

# Tempest Mk.II

eduard

1/48 Scale Plastic Model Kit

**WEEKEND**  
edition



item No. 84190

**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.**

The story of the Tempest originated in an attempt to address the shortcomings that prevented its predecessor, the Hawker Typhoon succeeding as a successful 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 becoming more and more obvious the result would be a new plane. And so, the name was changed to Tempest, following the traditional path of Hawker to use the "wind" names for its fighters.

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 Mk. I, III and IV were not put into production, leaving the Mk.II as the "ultimate 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). The first squadron to receive Tempest Mk.Vs was No. 486 in January 1944.

## 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 quite 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 to correct, 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. Finally, 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 air forces of the two countries. Both nations later purchased more Tempest IIs 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 Sqn whose Mk.IIs would see combat use in 1949-51 during RAF operations against the communist guerrillas in Malaya.

## This kit: Tempest Mk.II

Although some sources distinguish between the fighter (F) and fighter-bomber (FB) versions of Tempest Mk.II, it was in fact 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. Most of the remaining MW series Tempests were sold back to Hawker, modified to tropical standard, and sold to India or Pakistan.

ATTENTION



UPOZORNĚNÍ



ACHTUNG



ATTENTION



注意



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 započítím stavby si pečlivě prostudujte stavební návod. Při používání barev a lepidel pracujte v dobře 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

OPTIONAL  
VOLBABEND  
OHNOUŤSAND  
BROUSITOPEN HOLE  
VYVRTAT OTVORSYMETRICAL ASSEMBLY  
SYMETRICKÁ MONTÁŽREMOVE  
ODRÍZNOUTREVERSE SIDE  
OTOČITAPPLY EDUARD MASK  
AND PAINT  
POUŽÍT EDUARD MASK  
NABARVITPLEASE, CHECK THE LATEST VERSION OF THE INSTRUCTION ON [www.eduard.com](http://www.eduard.com)

PARTS



DÍLY



TEILE

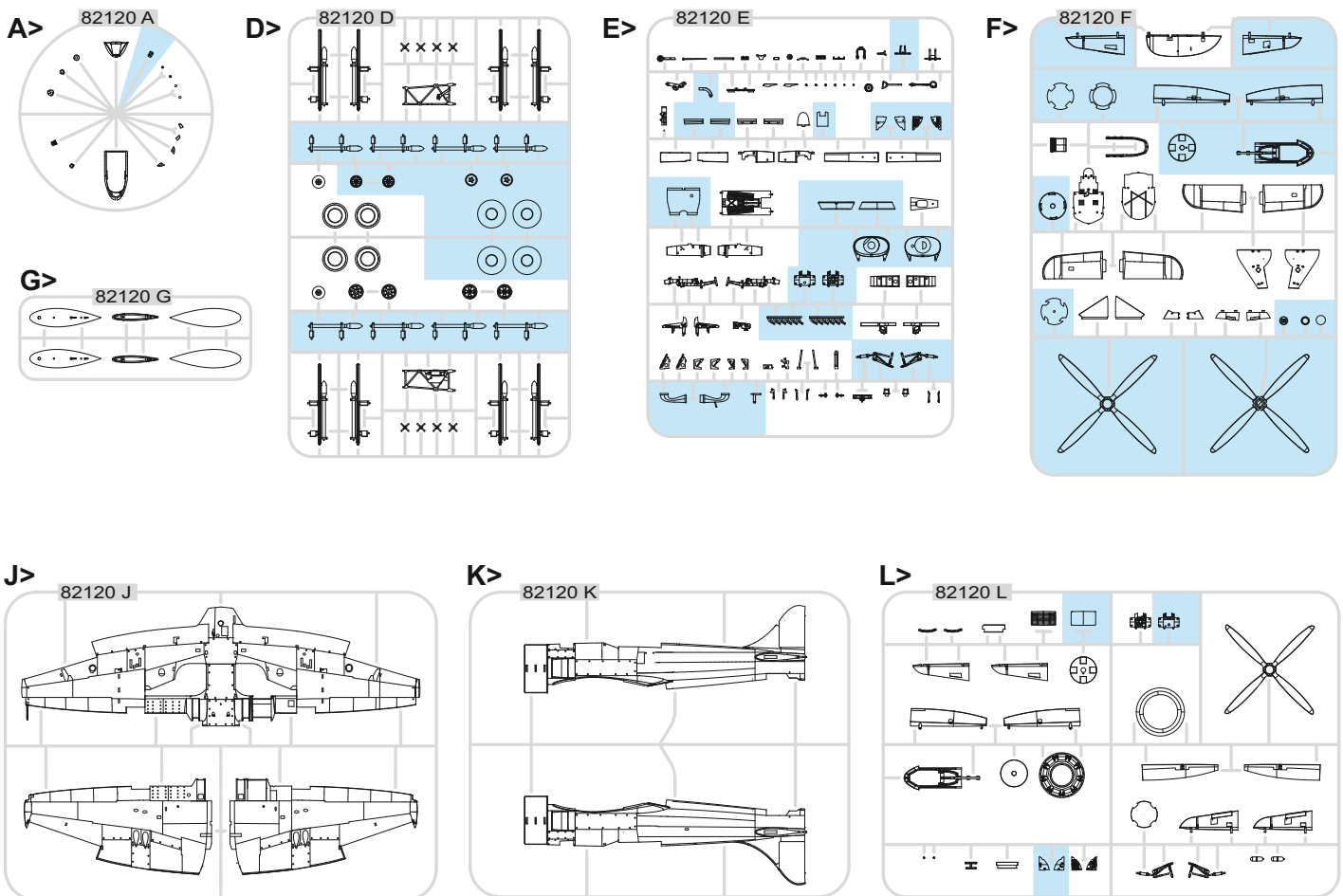


PIÈCES



部品

## PLASTIC PARTS



-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

COLOURS



BARVY



FARBEN



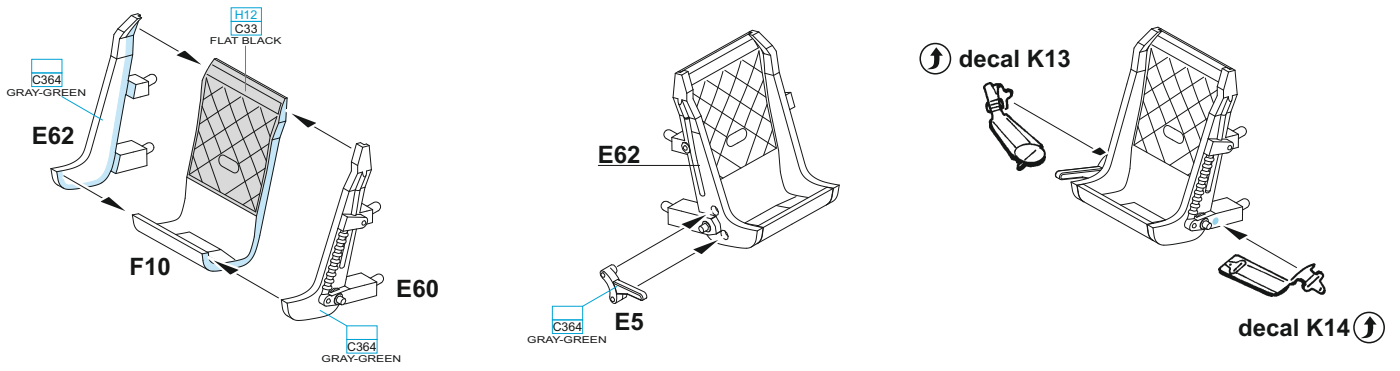
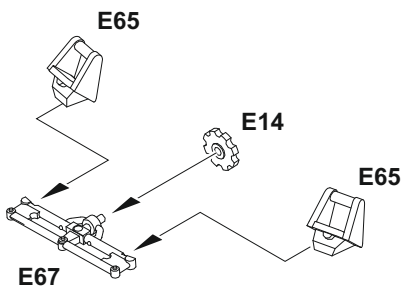
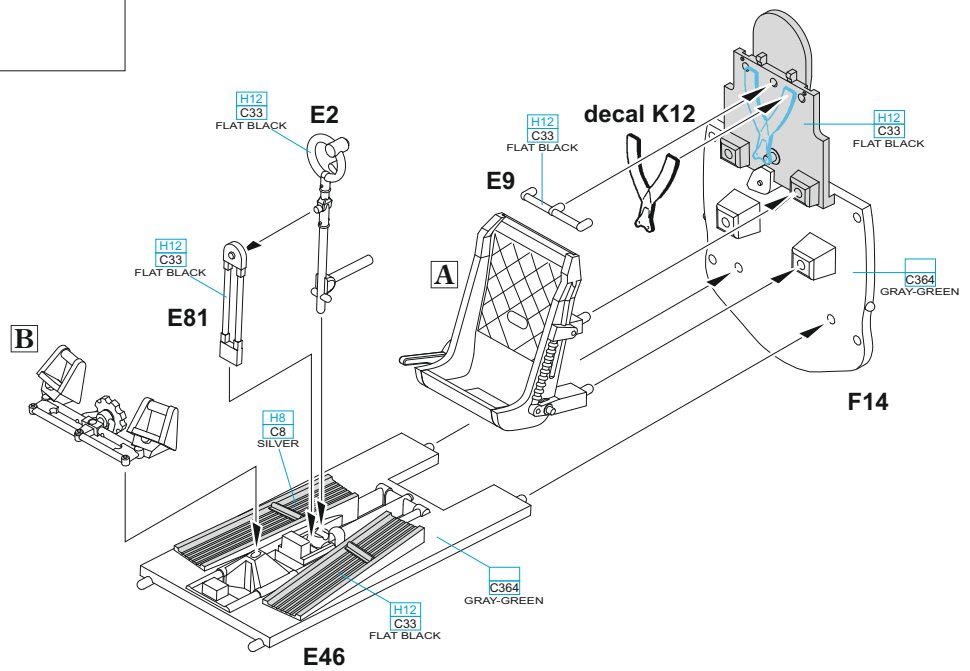
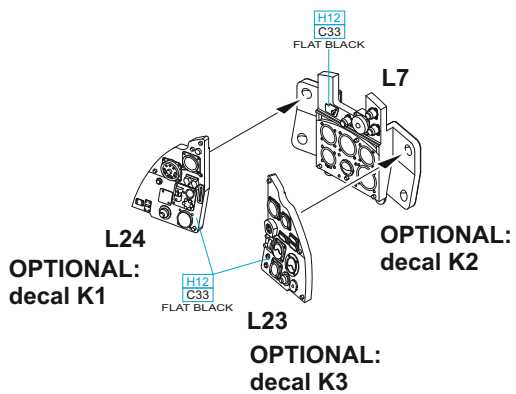
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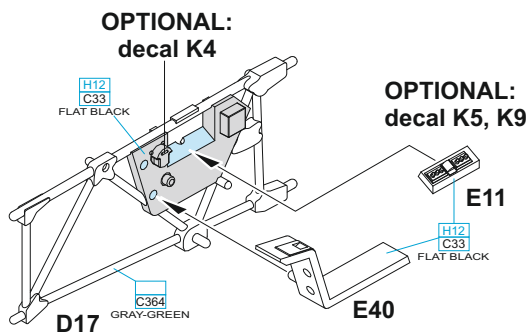
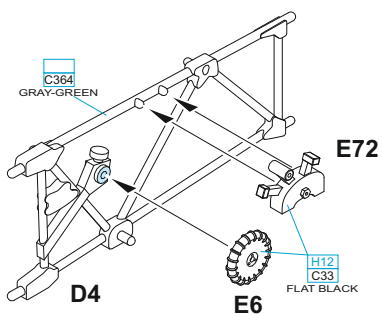
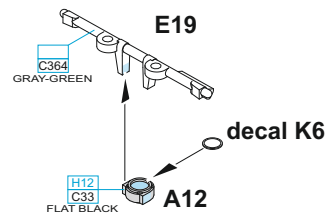
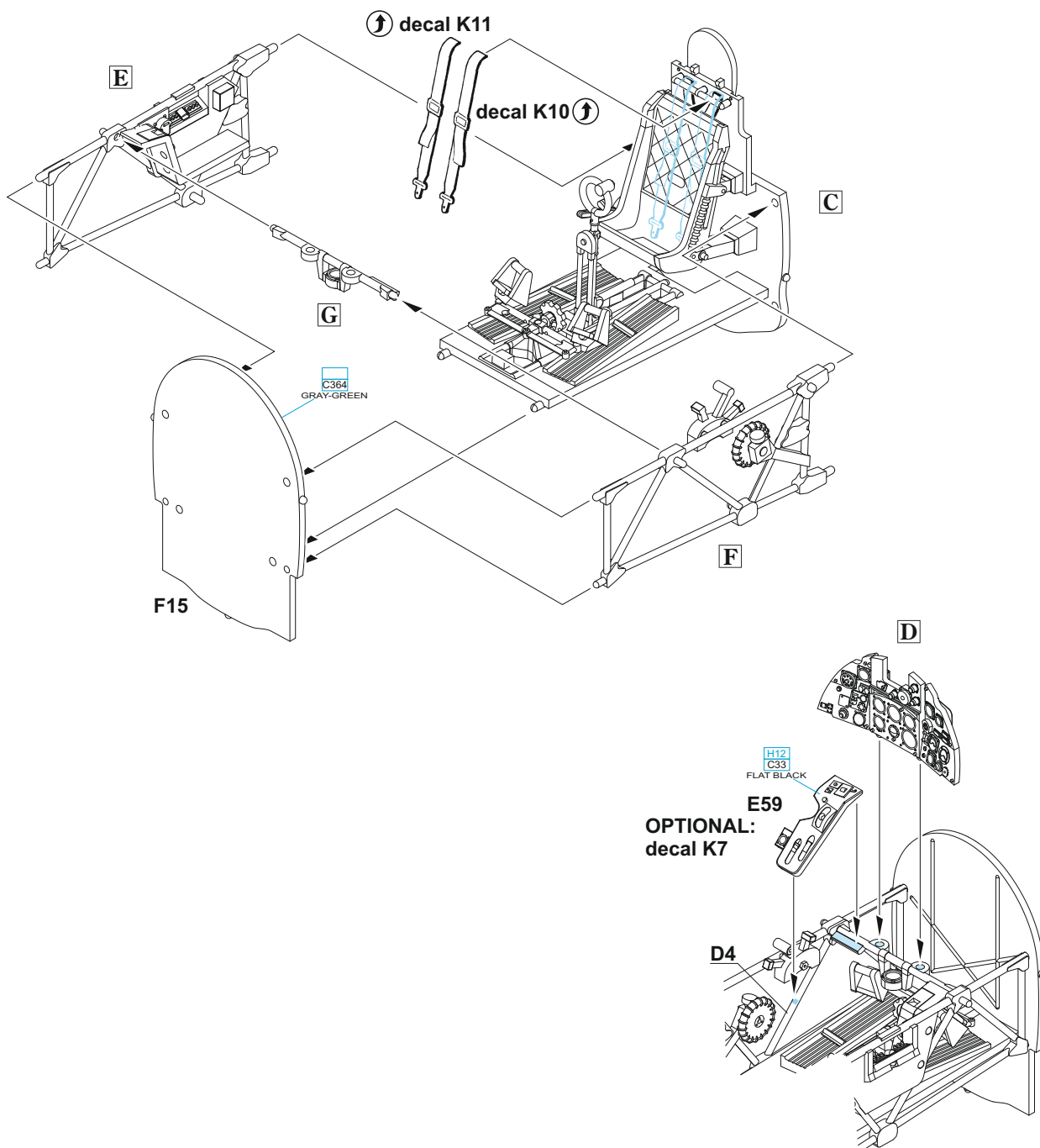


