

1:32 SCALE PLASTIC KIT



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Bf 109 intro

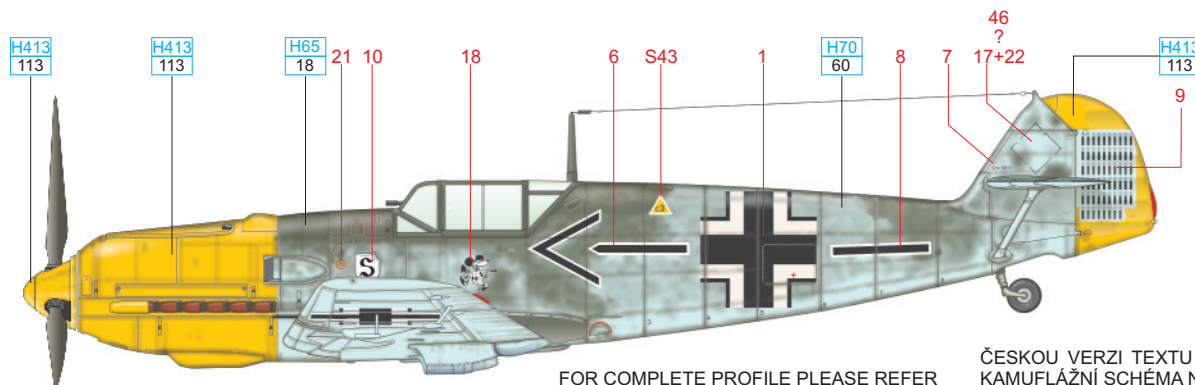
No other aircraft of the German Luftwaffe is so intimately connected with its rise and fall in the course of the Second World War than the Messerschmitt Bf 109. This type, by whose evolution outlived the era in which it was conceptualized, bore the brunt of Luftwaffe duties from the opening battles of Nazi Germany through to her final downfall. The history of the aircraft begins during 1934-35, when the Reich Ministry of Aviation formulated a requirement for the development of a single-engined monoplane fighter. Proposals were submitted by Arado, Heinkel, Focke-Wulf and Bayerische Flugzeugwerke. The last mentioned firm featured a technical director named Professor Willy Messerschmitt, who was riding a wave of popularity based on the success of his recent liaison aircraft, the Bf 108. His goal was to conceive of an aircraft with the best possible performance for the specified weight, size, and aerodynamic qualities. Over the subsequent months, several prototypes were built that served first and foremost in development flights and further modifications. The aircraft was relatively small, and compared to the prevailing trends of the time, docile with revolutionary features such as low wing design, the use of a retractable landing gear, a wing with a very narrow profile, wing slats, landing flaps, weapons firing through the prop arc, and so on. Even the enclosed cockpit and the method of construction were not very common just four years prior to the beginning of the Second World War. At its conception, the Bf 109 was a very promising asset despite some powerplant troubles. These were solved by the introduction of the DB601. This engine, together with its extrapolated development DB605, are umbilically connected to the types success. These two-row, twelve cylinder inverted V engines powered several tens of thousands of '109s in over 25 versions and variants.

