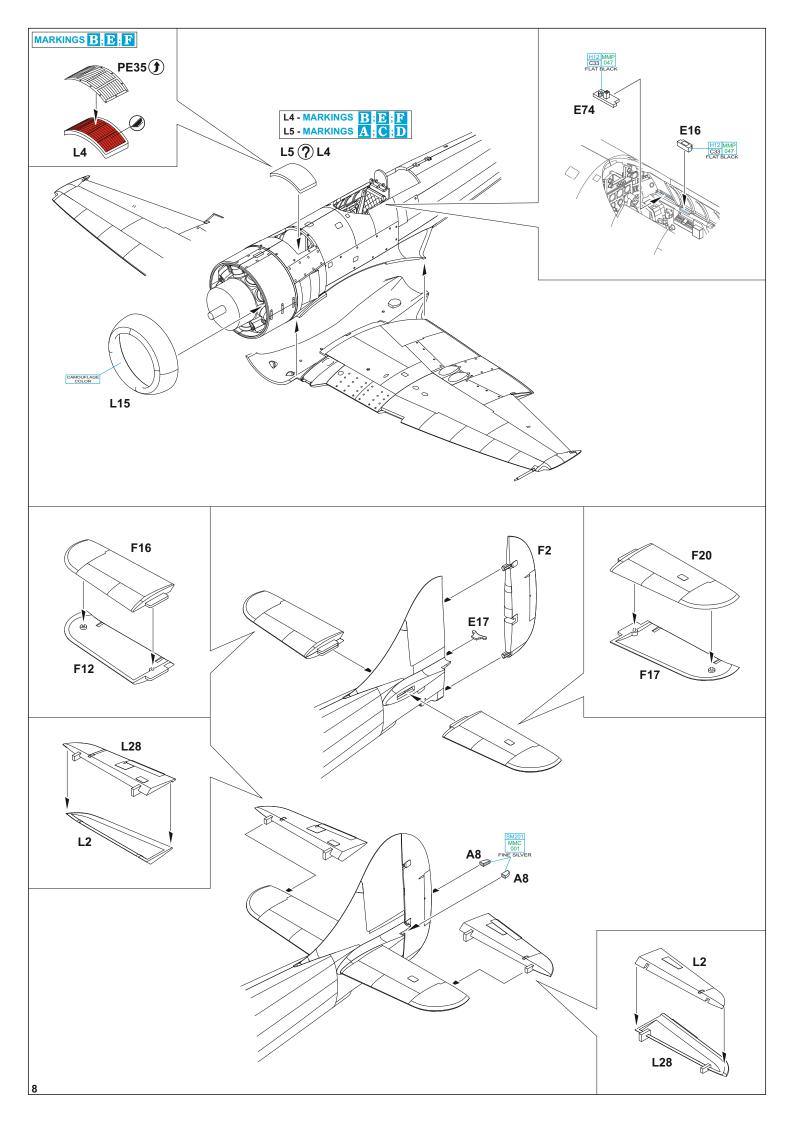


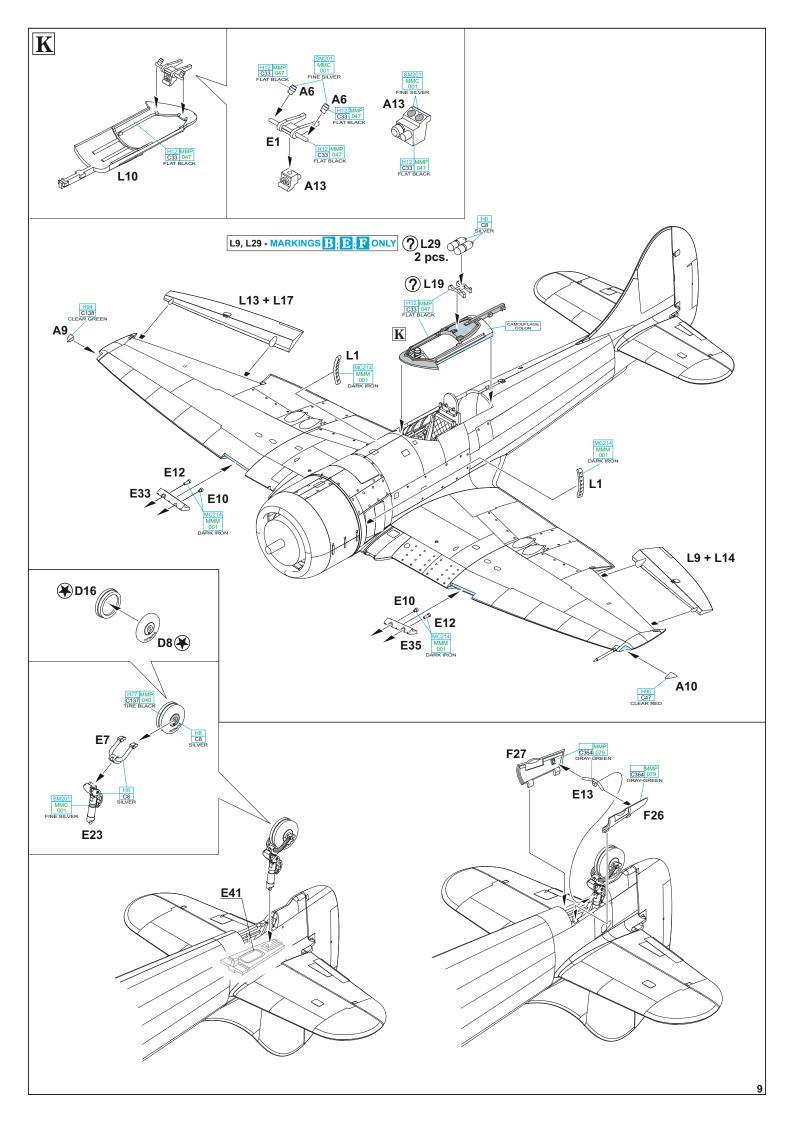


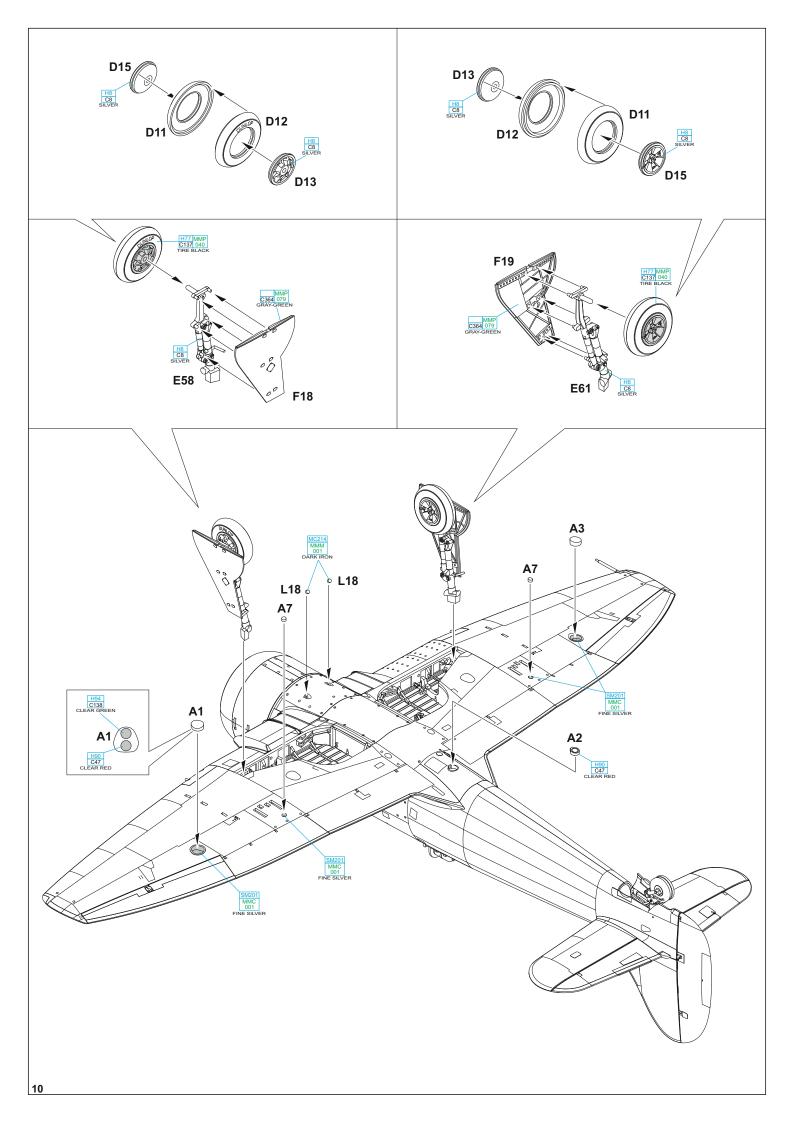


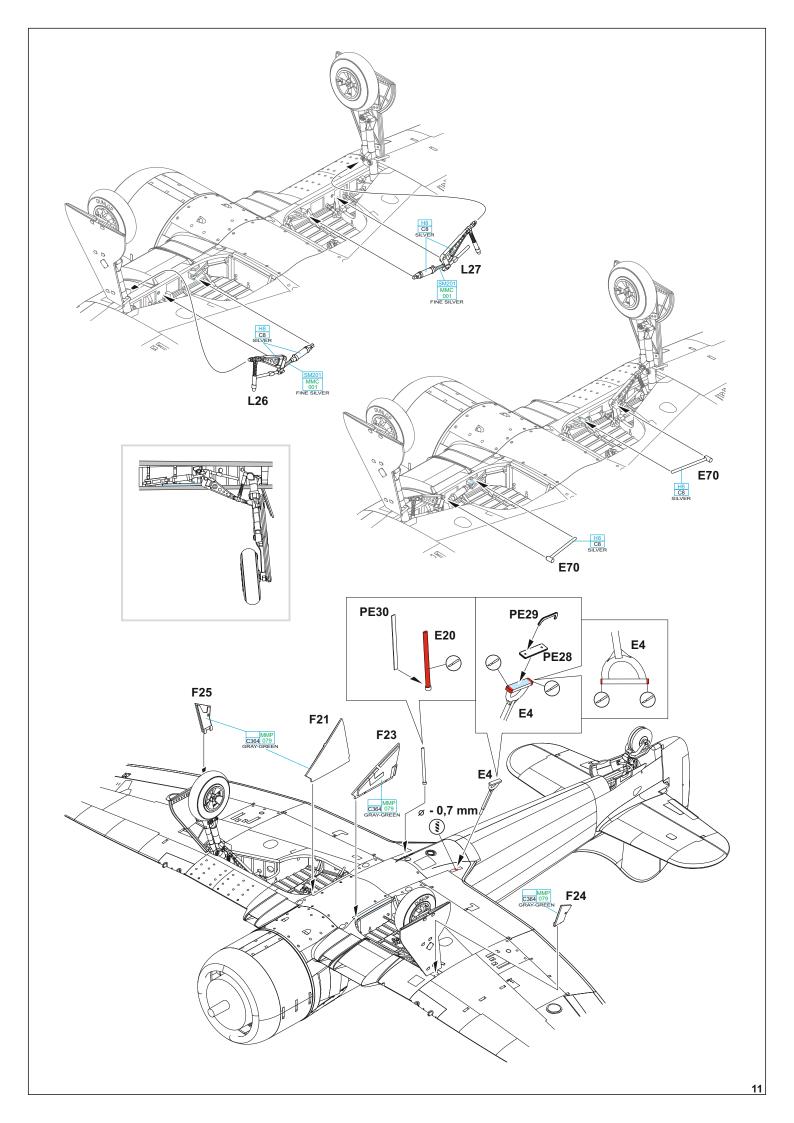


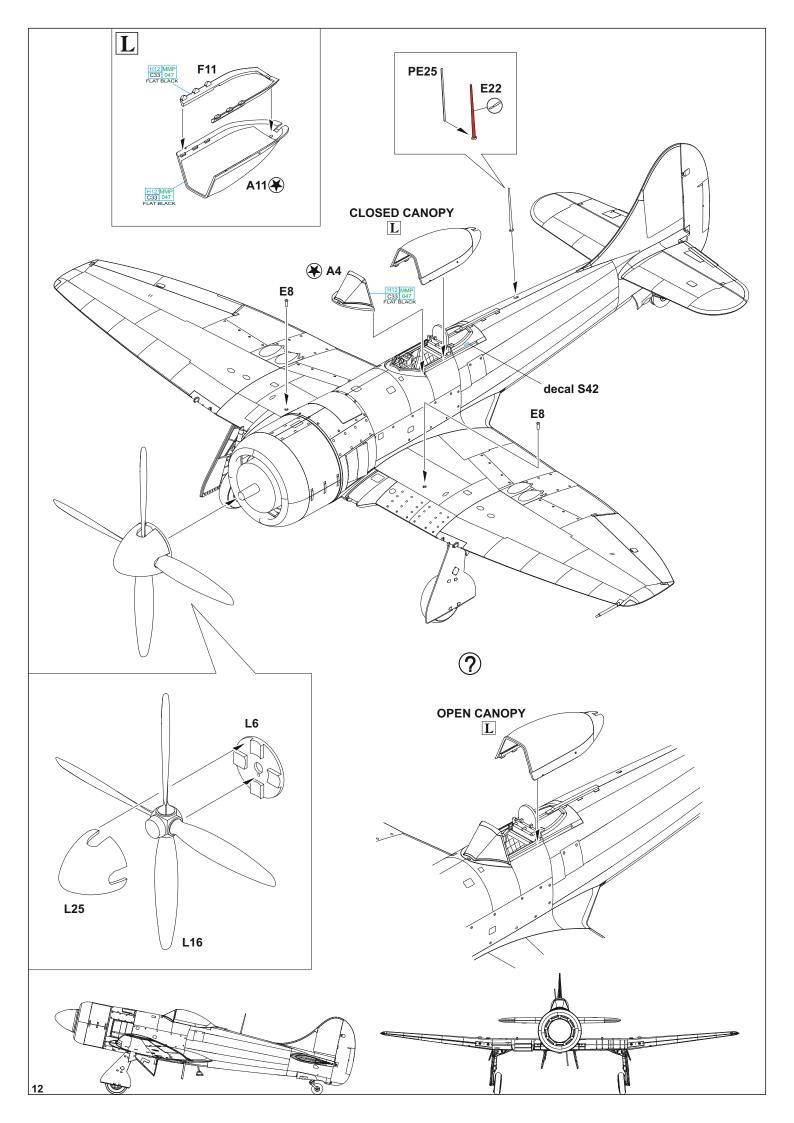


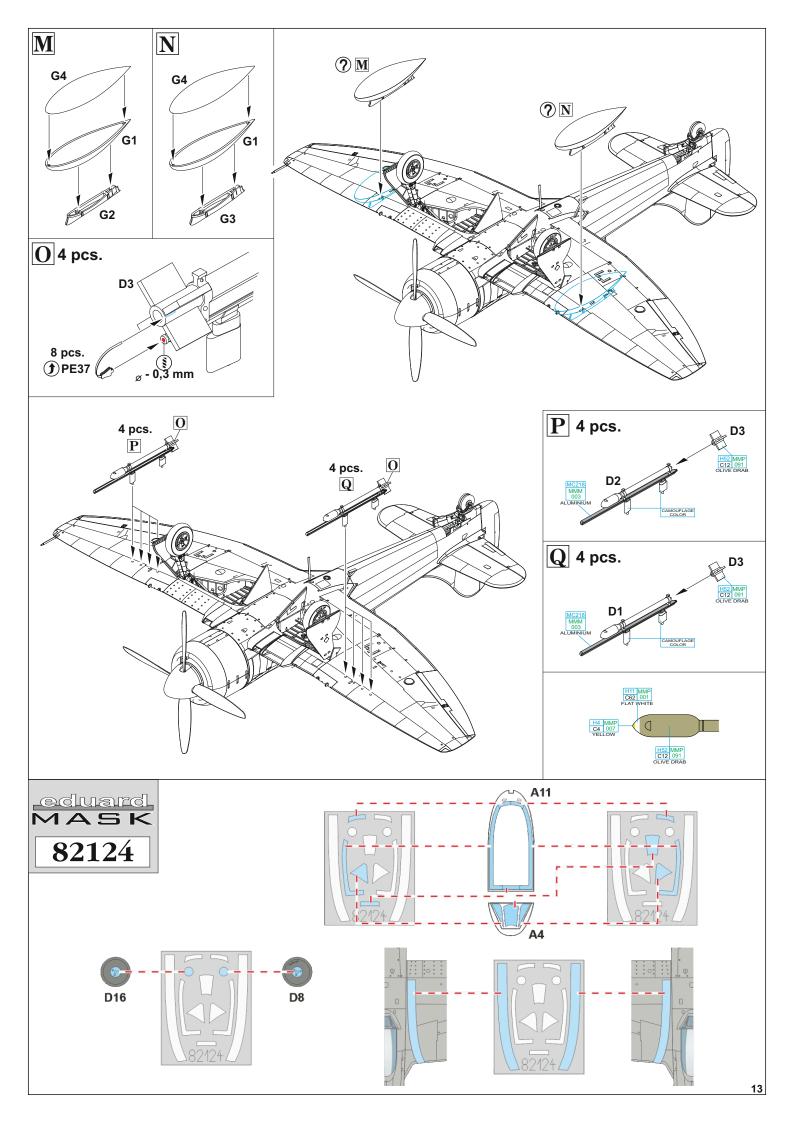






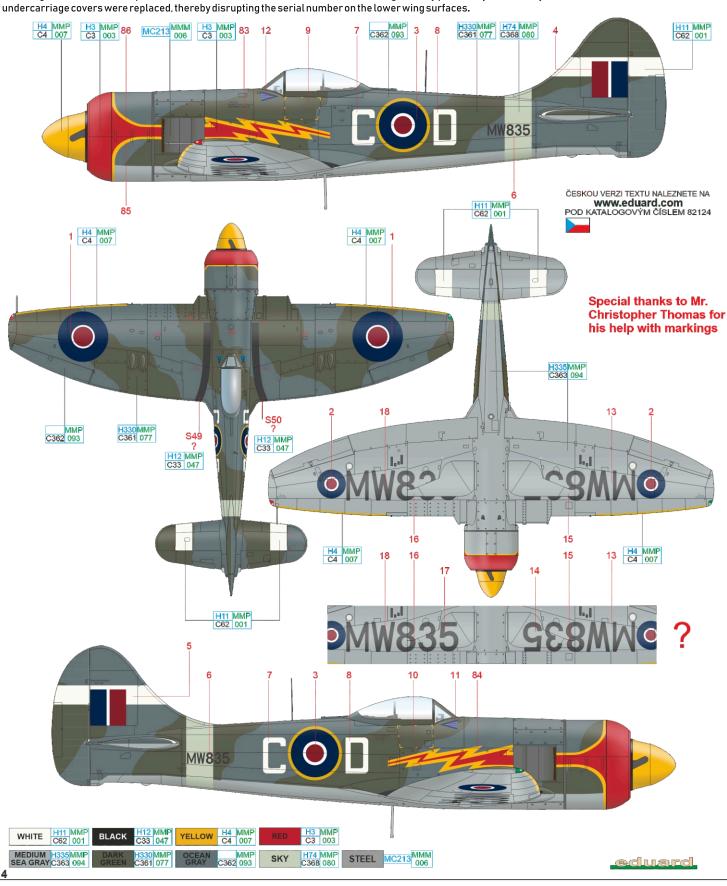






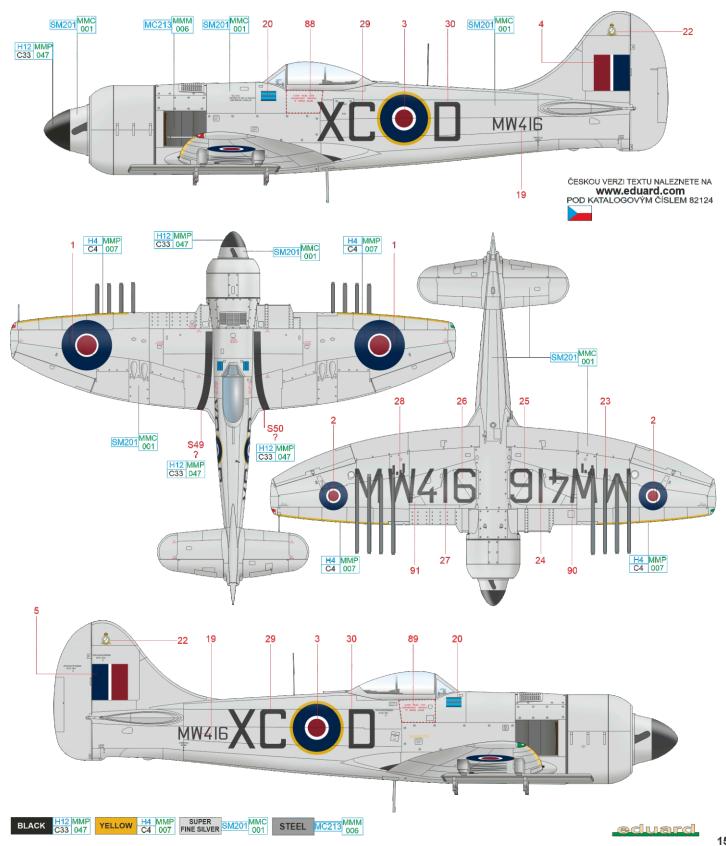
## MW835, W/Cdr Charles H. Dyson, Wing Commander Flying Southern Sector, RAF Middle Wallop, Hamshire, United Kingdom, April 1946