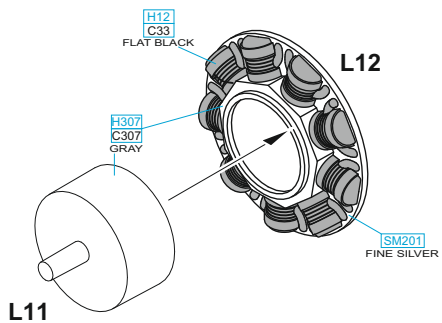
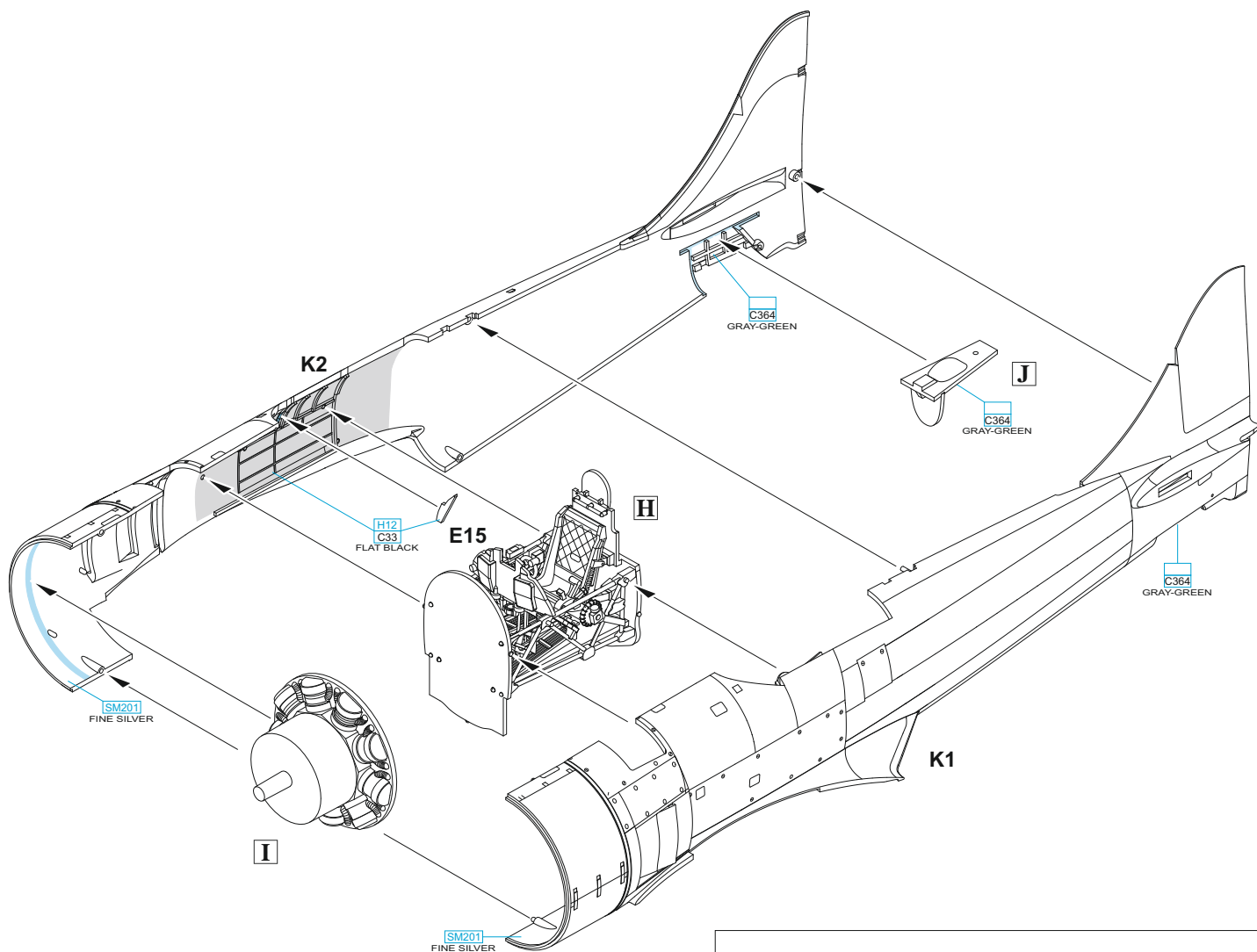
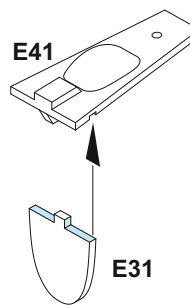
色

GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H4	C4	YELLOW
H7	C47	BROWN
H8	C8	SILVER
H11	C62	FLAT WHITE
H12	C33	FLAT BLACK
H15	C66	BRIGHT BLUE
H33	C81	RUSSET
H52	C12	OLIVE DRAB
H71	C21	MIDDLE STONE
H72	C369	DARK EARTH
H74	C368	SKY
H77	C137	TIRE BLACK
H90	C47	CLEAR RED

GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H94	C138	CLEAR GREEN
H307	C307	GRAY
H330	C361	DARK GREEN
H335	C363	MEDIUM SEAGRAY
	C362	OCEAN GRAY
	C364	AIRCRAFT GRAY-GREEN
	C370	AZURE BLUE
Mr.METAL COLOR		
	MC213	STEEL
	MC214	DARK IRON
	MC218	ALUMINIUM
Mr.COLOR SUPER METALLIC		
	SM201	SUPER FINE SILVER

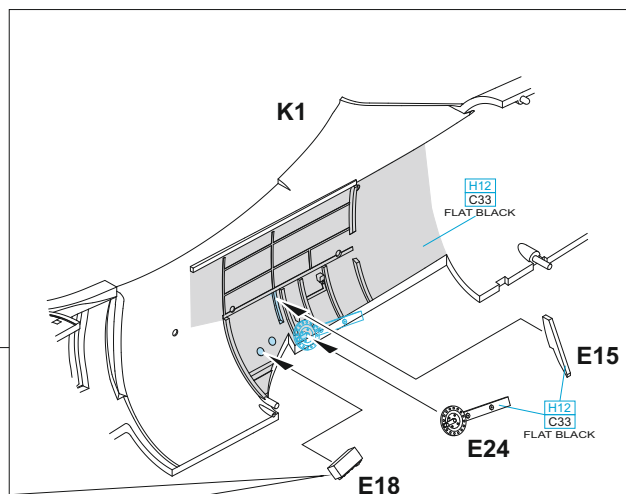
**A****B****C****D**

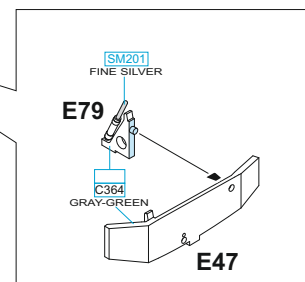
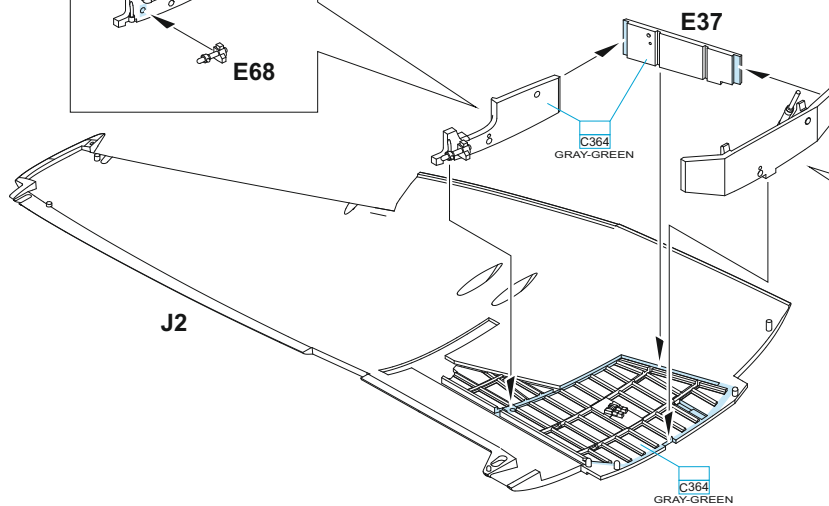
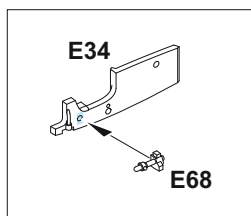
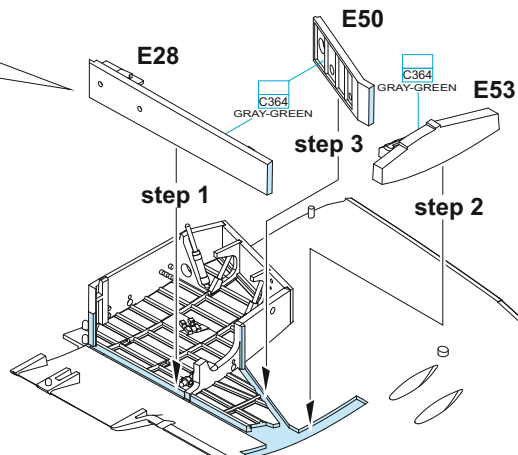
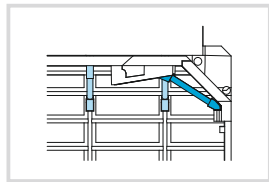
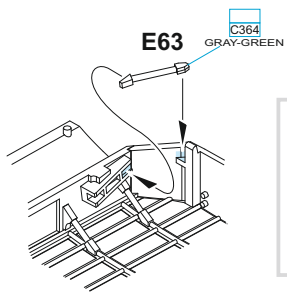
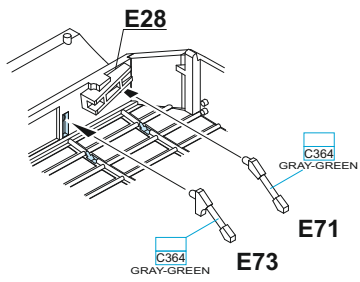
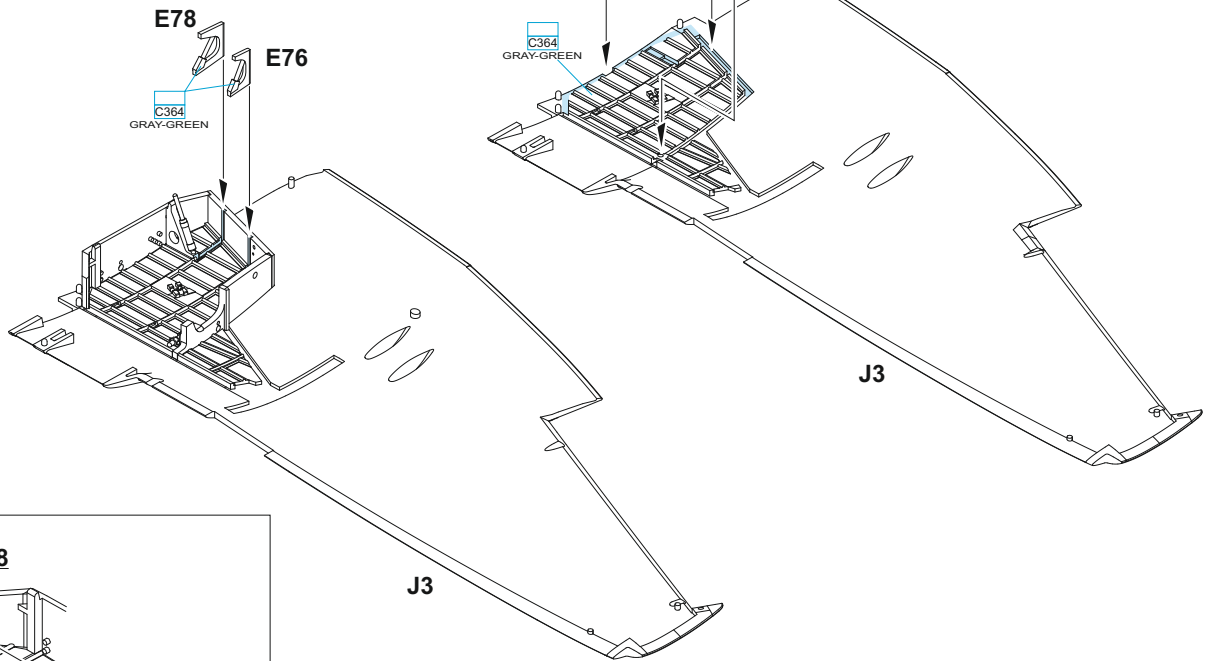
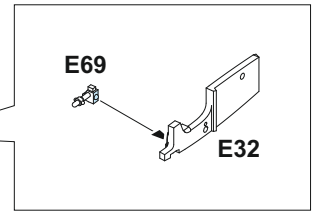
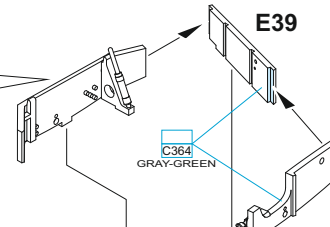
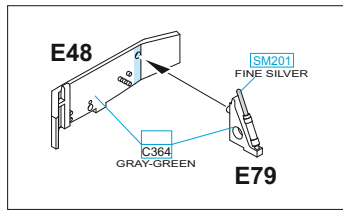
**E****F****G****H**