The first combat use was by three developmental Bf 109s in the Spanish Civil War, where they were delivered in December, 1936. The pre-series airframes were to, first of all, validate the aircraft's abilities in modern aerial combat. Shortly thereafter, production machines in the form of the Bf 109B-1 began to reach 2./J.88, the Legion Condor. The desire of Germany to demonstrate her aerial prowess to potential foes was advanced further in international sport meets. The triumphs attained in Zurich in the summer of 1937 were complemented several months later by grabbing the speed record of 610.95 kph. In very short order, the progressive developments represented by the C, D and E versions appeared. Despite this, the delivery of the types to combat units did not sustain a rate that was desired by military brass. Even by August, 1938, the Bf 109 accounted for less than half of the 643 front line fighters in service. The later months saw an increase in these rates. By the time of the invasion of Poland (which saw the participation of only a little more than 200 aircraft) the Luftwaffe possessed the best fighter produced in continental Europe. With both a qualitative and quantitative advantage, the fighter wing of the Luftwaffe entered the Polish campaign, the first defenses of the Fatherland, Blitzkrieg against the West, and the Battle for France. With one foot in the door that was the English Channel, the Luftwaffe embarked on the attacks on Britain in the summer months of 1940. Here, the first weakness of the Bf 109 was revealed: the inability to carry drop tanks that would have enabled the type to effectively escort bombers to England. This was one of the factors that made the defeat of the Luftwaffe in the Battle of Britain possible. Experiences gained in 1940 led to the development of the 'F' version prior to the spring of 1941. The elegance of the Bf 109 crested with the 'Friedrich'. Following a largely defensive stance over the Channel and northern France, the Bf 109F took on a more offensive role in Operation Barbarossa in the east, and in northern Africa. In later duties with the 'Jagdwaaffe' during the second phase of the war in the east, and in the 'Defense of the Reich' from 1943 to 1945, the Bf 109 served in the form of the 'G' version, followed by the 'K'. Even if by the end of the war it was clear that the development of the Bf 109 was exhausted, during its combat career, the type was able to keep pace with the foes that it encountered. Besides its primary function as fighter, the Bf 109 also appeared as a fighter-bomber, reconnaissance platform, night fighter, trainer and rammjager.

The disappearance of the Bf 109 from the skies over Europe was not spelled out by the end of the war. Bf 109s served in Balkan countries (Yugoslavia and Bulgaria), several examples were in Swiss service up to 1949, and many flew in the air force of Czechoslovakia in both original form with a DB605 powerplant and as aircraft built out of necessity with surplus Jumo 211s. The latter type also served as the first fighter to fight for the independence of the newly formed state of Israel. Finland retired the type as recently as 1954, and Spain didn't retire its HA-1109-1112, rebuilt Bf109s, until 1967. The legendary low-wing fighter of Professor Willy Messerschmitt survived the state that developed it.

The Bf 109E-4 version

The Bf 109E-4 was a logical development of the earlier E-1 and the up-armed E-3. Combat units in western Europe requested more modern cannon armament, and so the E-4 carried two MG-FF/M cannon in the wings. These allowed the firing of explosive rounds ('Minengeschloss'). Together with two large caliber MG 17 machine guns, this gave the pilots a significantly increased amount of firepower. Along with some airframe changes, there was the significant improvement of armor plating behind the pilot's head. There was a new canopy added that improved visibility and safety during minor mishaps. This canopy was also retrofitted to earlier E-1 and E-3 aircraft. In July, 1940, DB 601N engines offering better high altitude performance were installed, giving birth to the Bf 109E-4/N. The addition of the ETC 250 bomb rack, and the ETC 50, gave rise to the 'Jabo' version E-4B and E-4B/N. The Bf 109E-4 was the basic version for all subsequent Emil types developed.



FOR COMPLETE PROFILE PLEASE REFER
www.eduard.com/s/3003

ČESKOU VERZI TEXTU A KOMPLETNÍ
 KAMUFLÁŽNÍ SCHEMA NALEZNETE NA
www.eduard.com/s/3003

E "←-+→", W.Nr. 5819, Obstlt. Adolf Galland, Geschwaderkommodore JG 26, Audembert, France – Dec.1940