Charles Harold Dyson was born in Jhansi, India (July 8, 1913) and began his RAF career in 1937. After training he became a member of No. 33 Sqn and carried out attacks on Arab insurgents in Palestine (from Ramla base). His part in these operations earned him a DFC. He remained in the Middle East after the outbreak of WWII and on December 11, 1940, he encountered a group of six Italian Cr.42s and reportedly shot them all down. However, he had to make an emergency landing himself, returning to the unit six days later. Dyson received a Bar to his DFC for this achievement to which he added two more Cr.42 kills. The No. 33 Sqn moved to Greece and Dyson was shot down there by an Italian G.50 on March 23 and then by AA fire on April 5. He managed to bail out in both cases. After the fall of Greece, Dyson served as a fighter pilot in Egypt but was not involved in any further combat action. Following his return to the UK he had short spells with the CGS and AFD and then spent the rest of the war instructing and commanding Armament Practice Camps and squadrons within Tactical Exercise Units. After the war he remained in the service until October 1963. By the time he became Wing Commander of the Southern Sector of Fighter Command, he had taken over the aircraft of R. P. Beamont and added stylized lightning bolt on the fuselage – a most unusual marking on RAF aircraft at that time. The colors of it were probably yellow and red and the personal code was white. After a short period of time, the lightning bolt was removed, leaving only a red wedge with no trim; the spinner was now half black/half white whereas it is thought it may previously have been yellow. For unknown reasons, the main undercarriage covers were replaced, thereby disrupting the serial number on the lower wing surfaces.



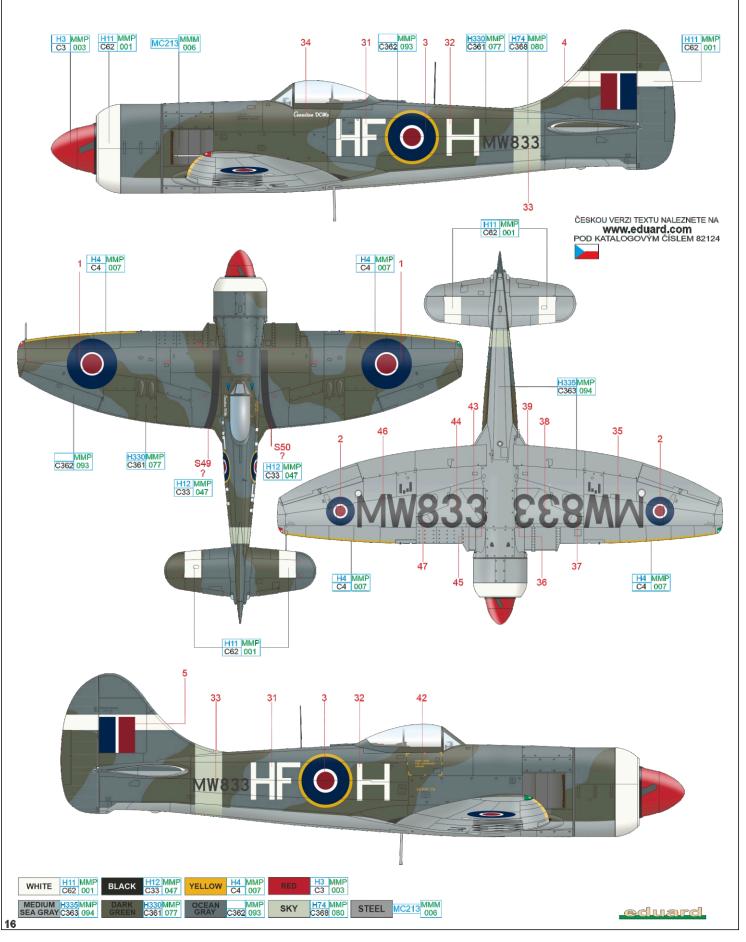
## MW416, S/Ldr Henry Ambrose, No. 26 Squadron, RAF Fassberg, Germany, May 1947