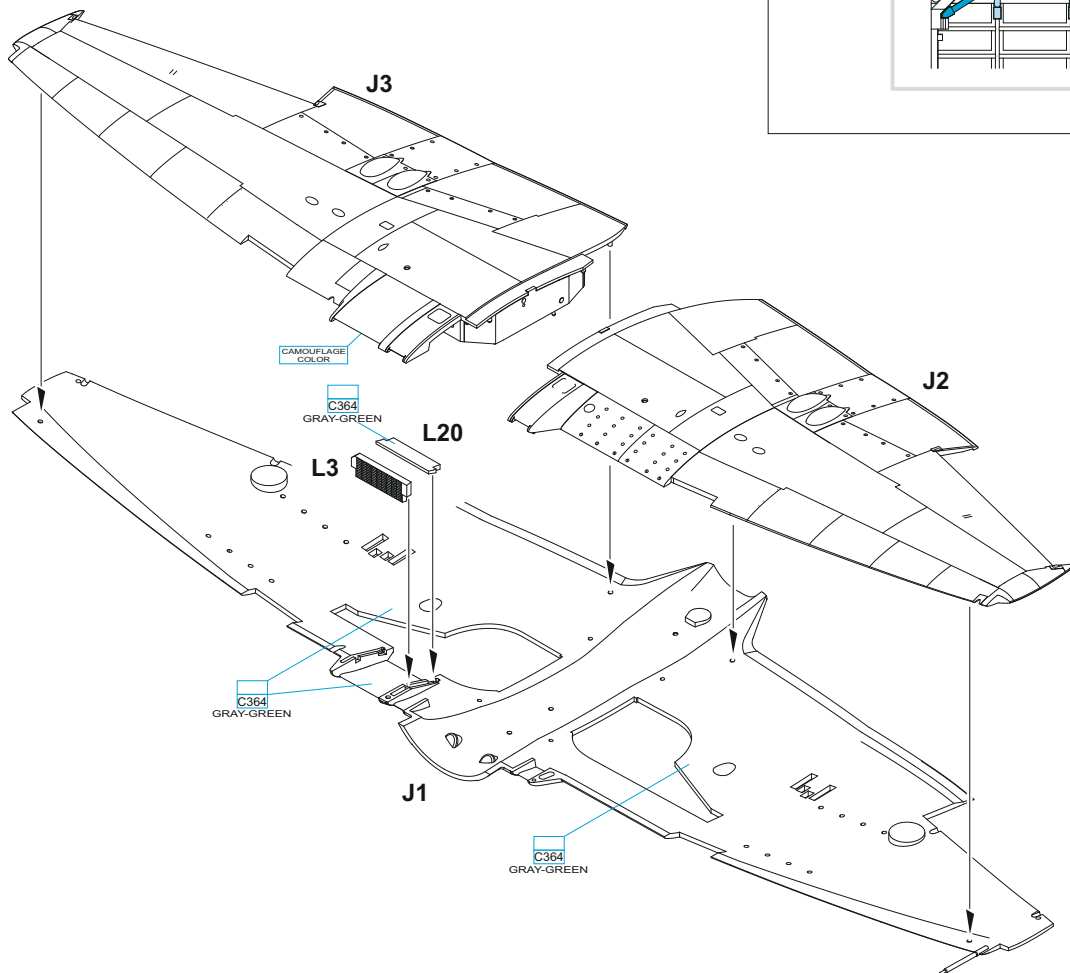
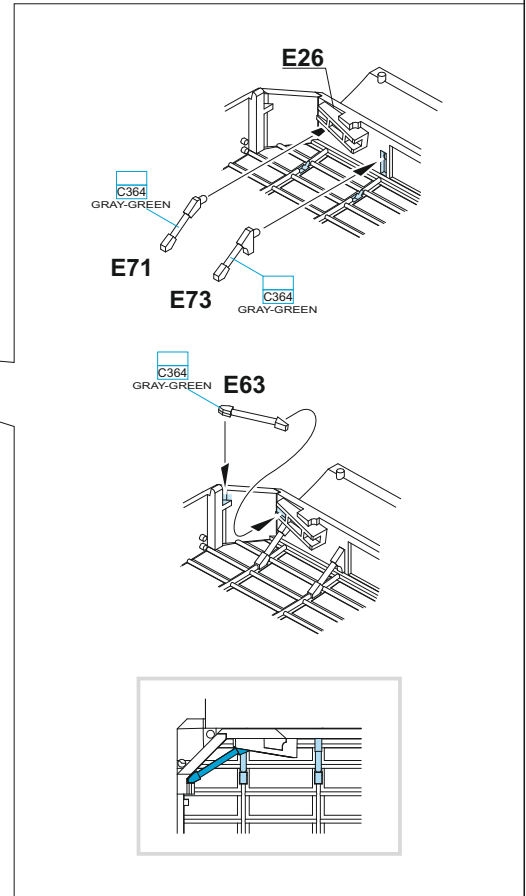
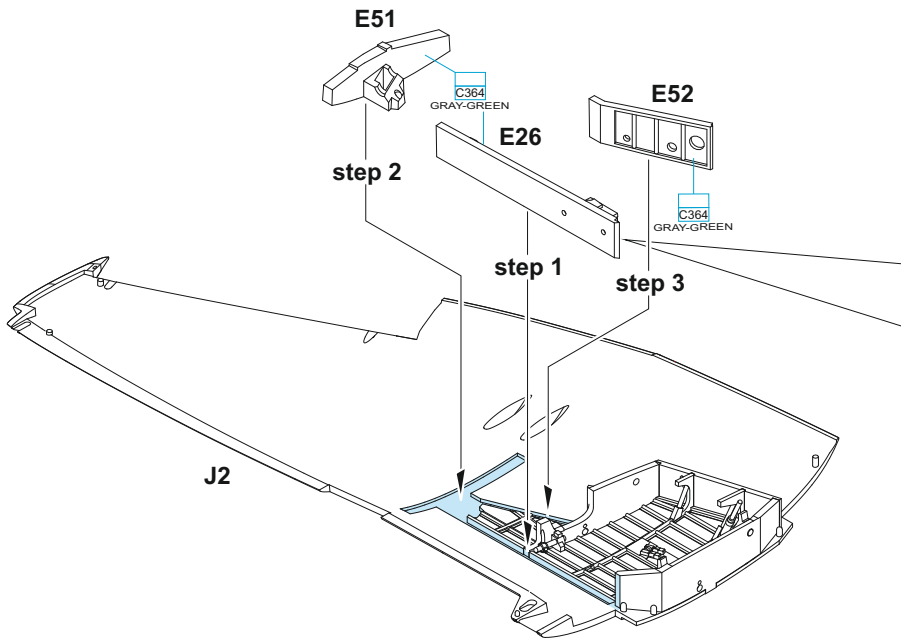
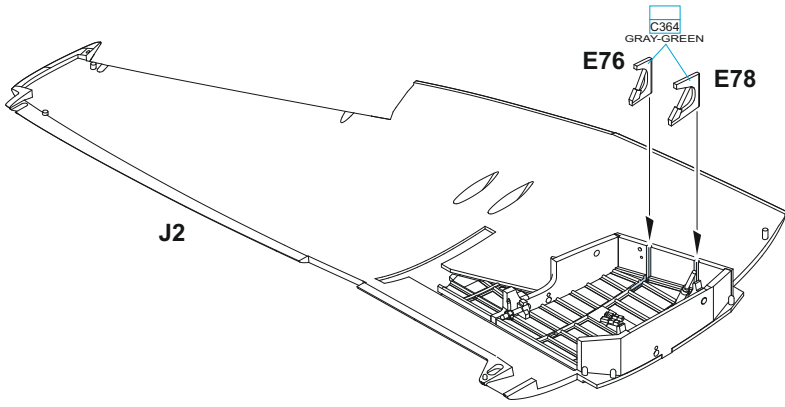
**I****J****I****J****H**

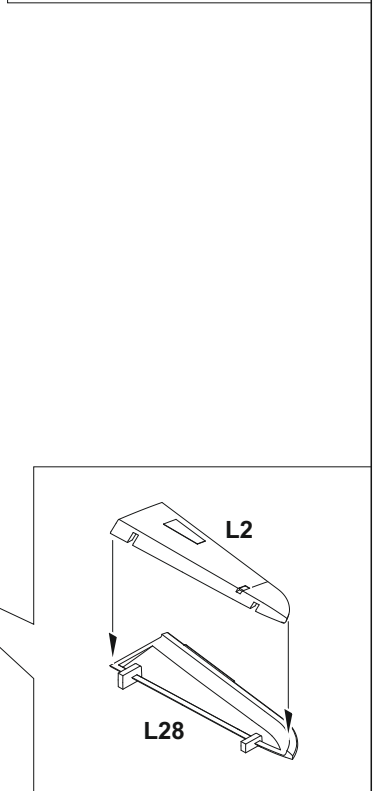
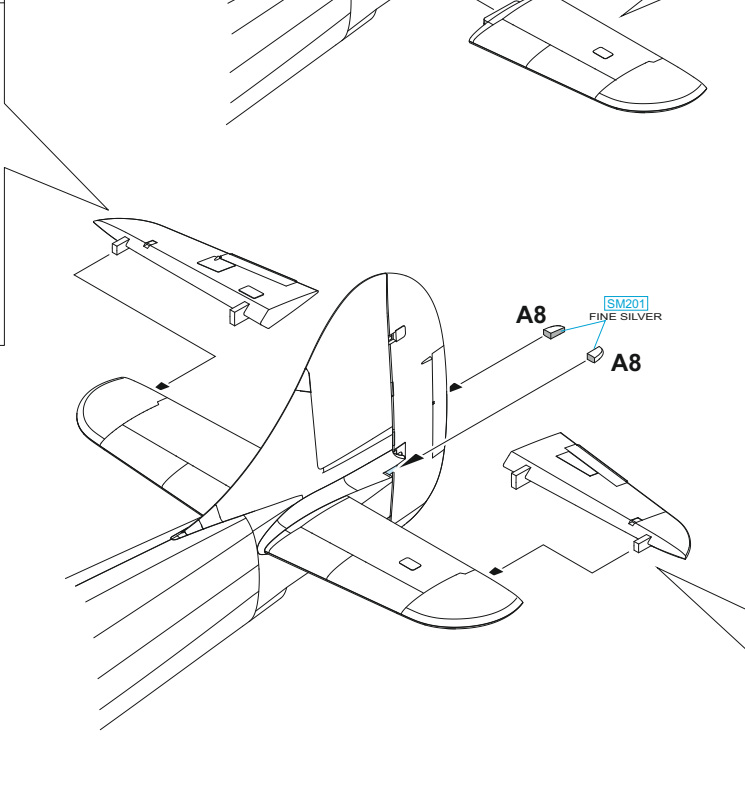
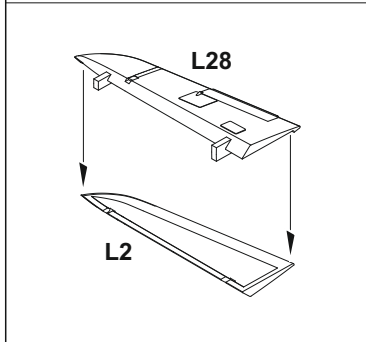
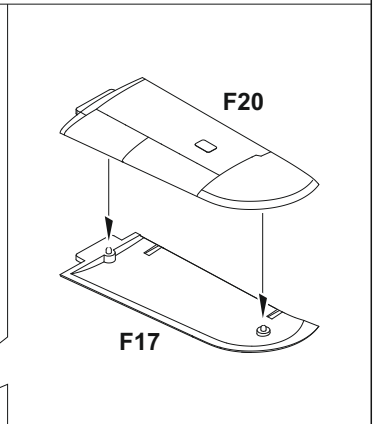
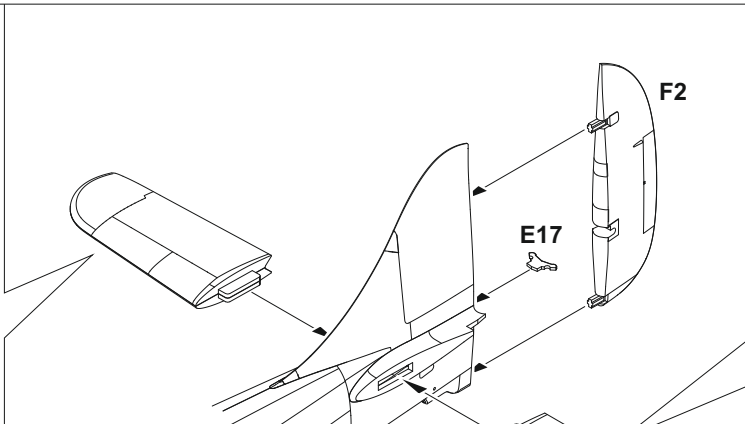
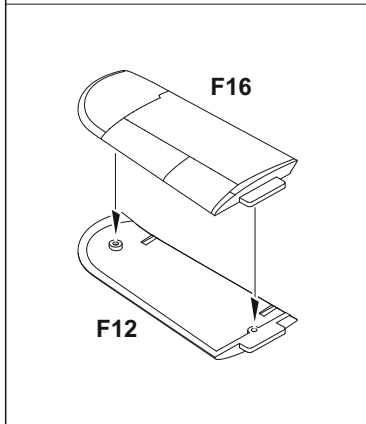
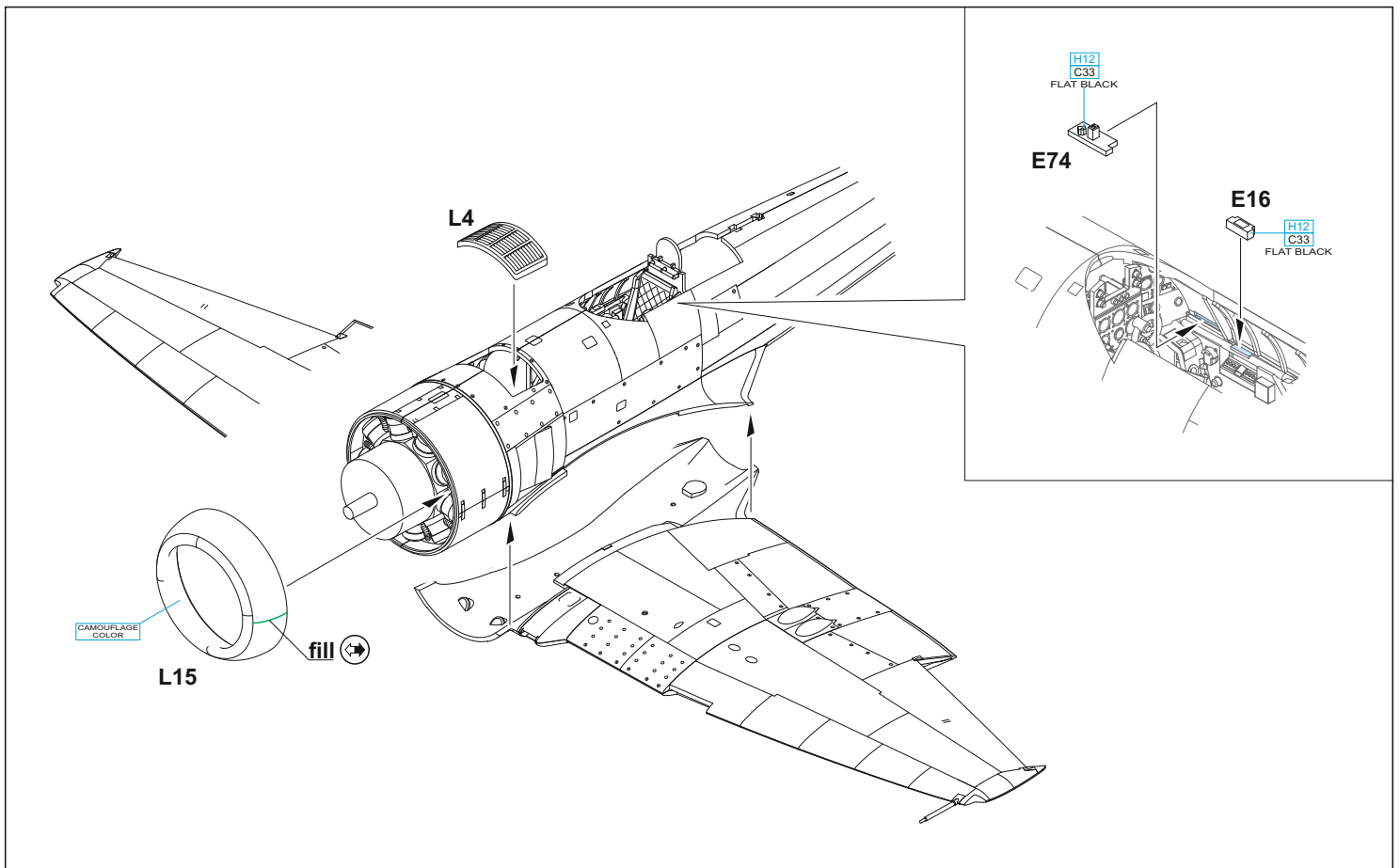
**OPTIONAL:  
decal K8**