The relative simplicity of the camouflage scheme of Messerschmitt Bf 109E W.Nr. 5819 doesn't detract from its attractiveness. The aircraft is not only interesting in its non-standard application of identification markings and emblems, but also by virtue of the pilot that flew it in combat. Few in the Luftwaffe could claim to garner as much attention from the beginning of the war to its conclusion as Adolf Galland, ace, future General and often at odds with Hermann Goering. With the illustrated Emil, Adolf Galland flew in the fall of 1940 to the beginning of 1941 as CO of III. Gruppe, and later of the entire JG 26. The tactical markings on the aircraft kept pace with those changes. Changes reflecting the evolution were made in the color applications and, of course, the victory tabs. The standard camouflage of 02/71/65 was darkened on the fuselage sides with RLM 02/71 as was typically the case. The difference came in the application. In the case of Galland's plane, it consisted of random, relatively large, squiggles, sprayed on. The yellow cowling was complemented by the yellow rudder that also bore the kill marks. The surface area of the original RLM65 was not enough after some time, and the yellow was oversprayed with fresh RLM65 for the next row of kill marks. The most typical changes for 5819 at this time came with the personal emblem of Mickey Mouse and most of all the installation of the ZFR-4 telescope (installed together with the regular Revi). It didn't serve as an actual sight as it did for the identification of far off aircraft. According to photographic and written evidence, Adolf Galland used other Bf 109E-4 besides 5819 with the same markings and changes, differing only in details such as stencil data and paint patterns.

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 započetím 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.



lire soigneusement la fiche d'instructions avant d'assembler. Ne pas utiliser de colle ou de peinture à proximité d'une flamme nue, et aérer la pièce de temps en temps. Garder hors de portée des enfants en bas âge. Ne pas laisser les enfants mettre en bouche ou sucer les pièces, ou passer un sachet vinyl sur la tête.



Von dem Zusammensetzen die Bauanleitung gut durchlesen. Kleber und Farbe nicht nahe von offenem Feuer verwenden und das Fenster von Zeit zu Zeit Belüftung öffnen. Bausatz von kleinen Kindern fernhalten. Verhüten Sie, daß Kinder irgendwelche Bauteile in den Mund nehmen oder Plastiktüten über den Kopf ziehen.



組み立てる前に必ず説明書をお読み下さい。接着剤や塗料をご使用の際は、窓を開けて十分な換気をおこない、火のそばでは使用しないで下さい。小さな子供の手が届かない所に必ず保管してください。部品や破片を噛んだり、なめたり、飲んだりすると大変危険です。又、部品を取り出した後のビニール袋は、小さな子供が頭から被ったりすると窒息する恐れがありますので、破り捨ててください。

INSTRUCTION SIGNS

* INSTR. SYMBOL

* INSTRUKTION SINNBILDEN

* SYMBOLES

* 記号の説明



OPTIONAL
VOLBA
FACULTATIF
NACH BELIEBEN
選択する



BEND
OHNOU
PLIER SIL VOUS PLAIT
BITTE BIEGEN
折る



OPEN HOLE
VYVRTAT OTVOR
FAIRE UN TROU
OFFNEN
穴を開ける



SYMETRICAL ASSEMBLY
SYMETRICKÁ MONTÁŽ
MONTAGE SYMÉTRIQUE
SYMMETRISCHE AUFBAU
左右均等に組み立てる



NOTCH
ZÁŘEZ
L'INCISION
DER EINSCHNITT
切る



REMOVE
ODŘÍZNOUT
RETIRER
ENTFERNEN
移す



APPLY EDUARD MASK
AND PAINT
POUŽÍT EDUARD MASK
NABARVIT

PARTS



DÍLY



TEILE



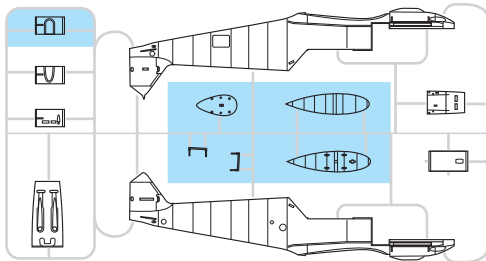
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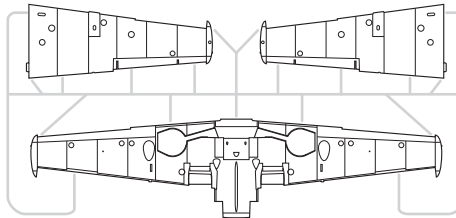
部品