Henry "Poppa" Ambrose joined No. 257 Sqn in 1941 as a Flight Sergeant and he exchanged the Hurricane for the Typhoon in 1942. With the latter, he was mostly flying defensive patrols over the English Channel, watching for and intercepting low-flying Fw 190s. Ambrose served with the unit until 1943 when, having completed his operational tour, he was posted 'on rest', retraining as a Fighter Controller, serving in this role during Operation Neptune (the maritime part of Operation Overlord) on June 6, 1944, and subsequent operations over Normandy. In August 1944 he returned to operational flying, joining No. 175 Sqn as a flight commander, flying rocket-armed Typhoons. In February 1945 he was promoted to command another Typhoon RP unit, No. 181 Sqn. After the war Ambrose continued in the RAF and from January 1946 commanded No. 41 Sqn which was redesignated No. 26 Sqn on April 1. Ambrose continued as commanding officer until May 1947. His Tempest Mk. II was from the first 50-aircraft series produced at Banwell (Bristol) and thus did not originally have a tropical filter. It was later fully tropicalized with the tropical air filter and water cylinders in cockpit, as were six other early series aircraft delivered to the RAF (most of these early Tempests were fully modified and sold to India or Pakistan). MW416 was in service with the unit from July 1946 to September 1948 and was allocated to  $squadron\,commanders; it\,was\,flown\,successively\,by\,Ambrose,\,Brandt,\,Mitchell,\,and\,Frost.\,The\,entire\,aircraft\,was\,painted\,with\,a\,cellulose\,silver\,paint\,known$ as "Aluminium", officially Silver Dope spec. 33B/317 516 Type C (Cellulose). The aircraft sported Squadron Leader pennants on both sides of the fuselage, and later carried unit badge on the top of the fin.



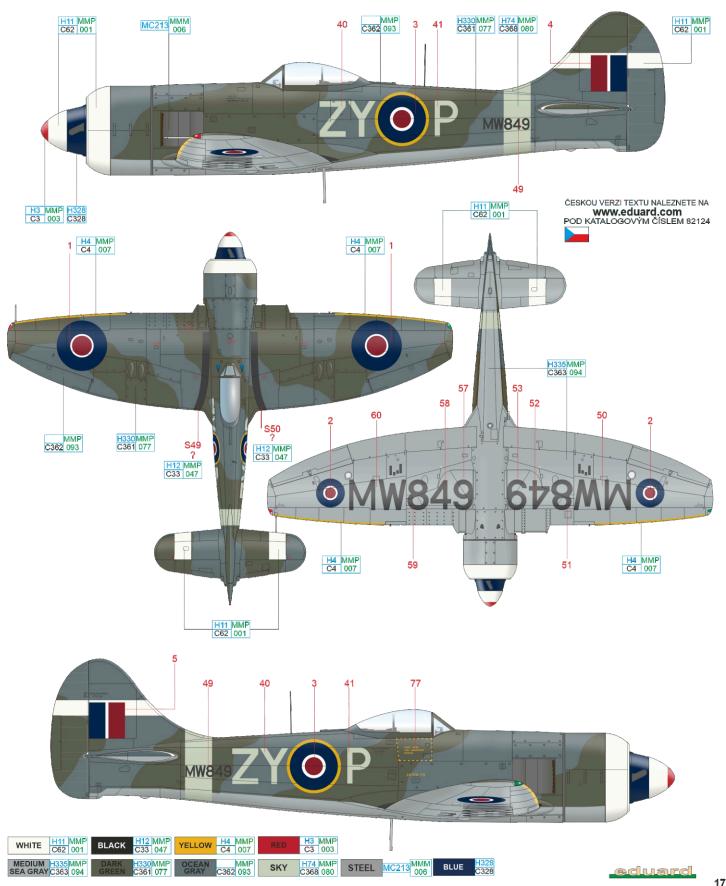
### MW833, No. 183/54 Sqn, RAF Chilbolton, Hampshire, United Kingdom, June 1946

The aircraft, named "Canadian DCMs", following a donation by that organisation, served with No. 183 Sqn, which was redesignated No. 54 Sqn on November 15 as the RAF reorganised post-war and reduced the number of operational units. Like most other squadrons with higher numbers, it thus took on the  $designation of an older and more traditional unit. No. 54 Sqn\ was one of only two squadrons that used Tempest\ Mk. IIs\ within\ Fighter\ Command\ and\ so\ they\ were$ based in the United Kingdom. The aircraft had the standard camouflage scheme of Ocean Grey and Dark Green on the upper surfaces and Medium Sea Grey on the lower surfaces. The rear fuse lage stripe and code markings were in Sky, the stripes on the nose, fin, horizontal stabilizer and the spinner were white. After the lower surfaces are the rear fuse lage stripe and code markings were in Sky, the stripes on the nose, fin, horizontal stabilizer and the spinner were white. After the lower surfaces are the rear fuse lage stripe and code markings were in Sky, the stripes on the nose, fin, horizontal stabilizer and the spinner were white. After the lower surfaces are the rear fuse lage stripe and code markings were in Sky, the stripes on the nose, fin, horizontal stabilizer and the spinner were white. After the lower surface is the lower surface surface and the spinner were white. After the lower surface surfits service with the squadron, MW833 underwent overhaul at Langley (Hawker factory) and was stored at No. 6 MU Brize Norton until August 1951 when it was handed over for scrapping.