H12  
C33  
FLAT BLACK

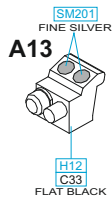
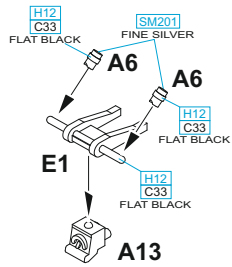
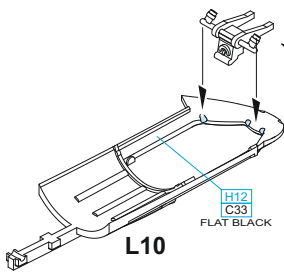
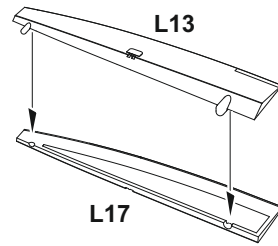
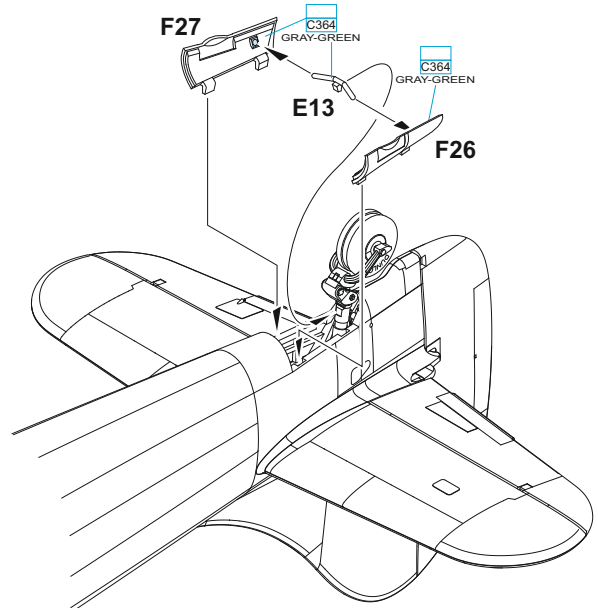
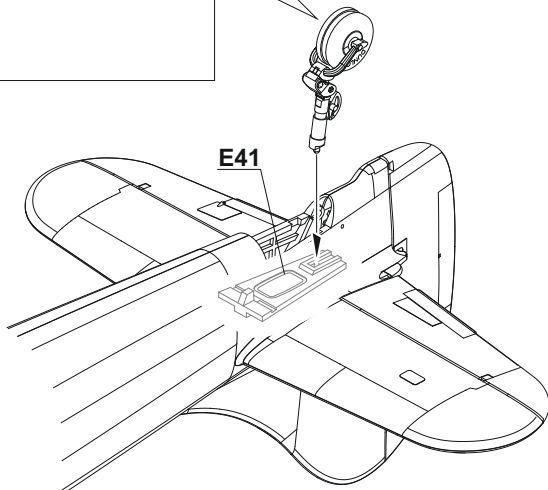
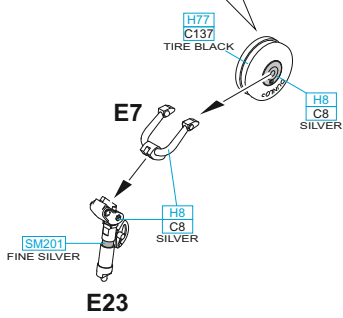
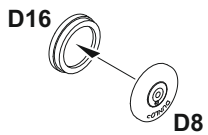
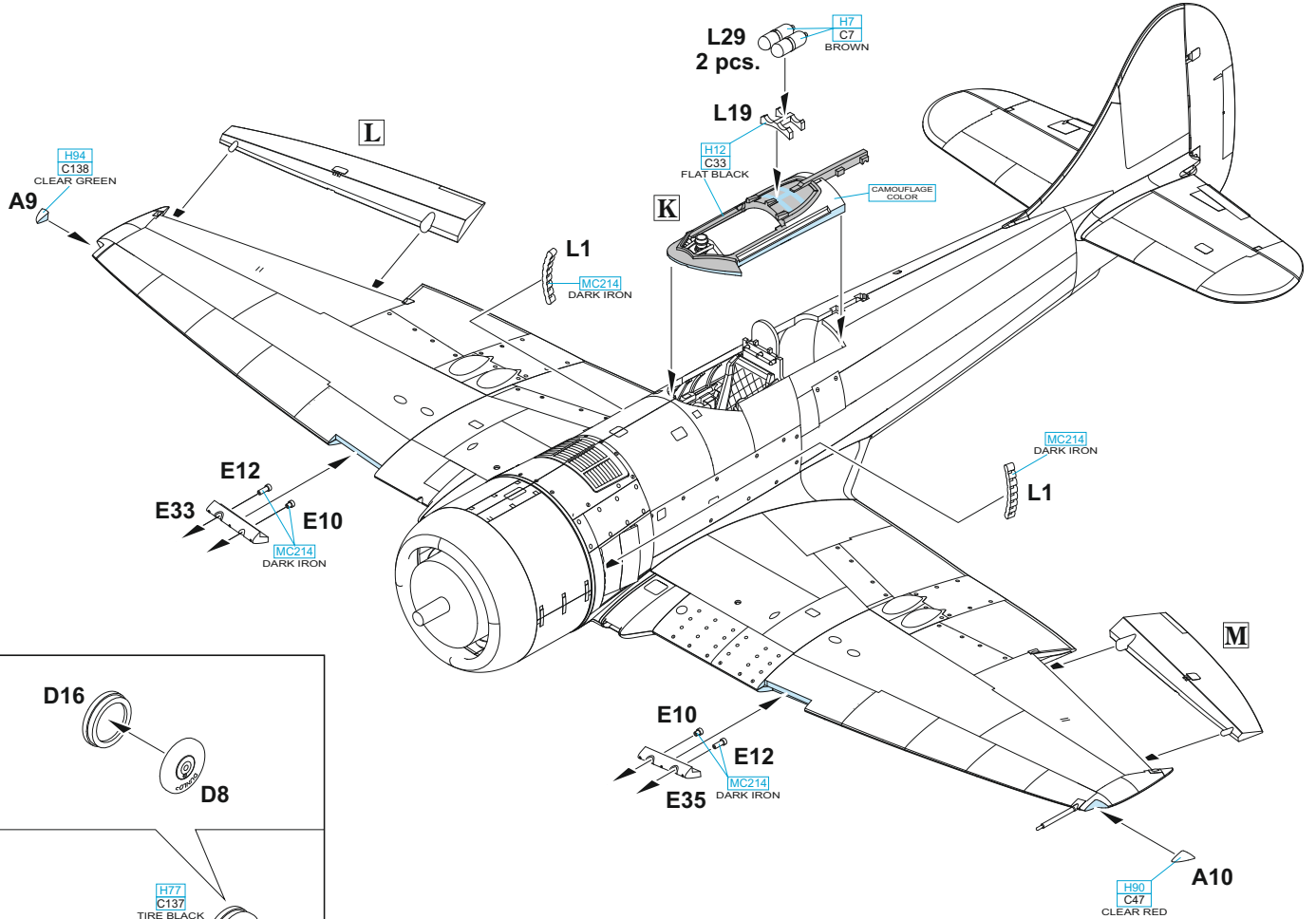
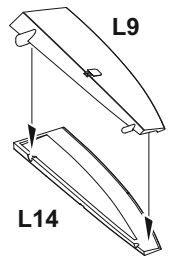
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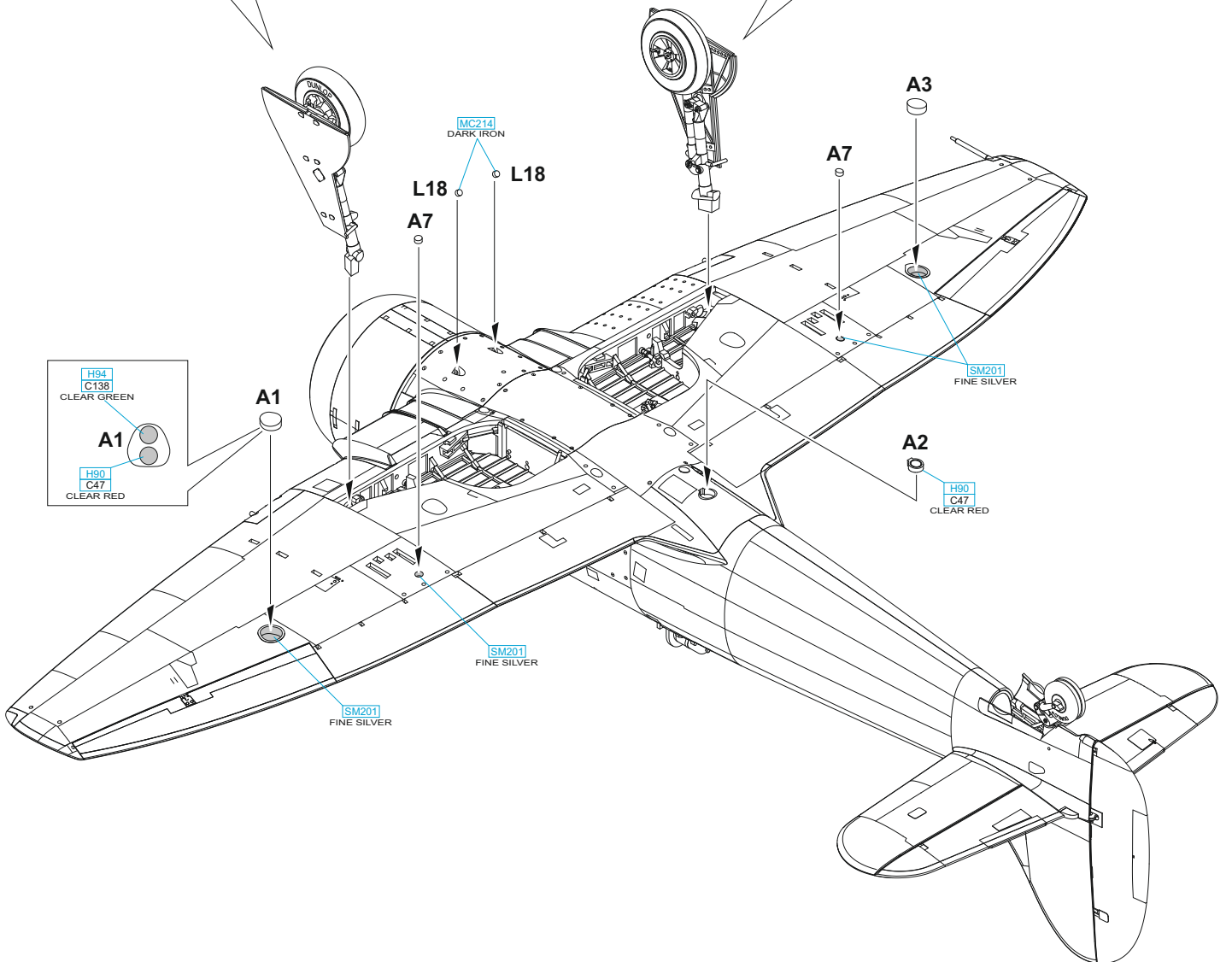
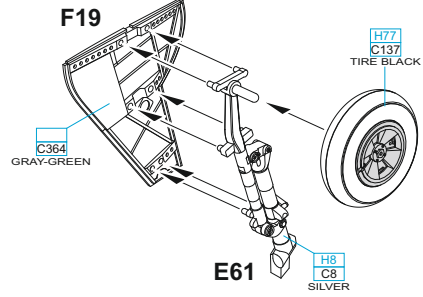
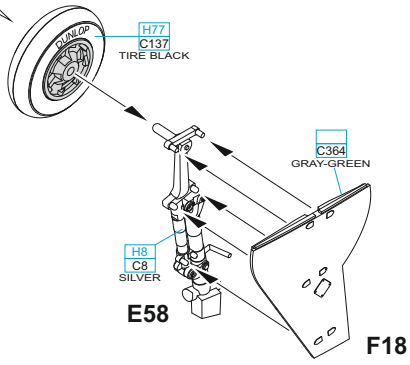
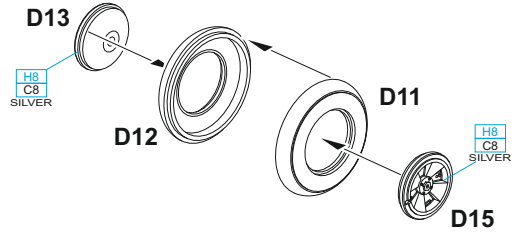
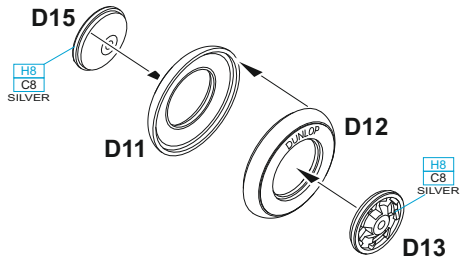