PLASTIC PARTS

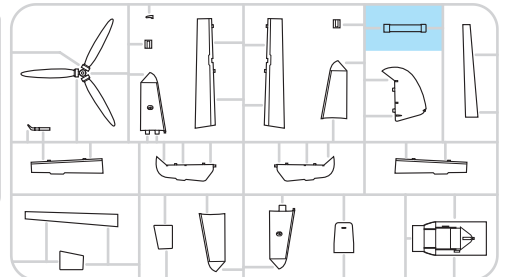
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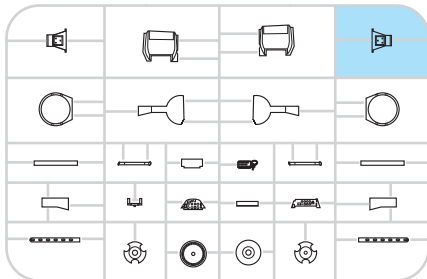
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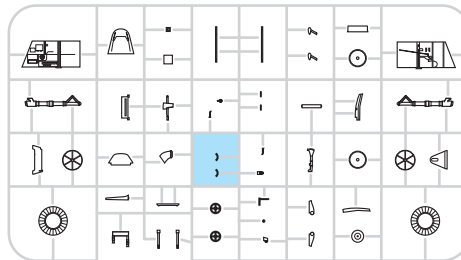
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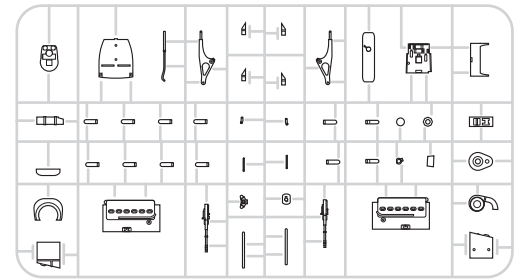
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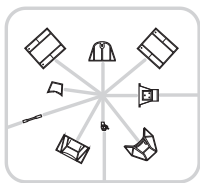
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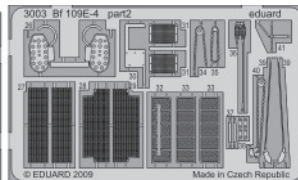
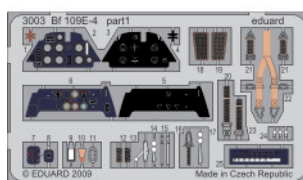
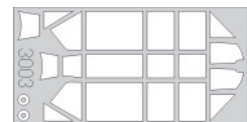
G>