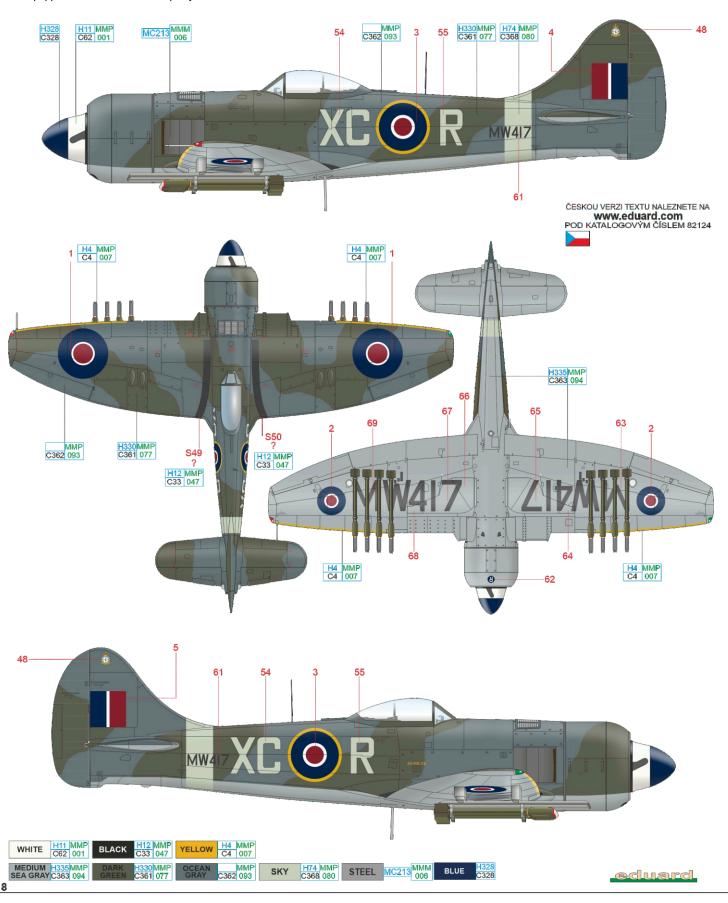
## MW849, No. 247 Sqn, RAF Chilbolton, Hampshire, United Kingdom, September 1945

No. 247 Squadron was formed at the end of the WWI, on August 20, 1918, by the amalgamation of No. 336 and No. 337 Flights of RNAS (Royal Naval Air Service) but was disbanded just five months later on January 22, 1919. The unit was reactivated on August 1, 1940 and was tasked with the defence of the south-western part of the British coastline, including the ports of Plymouth and Falmouth. As it was equipped with obsolescent Gloster Gladiator biplanes, chances of its  $pilots a chieving \, success \, against \, German \, opponents \, were \, slim. The \, unit \, converted \, to \, the \, Hawker \, Hurricane \, as \, early \, as \, December \, 1940 \, and \, undertook \, both \, day \, and \, the \, Hawker \, Hurricane \, as \, early \, as \, December \, 1940 \, and \, undertook \, both \, day \, and \, the \, Hawker \, Hurricane \, as \, early \, as \, December \, 1940 \, and \, undertook \, both \, day \, and \, the \, Hawker \, Hurricane \, as \, early \, as \, December \, 1940 \, and \, undertook \, both \, day \, and \, the \, Hawker \, Hurricane \, as \, early \, as \, December \, 1940 \, and \, undertook \, both \, day \, and \, the \, Hawker \, Hurricane \, as \, early \, as \, December \, 1940 \, and \, undertook \, both \, day \, and \, the \, Hawker \, Hurricane \, as \, early \, as \, December \, 1940 \, and \, undertook \, both \, day \, and \, the \, Hawker \, Hurricane \, as \, early \, as \, December \, 1940 \, and \, undertook \, both \, day \, and \, the \, Hawker \, Hurricane \, as \, early \, as \, December \, 1940 \, and \, the \, Hawker \, Hurricane \, as \, December \, 1940 \, and \, the \, Hawker \, Hurricane \, and \, the \, Hawker \, Hurricane \, and \, the \, Hawker \, Hurricane \, as \, December \, 1940 \, and \, the \, Hawker \, Hurricane \, And \, th$  $and night missions. The pilots did not claim their first victory until July 7, 1941, when a \textit{Ju}\,88 \,was \,shot \,down. \,After \,re-equipment \,with \,Typhoons, the unit flew \,only in the pilots and the pilots and the pilots and the pilots are the pilots are the pilots and the pilots are the$ day missions and was among the busiest in ground attack with RP during the days prior to the Operation Overlord through to the end of hostilities. In the summer of 1945 No. 247 Sqn was removed from BAFO (as 2nd TAF had been renamed) and began preparations to be sent to the Far East in Burma. To this end, it was the second squadron to receive the Tempest Mk. II. However, the surrender of Japan changed the situation, the unit remained in the UK and became the firstunit to be rearmed with the de Havilland Vampire jets. The MW849 had the standard Day Fighter Scheme camouflage and sported white stripes on the rudder and horizontal stabilizer, the propeller spinner had three-tone colour, probably red, white, and blue, corresponding with RAF roundel.