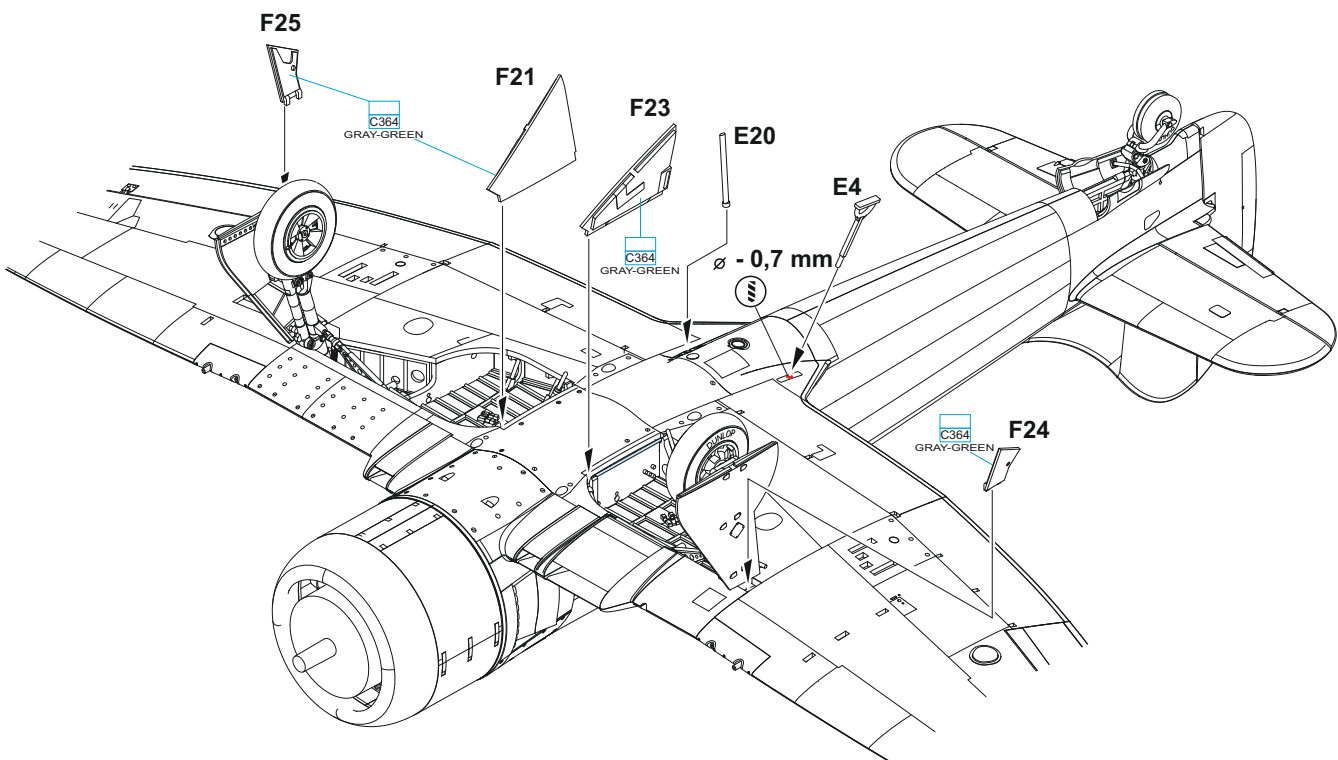
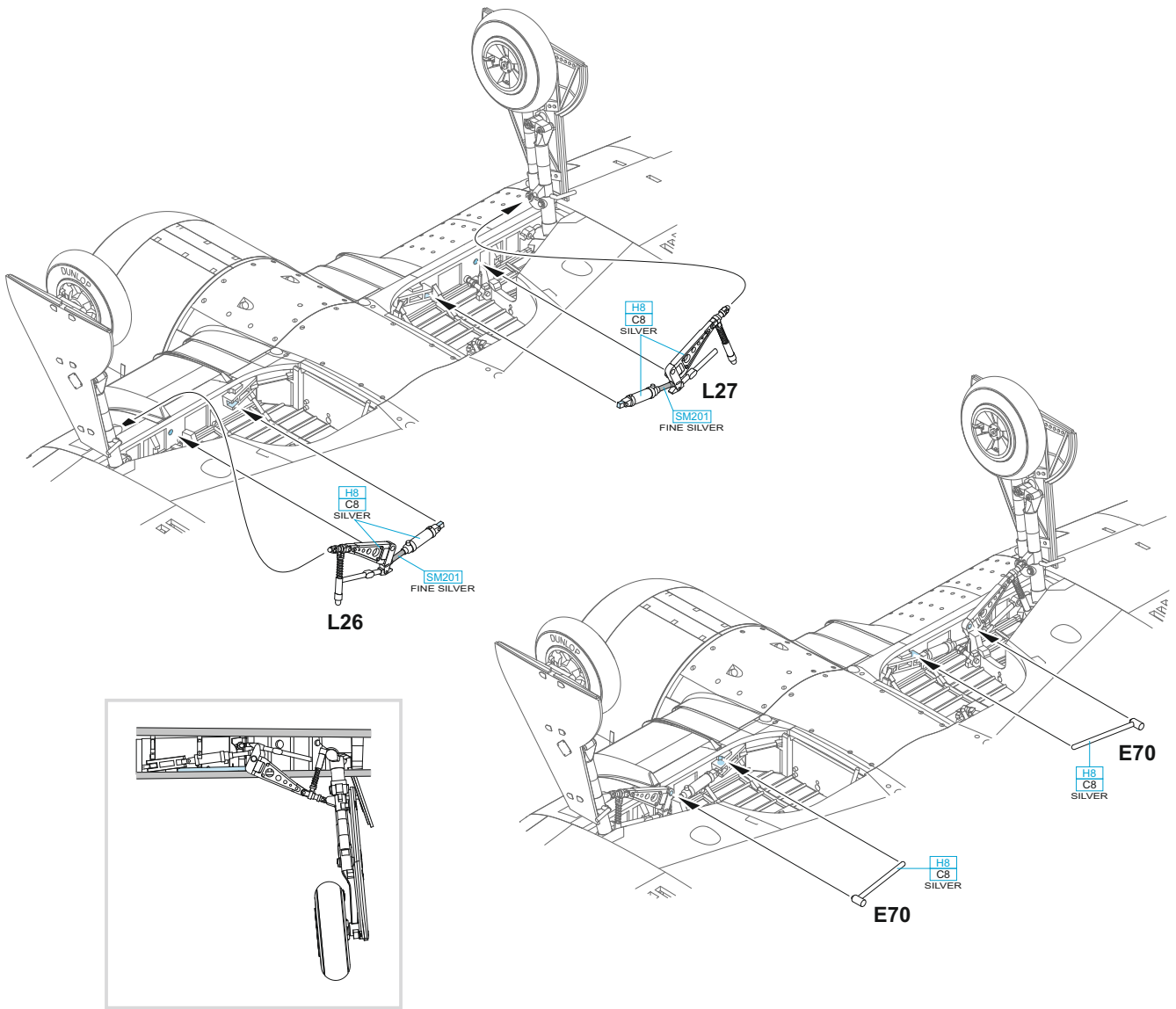




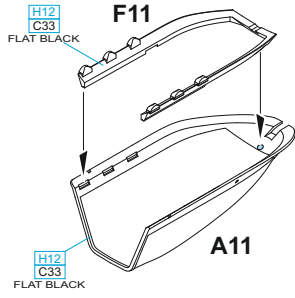


**K****L****M**



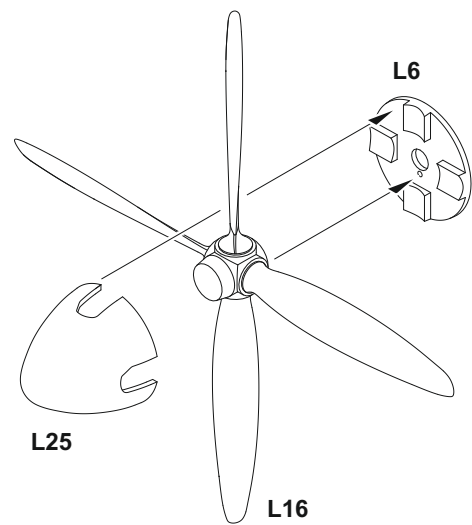
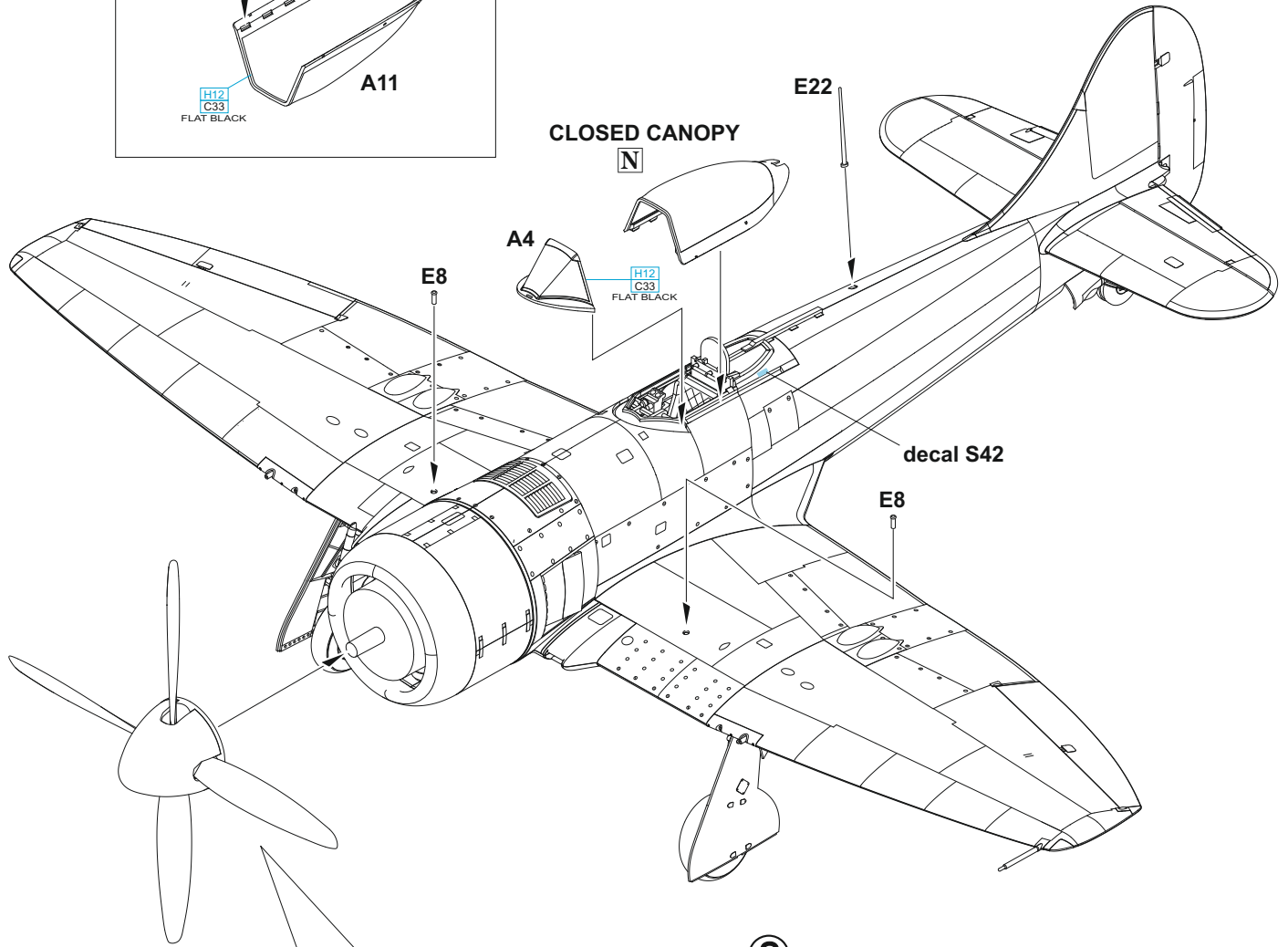