I>



PE - PHOTO ETCHED DETAIL PARTS

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MASK

-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



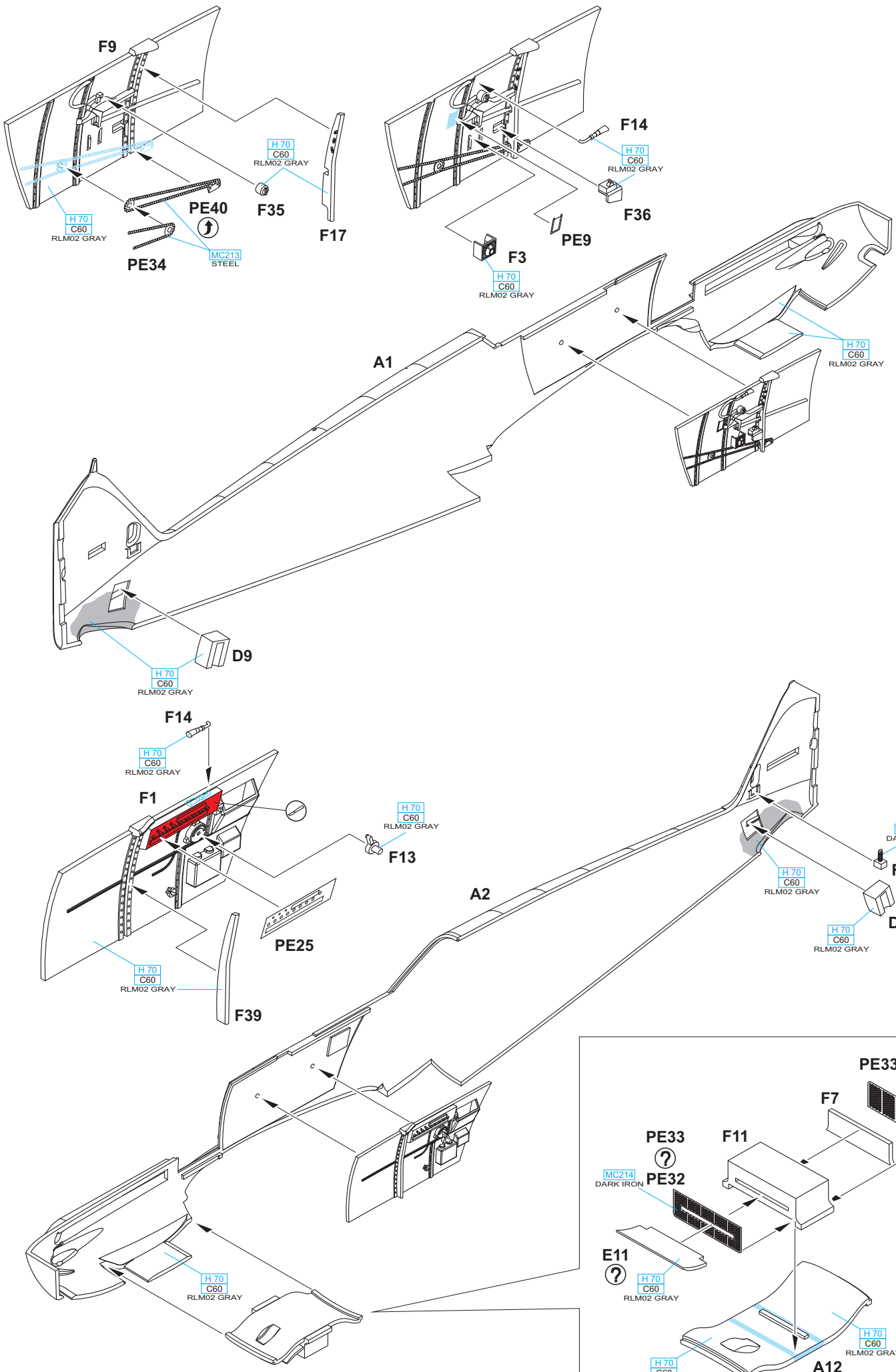
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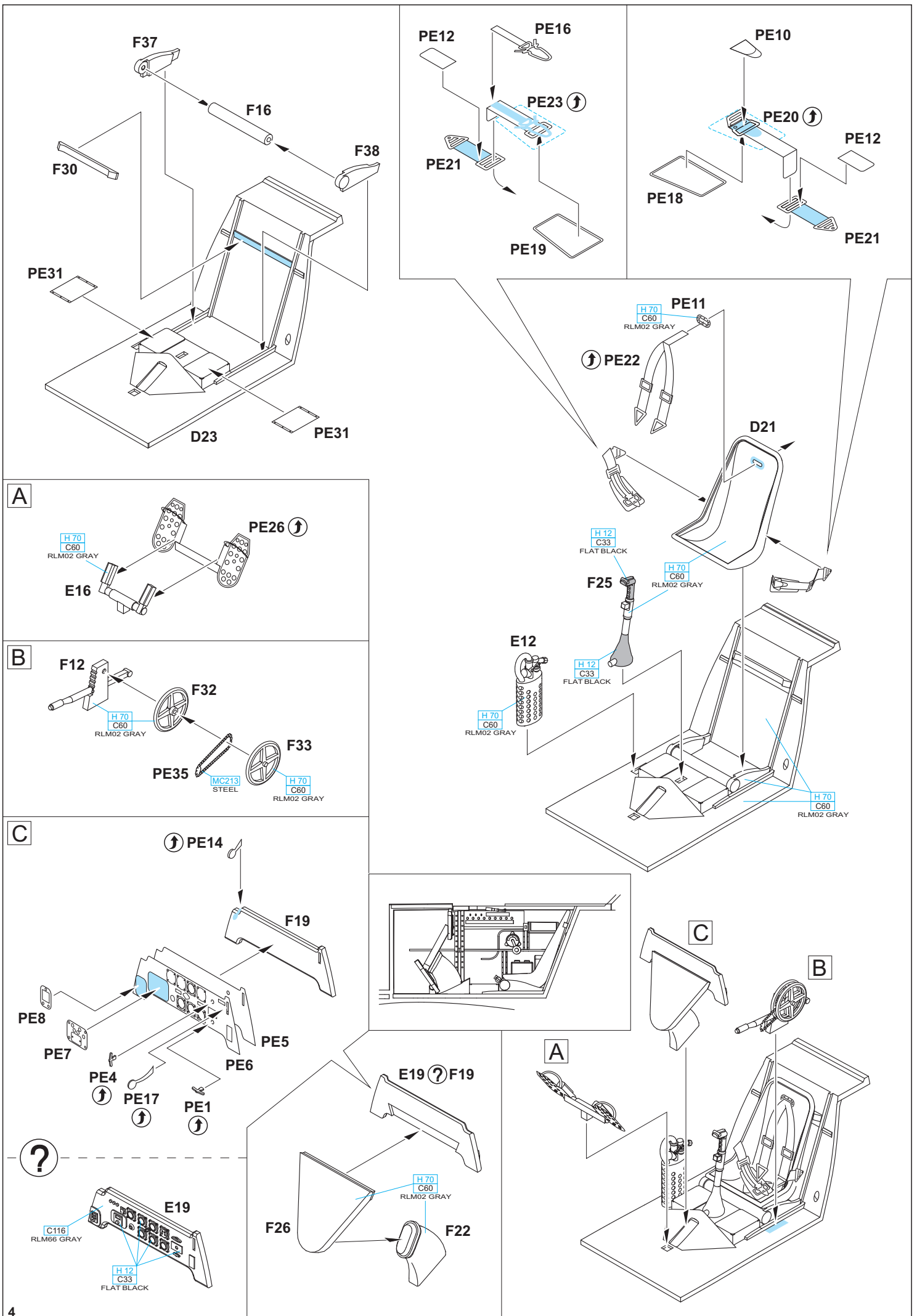