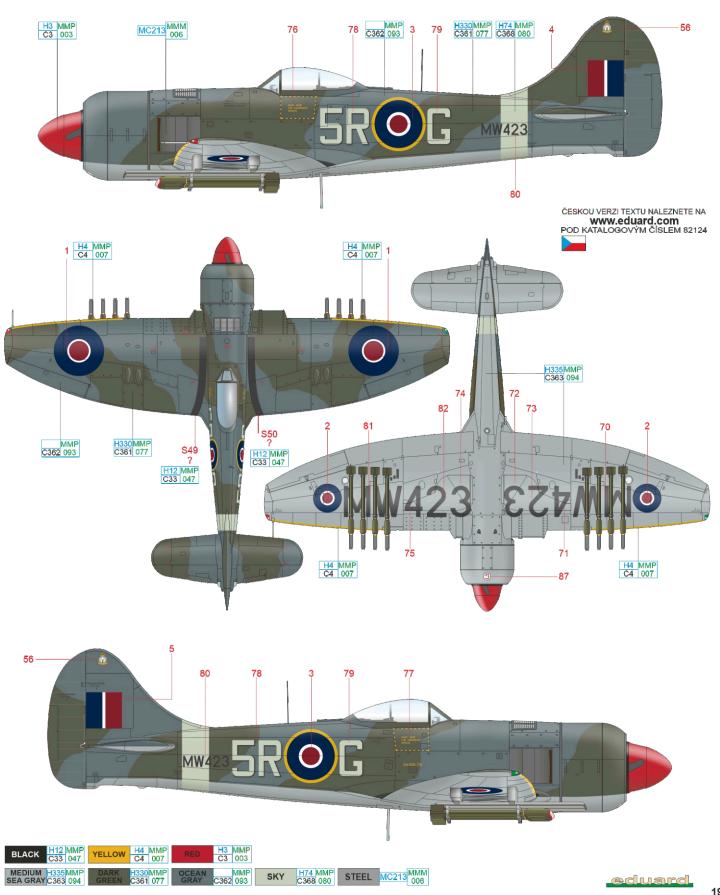
### MW417, No. 26 Sqn, RAF Wunstorf, Germany, 1947

As part of the post-war RAF downsizing the former No. 41 Sqn was redesignated No. 26 Sqn. This occurred on April 1, 1946, when the unit was based at Wunstorf Air Base in Germany. No. 26 Squadron was formed at Netheravon (UK) on October 8, 1915, and subsequently sent to East Africa, where it operated from Mombasa airfield until February 1918, when it returned and was disbanded in July. The reactivation came October 11, 1927, as a single squadron of Armstrong Whitworth Atlas machines. No. 26 Sqn started the war with Westland Lysander aircraft flying reconnaissance missions with them until February 1941, when received Curtiss Tomahawks as the replacement, these being in turn changed for Mustang Is (and briefly Spitfires, as artillery spotters during the invasion of Normandy). The war ended in Germany, where the squadron (by the time equipped with Spitfire Mk,XIs and XIVs) was also disbanded and subsequently reformed from No. 41 Sqn. This aircraft is interesting in that it has a fuselage code designation unusually outlined with a thin black line. The propeller spinner was blue and white, and the unit emblem was painted on top of the vertical fin. The squadron motto "N Wagter in der Lug" is in Afrikaans, as the unit was originally made up of South Africans. It stands for "Air Patrol" and the emblem features the head of an antelope. Tempests Mk.II were used by the unit until April 1949, when it re-equipped with de Havilland Vampire jets.



### MW423, No. 33 Sqn, RAF Changi, Singapore, August 1949

No. 33 Squadron was stationed in Germany after the war. From there it was shipped aboard HMS Ocean to the Far East in early July 1949. The unit operated in the region until 1970, flying sorties against Communist guerrillas in Malaya until 1960. It was also the last RAF operational unit to fly Tempests Mk.II. Its pilots made last sortie with them on June 6, 1951, then started to exchange them for de Havilland Hornet F.3s. Originally allocated to No. 26 Sqn, MW423 was transferred to No. 33 Sqn in April 1949 and was also one of seven early production Mk.IIs converted to the "full tropical" standard for the RAF. Interestingly, it featured an escape panel warning marking on the port side of the fuselage (usually only seen on the starboard side). The top of the fin was decorated with the unit's emblem of a deer head and with the simple motto "Loyalty". It was in use until January 20, 1950, when an undercarriage failure made a "wheels-up" landing necessary. Although repaired it saw no further active service.



## Tempest Mk.II

## STENCILING POSITIONS