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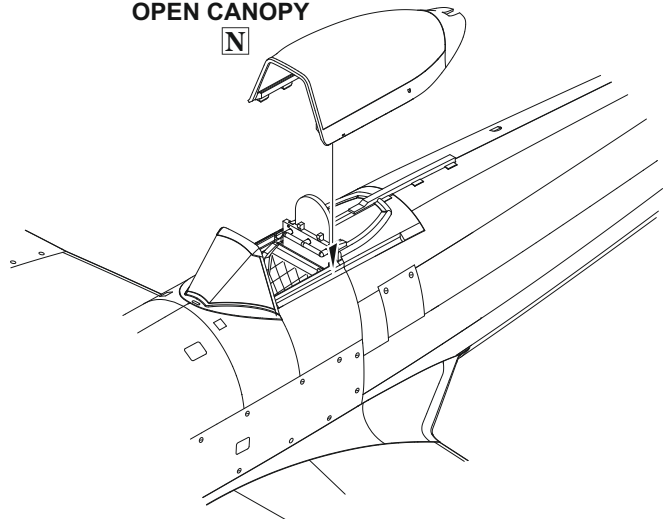
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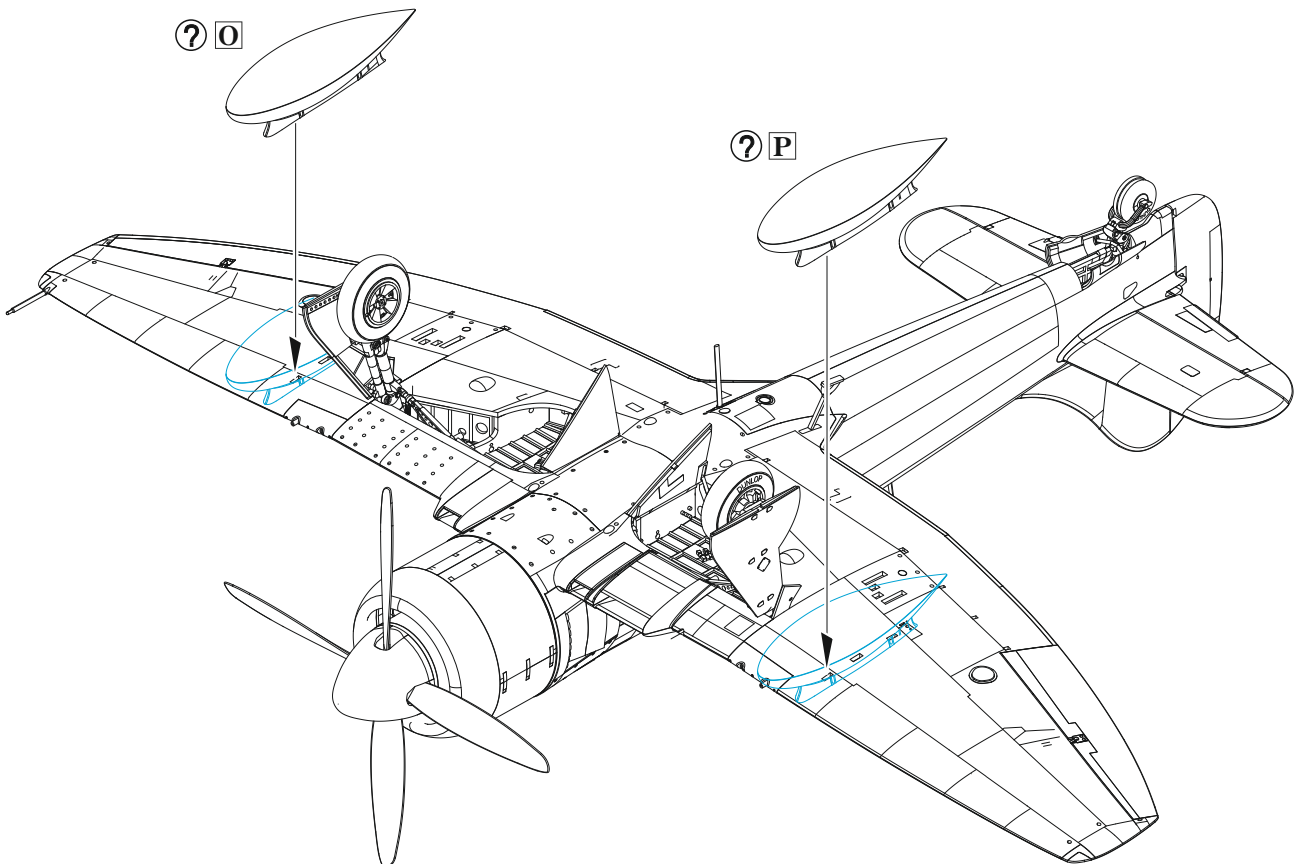
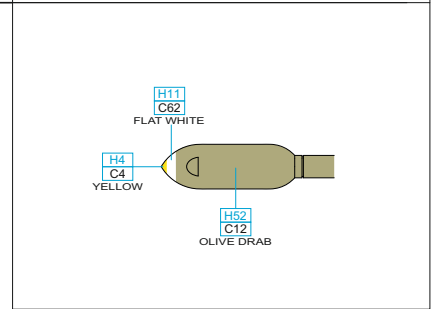
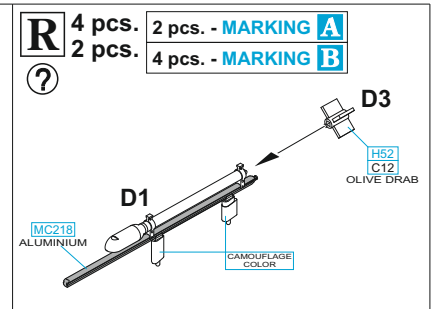
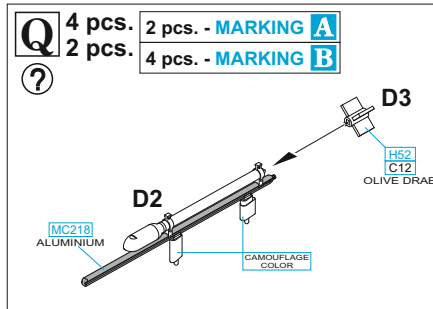
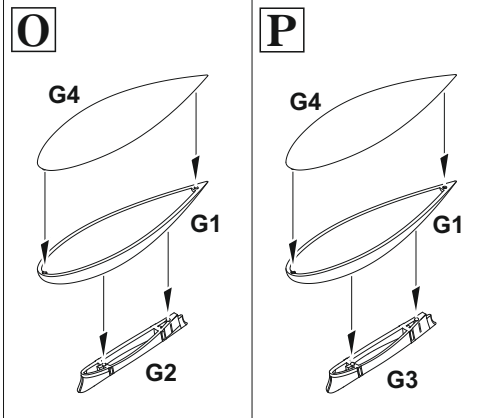
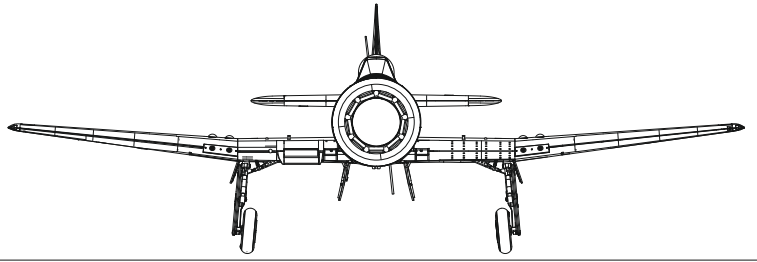
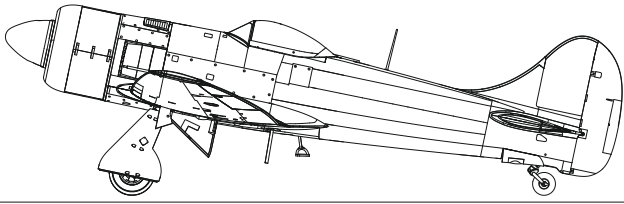
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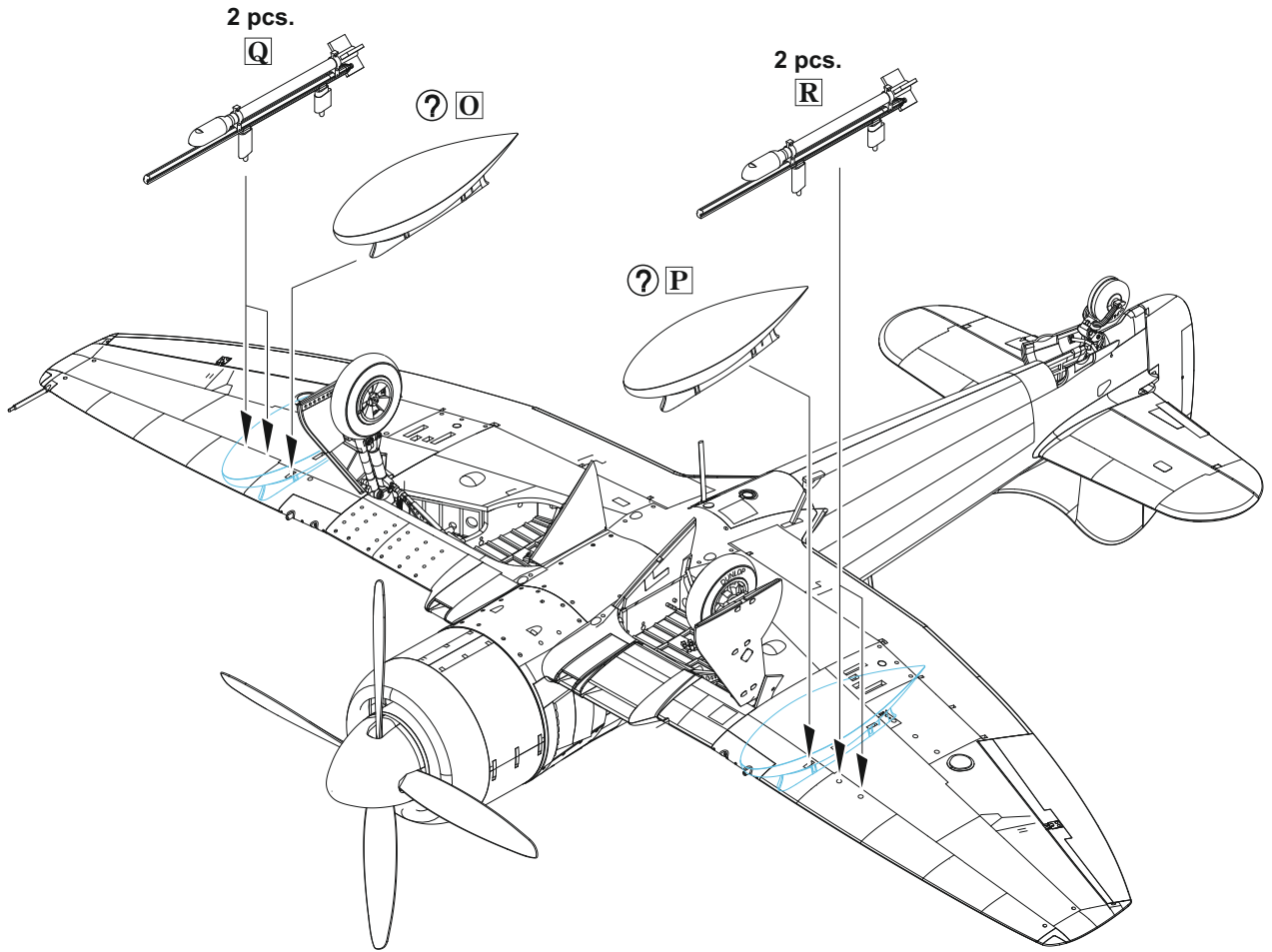
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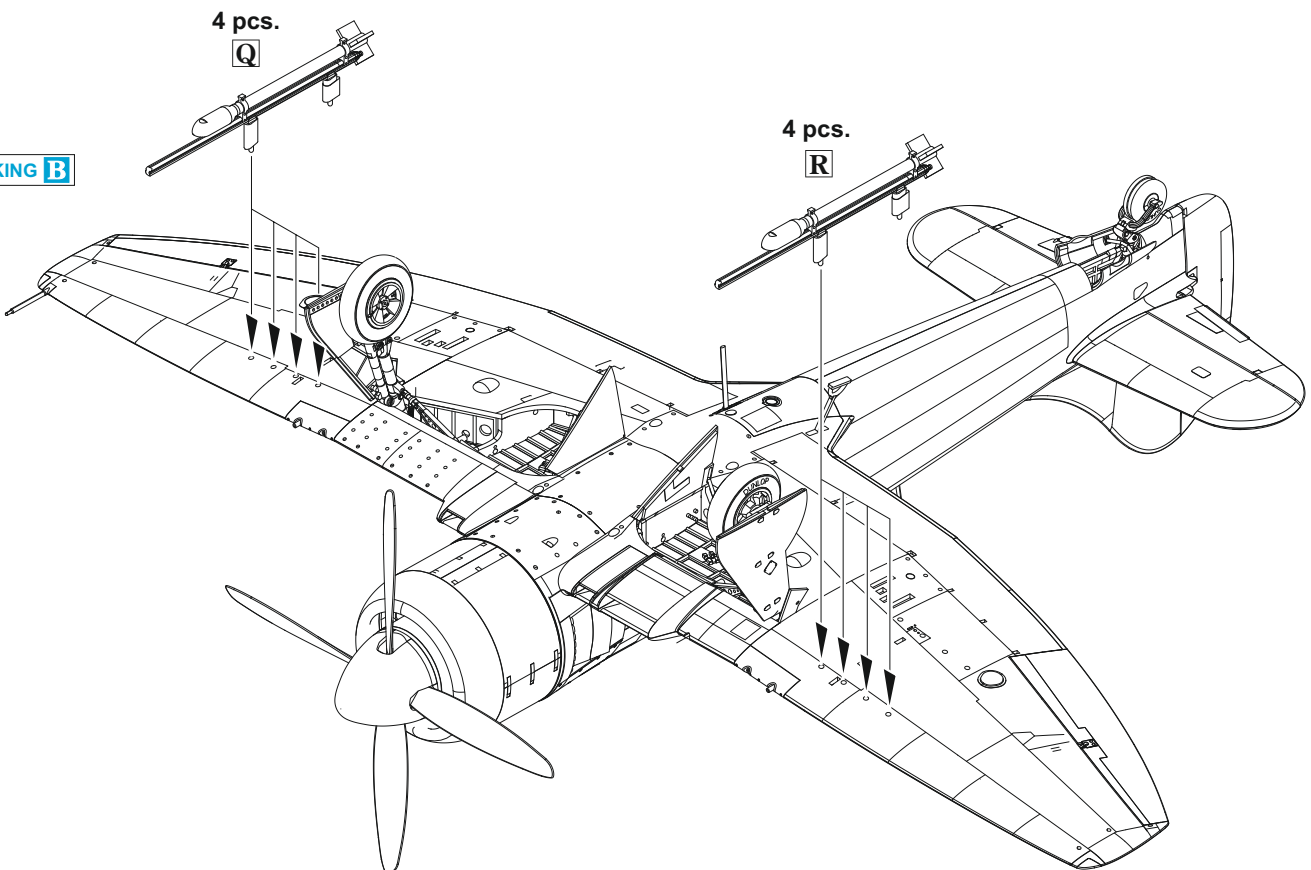




MARKING **A**

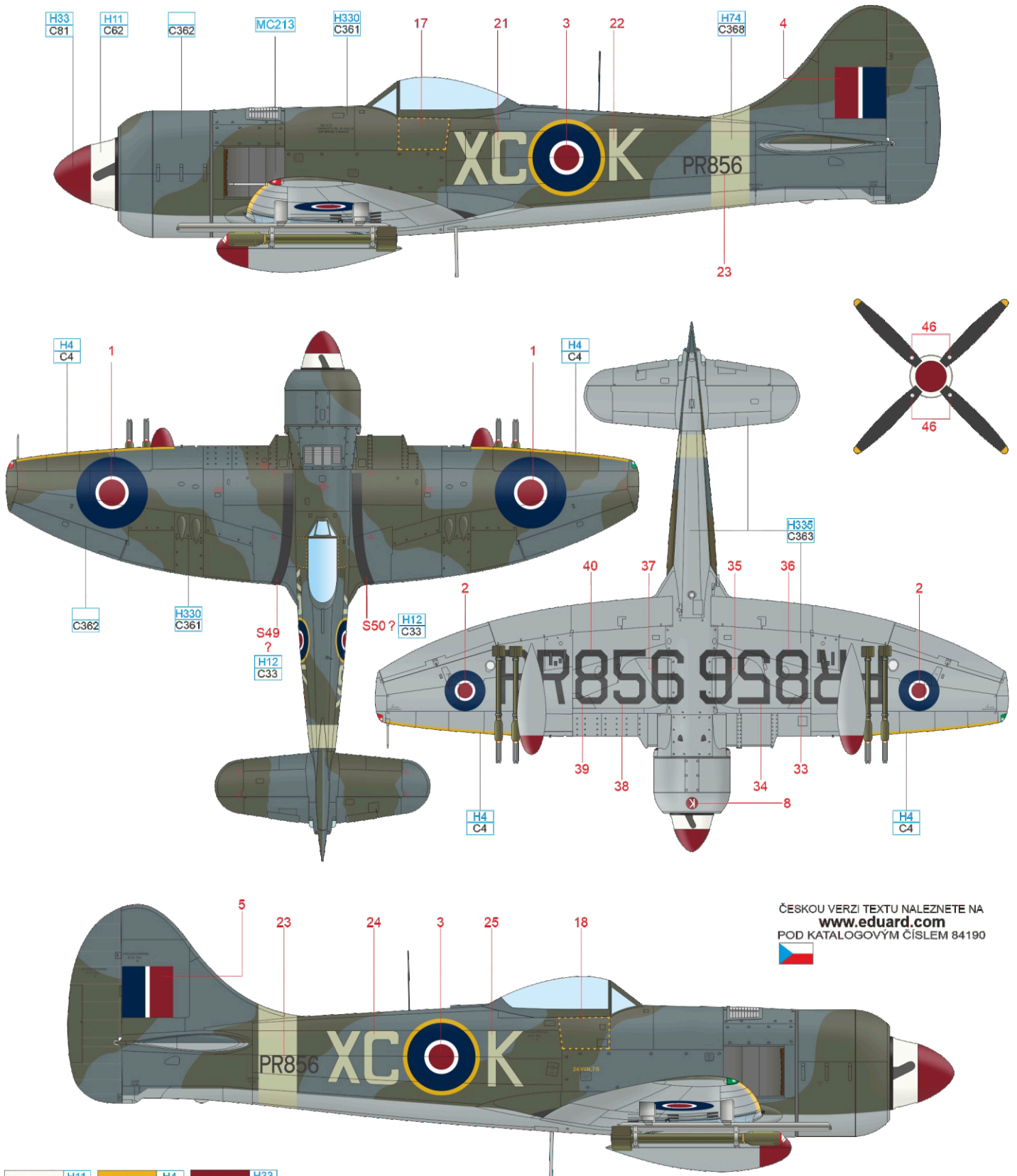


MARKING **B**



# A PR856, F/Lt Jack Frost, No. 26 Sqn, No. 135 Wing BAF0, Zeltweg, Austria, July 1947

No. 26 Squadron received the Tempest Mk.II serial number PR856 on New Year 1947. It was used as a personal aircraft of the A flight leader F/Lt Jack Frost. His Tempest sported the red markings on the propeller spinner and drop tanks indicating that the aircraft belonged to the A flight. On July 15, 1947, as a reaction to the growing tension at the Yugoslav-Italian border the No. 135 Wing flew to Austrian Zeltweg, the closest suitable airbase the RAF could operate from, under the code name Operation Diagram. Trieste, the center of the riots, was barely over 30 minutes of flight away. To demonstrate its presence, four RAF Tempests led by F/Lt Frost from the No. 26 Squadron overflew the mansion of the Yugoslav president Josip Tito. After a month of the operations out of the Zeltweg airbase the No. 135 Wing returned to Fassberg. In April 1949, when the No. 26 Squadron was re-equipped with Vampire FB.5 aircraft, PR856 was returned to the Great Britain. After it was stored at the No. 20 Maintenance Unit in Aston Down this aircraft became one of twenty surplus Tempests F.II which in the summer 1951 were sold to the Indian government.