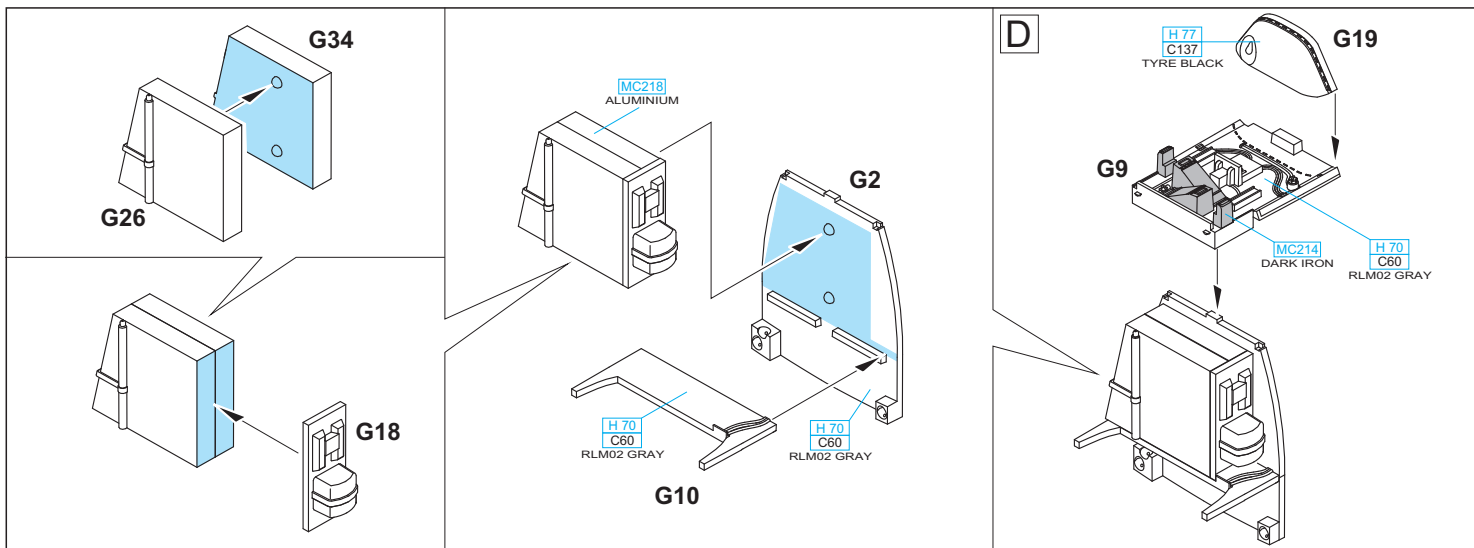
色

GSi Creos (GUNZE)			
AQUEOUS	Mr.COLOR		
	C4	YELLOW	
	C62	FLAT WHITE	
	C33	FLAT BLACK	
	C41	RED BROWN	
	C17	DARK GREEN	RLM 71
	C18	BLACK GREEN	RLM 70
	C60	GRAY	RLM 02
	C137	TIRE BLACK	

AQUEOUS	Mr.COLOR		
		RUST	
	C113	YELLOW	RLM 04
	C116	BLACK GRAY	RLM 66
	C117	LIGHT BLUE	RLM 76
Mr.METAL COLOR			
		STEEL	
		DARK IRON	
		ALUMINIUM	