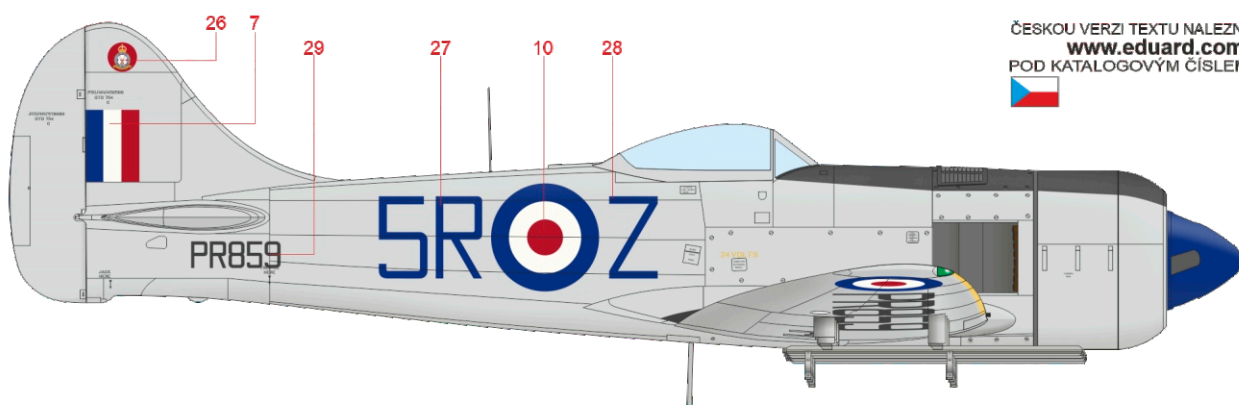
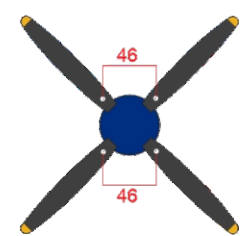
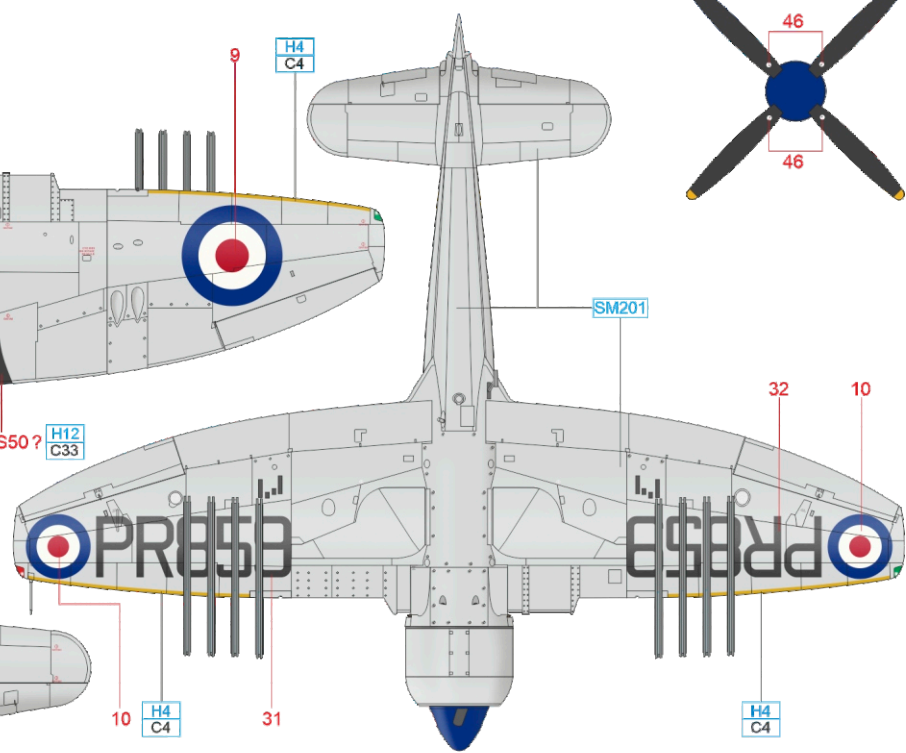
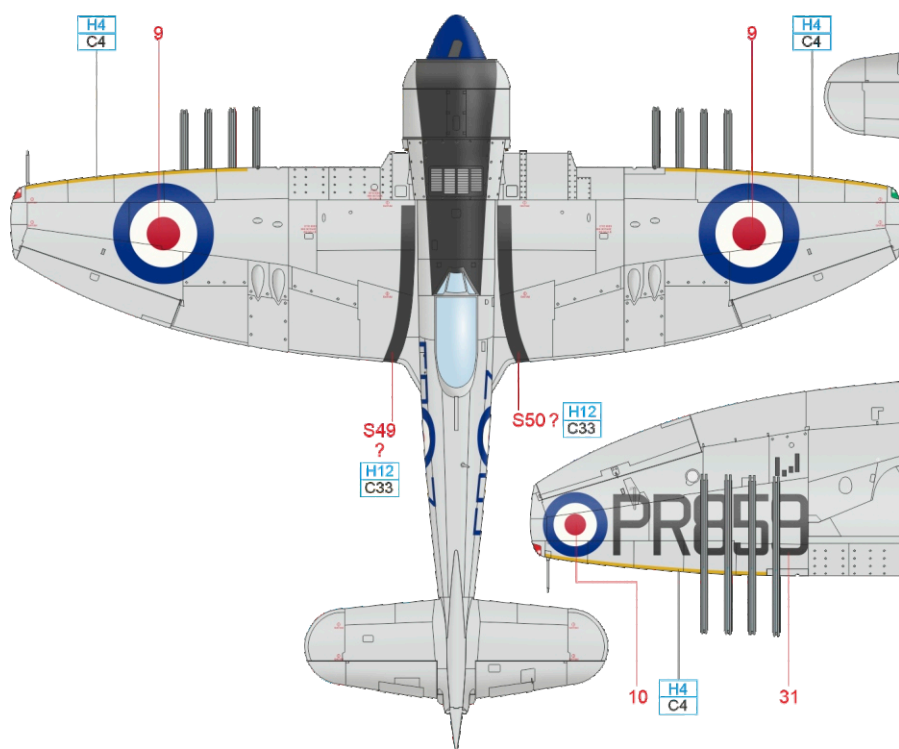
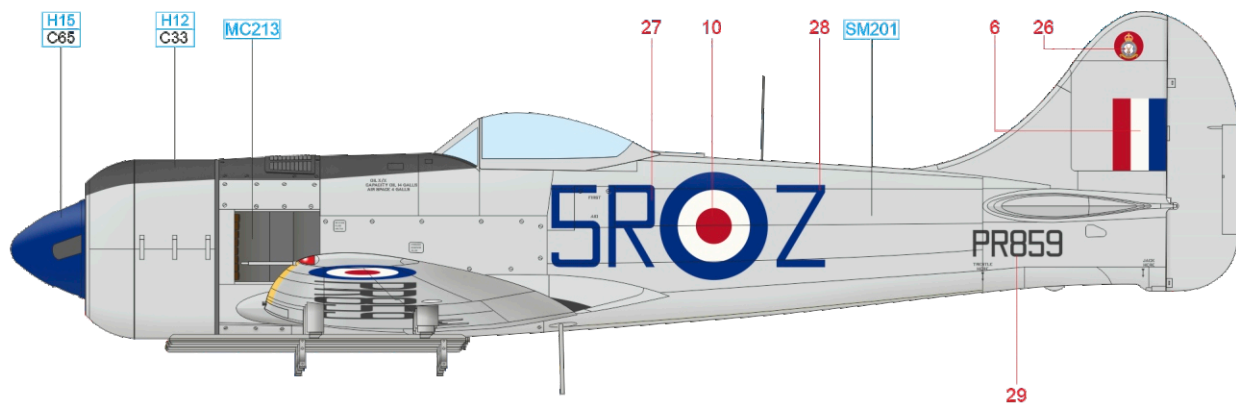
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WHITE	H11 C62	YELLOW	H4 C4	RED	H33 C81
MEDIUM SEA GRAY	H335 C363	DARK GREEN	H330 C361	OCEAN GRAY	C362
SKY	H74 C368	STEEL	MC213		

# B PR859, No. 33 Squadron, Butterworth, Malaya, October 1949

In June 1949 the Tempests F.2 (the Arabic numerals replaced Roman ones in 1948) from the No. 33 Squadron were dispatched to Malaya on board of the HMS Ocean. Some of them were already painted in the new standard "aluminum" scheme. In October 1949 the remaining camouflaged Tempests were oversprayed with the new scheme, one of them was PR859 marked 5R-Z. The code letters on this aircraft were painted in blue color indicating B flight. The propeller spinner was painted in the same color. By the end of 1949 the No. 33 Squadron was fully operational tasked with maintaining four Tempests on scramble for strikes against the MRLA communist terrorists (Malaysian National Liberation Army). During the next 21 months many sorties were flown deploying the rocket and cannon weaponry to support the army operations to make MRLA to retreat.



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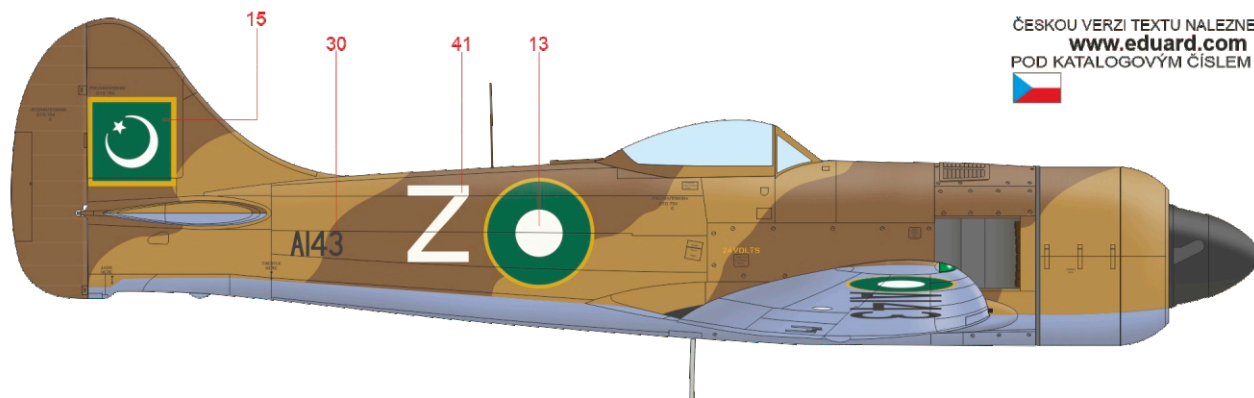
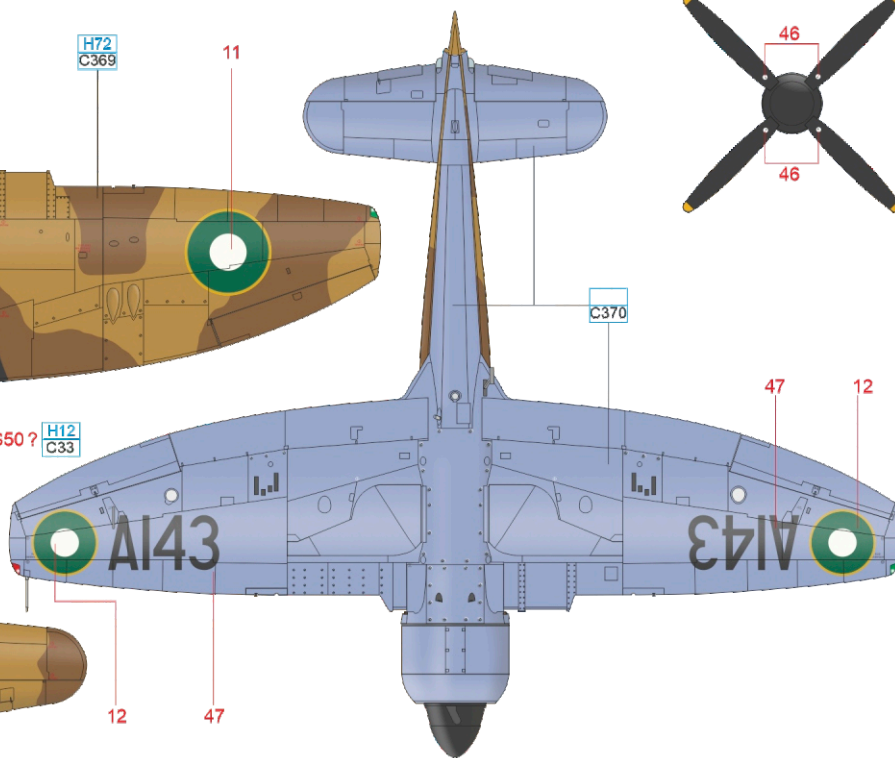
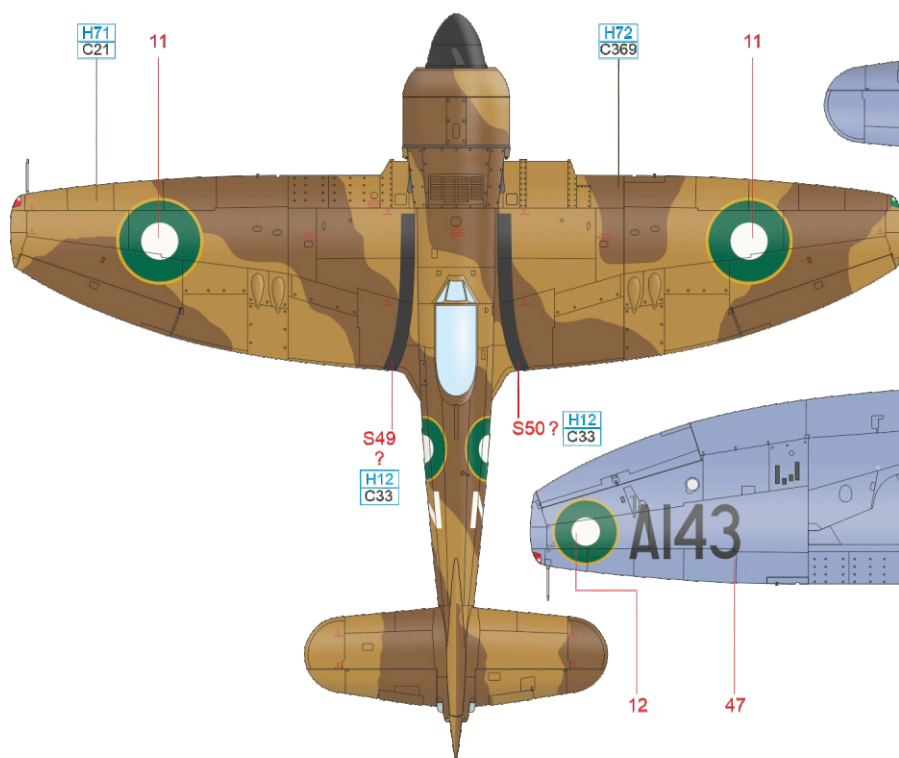
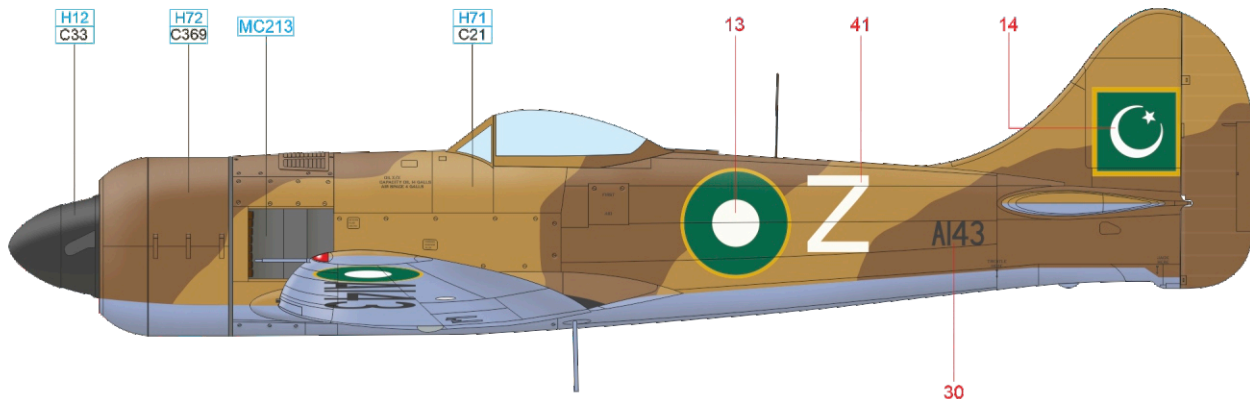
- YELLOW H4 C4
- SUPER FINE SILVER SM201
- STEEL MC213
- BRIGHT BLUE H15 C65
- BLACK H12 C33





# C A143, No. 14 Squadron, Royal Pakistan Air Force, Pakistan, 1949–1950

On November 1, 1948, in Peshawar the No. 14 Squadron of the Royal Pakistan Air Force (RPAF) was established. Only four days later the first encounter of Indian RIAF and Pakistani RPAF aircraft took place when two RIAF Tempests attacked the Pakistani Dakota. On January 15, 1949, the No. 14 Squadron was disbanded due to the fact that during December the unit had lost two Tempests and without replacement aircraft the situation became critical. The supplies of new Tempests commenced in March 1949 and the aircraft were immediately allocated to the combat units. They received the serials from A128 to A151 and were easily recognizable thanks to their desert camouflage scheme. The recognition stripes were not applied. As the material and personal situation improved on December 15, 1949, the No. 14 Squadron was re-activated under the leadership of Polish pilot Julian Kazimierz Żurowski. On March 24, 1950, the unit has been relocated to Miranshah for its first combat deployment against Faqir of Ipi uprising.



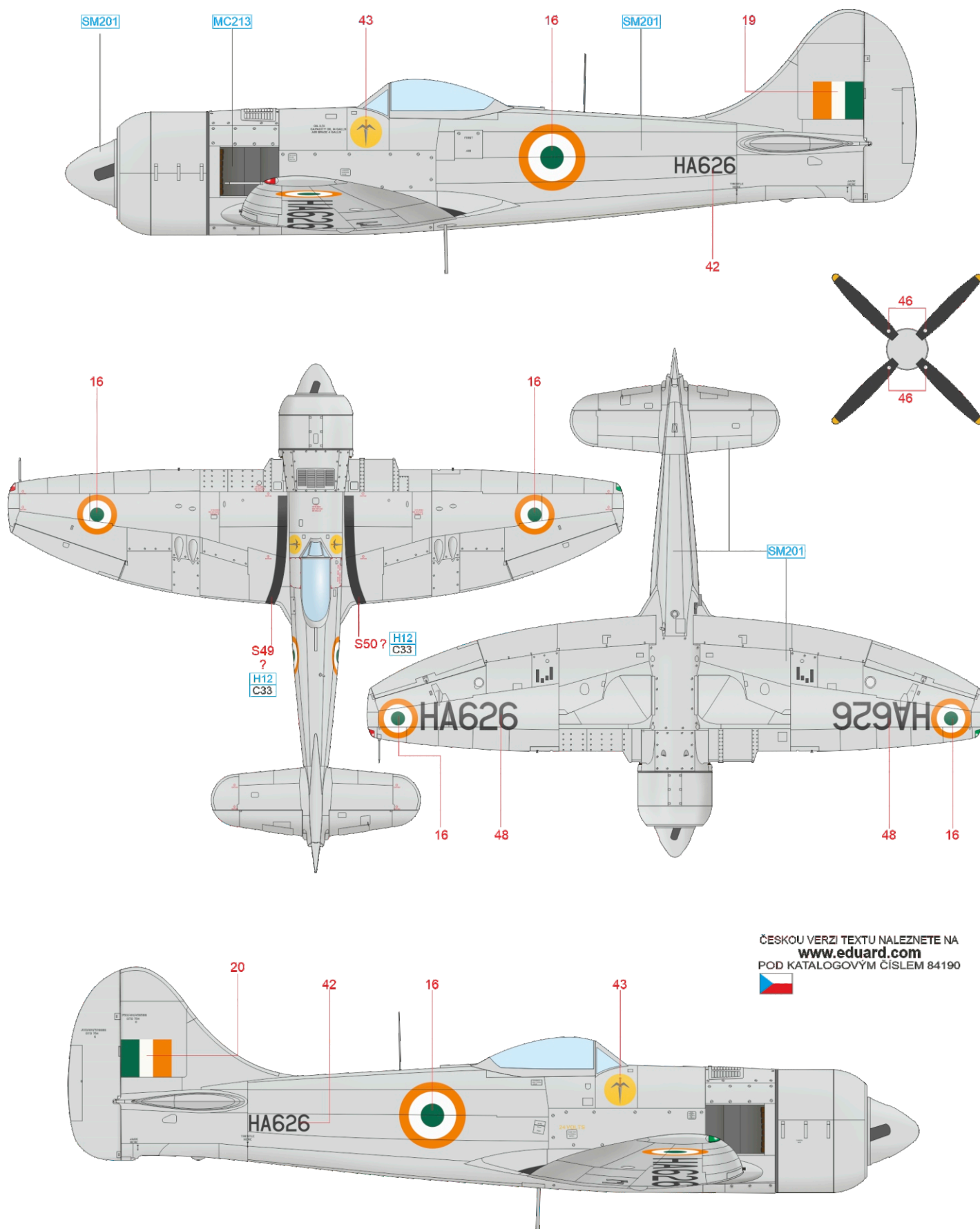
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DARK EARTH H72 C369 MIDDLE STONE H71 C21 AZURE BLUE C370 STEEL MC213 BLACK H12 C33

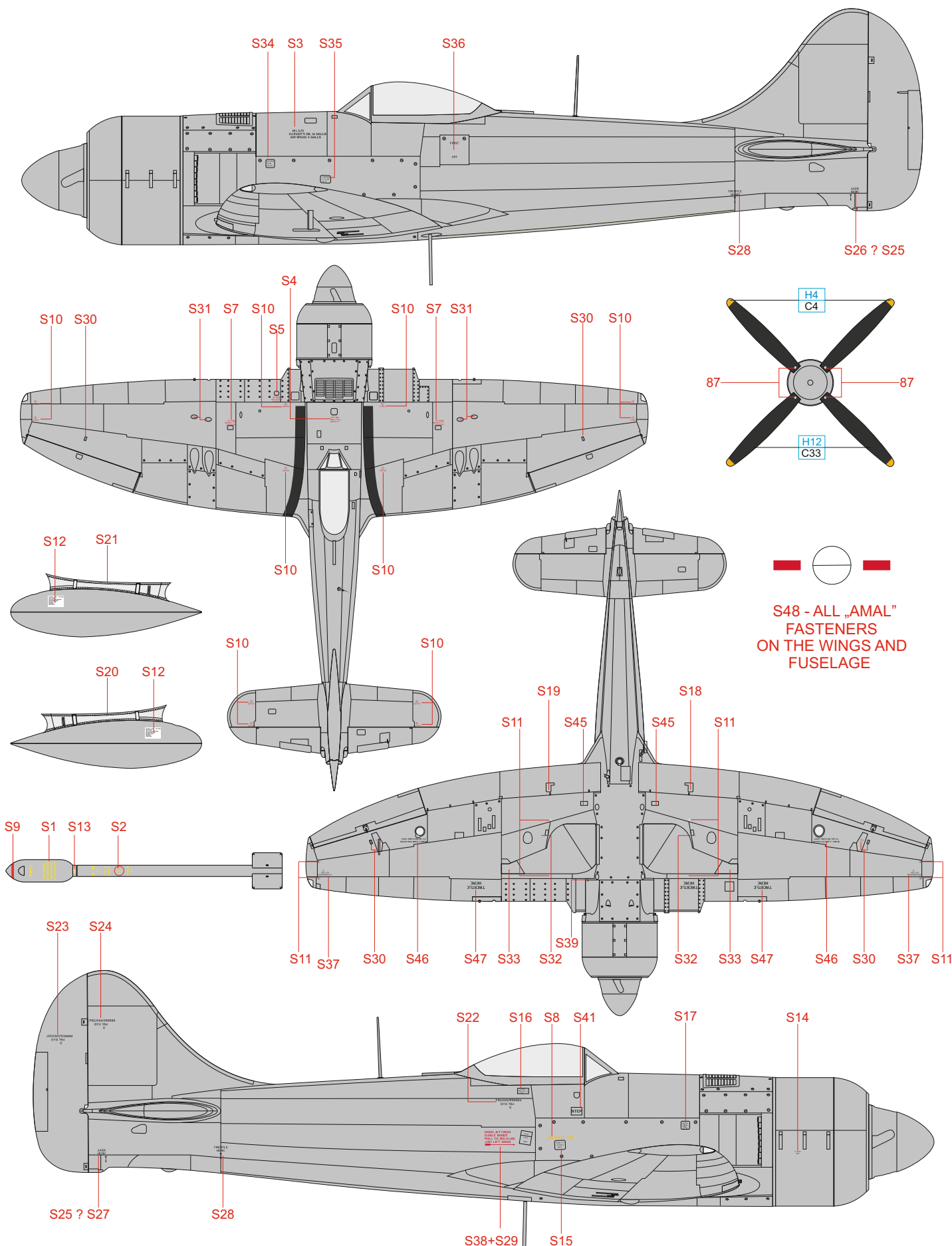
**D** HA626 (ex MW391), F/O, Ian S. Loughran, No. 10 Squadron, Royal Indian Air Force, Jamnagar, India, January 1952

HA626 flew with the No. 10 Squadron carrying the original aluminum scheme with the fuselage national insignia in place of the original "Chakra" markings. There is the IAF No. 10 Squadron insignia in the form of a Winged Dagger in the yellow circle painted under the windshield. It was designed by F/O Ian Steele "Lucky" Loughran and painted for the first time on Tempest Mk.II serial number HA626.



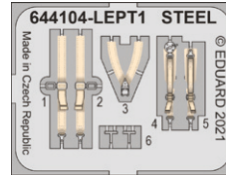
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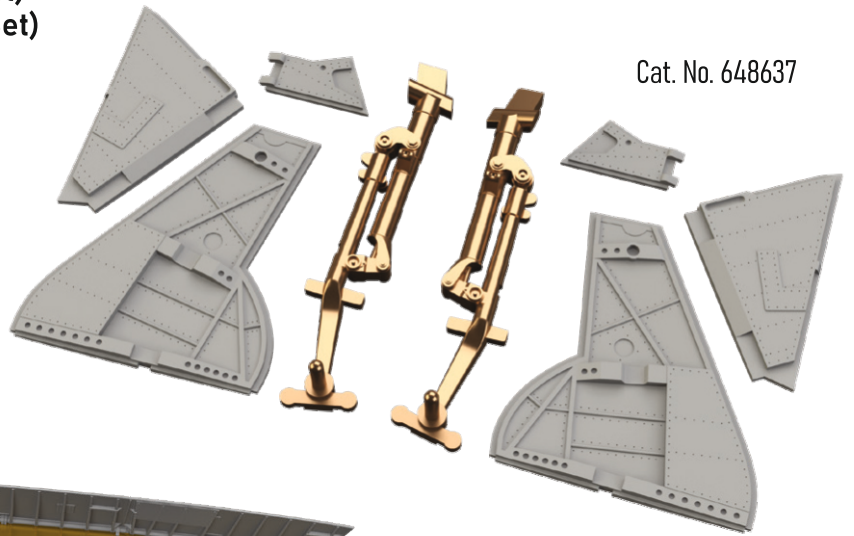


- 481064 Tempest Mk.II landing flaps (PE-Set)
- FE1208 Tempest Mk.II seatbelts STEEL (PE-Set)
- 644104 Tempest Mk.II LööK (Brassin)
- 644115 Tempest Mk.II LööKplus (Brassin)
- 648636 Tempest Mk.II wheels (Brassin)
- 648637 Tempest Mk.II undercarriage legs BRONZE (Brassin)
- 648638 Tempest Mk.II gun bays (Brassin)
- 648639 Tempest Mk.II cockpit (Brassin)
- 648641 RP-3 60lb rockets for Tempest Mk.II (Brassin)
- 648654 Tempest Mk.II exhaust stacks (Brassin)
- 648686 Tempest Mk.II landing flaps PRINT (Brassin)
- SIN64875 Tempest Mk.II ESSENTIAL (Brassin)
- 3DL48030 Tempest Mk.II SPACE (3D Decal Set)
- D48086 Tempest Mk.II stencils (Decal Set)
- D48087 Tempest Mk.II roundels (Decal Set)
- EX796 Tempest Mk.II TFace (Mask)

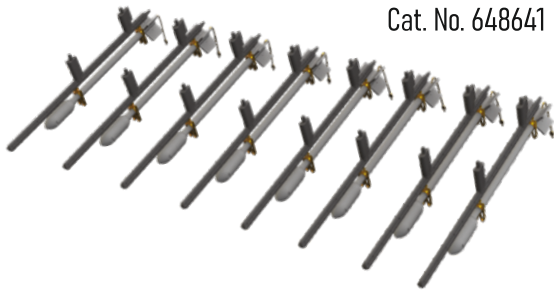
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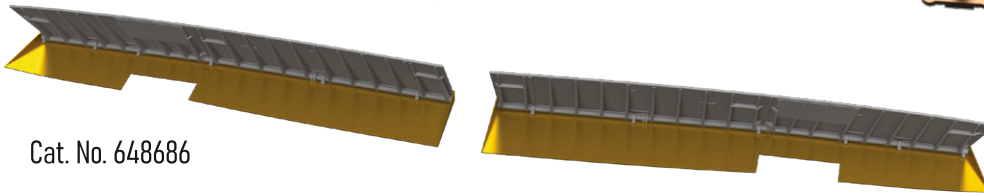
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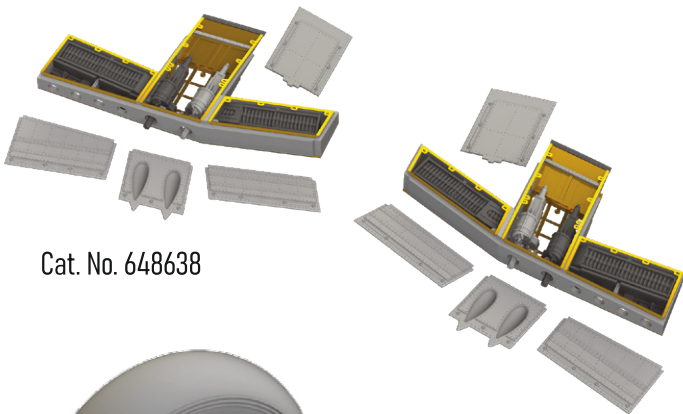
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Cat. No. 648638



Cat. No. 648636