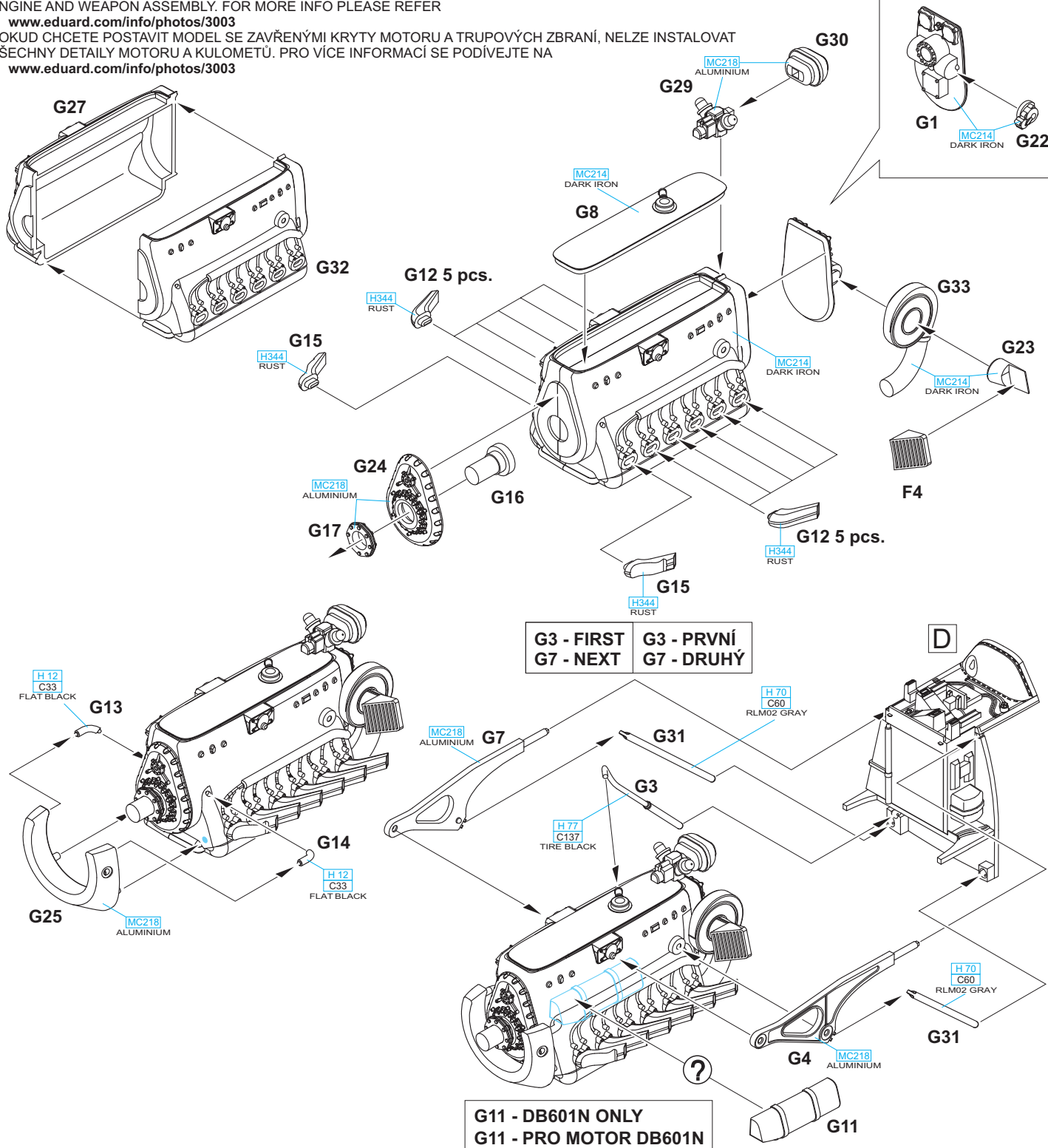


TO BUILD THE MODEL WITH THE CLOSED ENGINE COWLING AND THE WEAPON COVER, YOU CAN'T INSTALL THE COMPLETE ENGINE AND WEAPON ASSEMBLY. FOR MORE INFO PLEASE REFER

www.eduard.com/info/photos/3003

POKUD CHCETE POSTAVIT MODEL SE ZAVŘENÝMI KRYTY MOTORU A TRUPOVÝCH ZBRANÍ, NELZE INSTALOVAT VŠECHNY DETAILY MOTORU A KULOMETŮ. PRO VÍCE INFORMACÍ SE PODÍVEJTE NA

www.eduard.com/info/photos/3003



?

E24

G16

D

ALTERNATIVE ASSEMBLY FOR
CLOSED ENGINE COWLING.
ALTERNATIVNÍ SESTAVA PRO
ZAVŘENÝ KRYT MOTORU.

A2

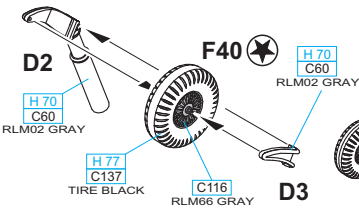
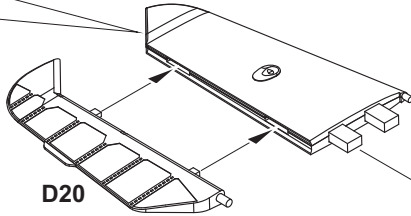
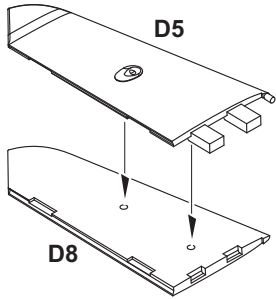
F2

H 70
C60
RLM02 GRAY

A1

F2

D23



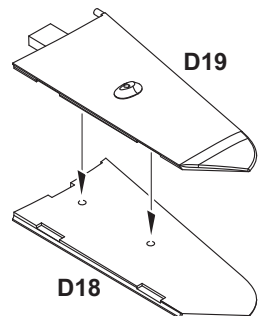
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D17

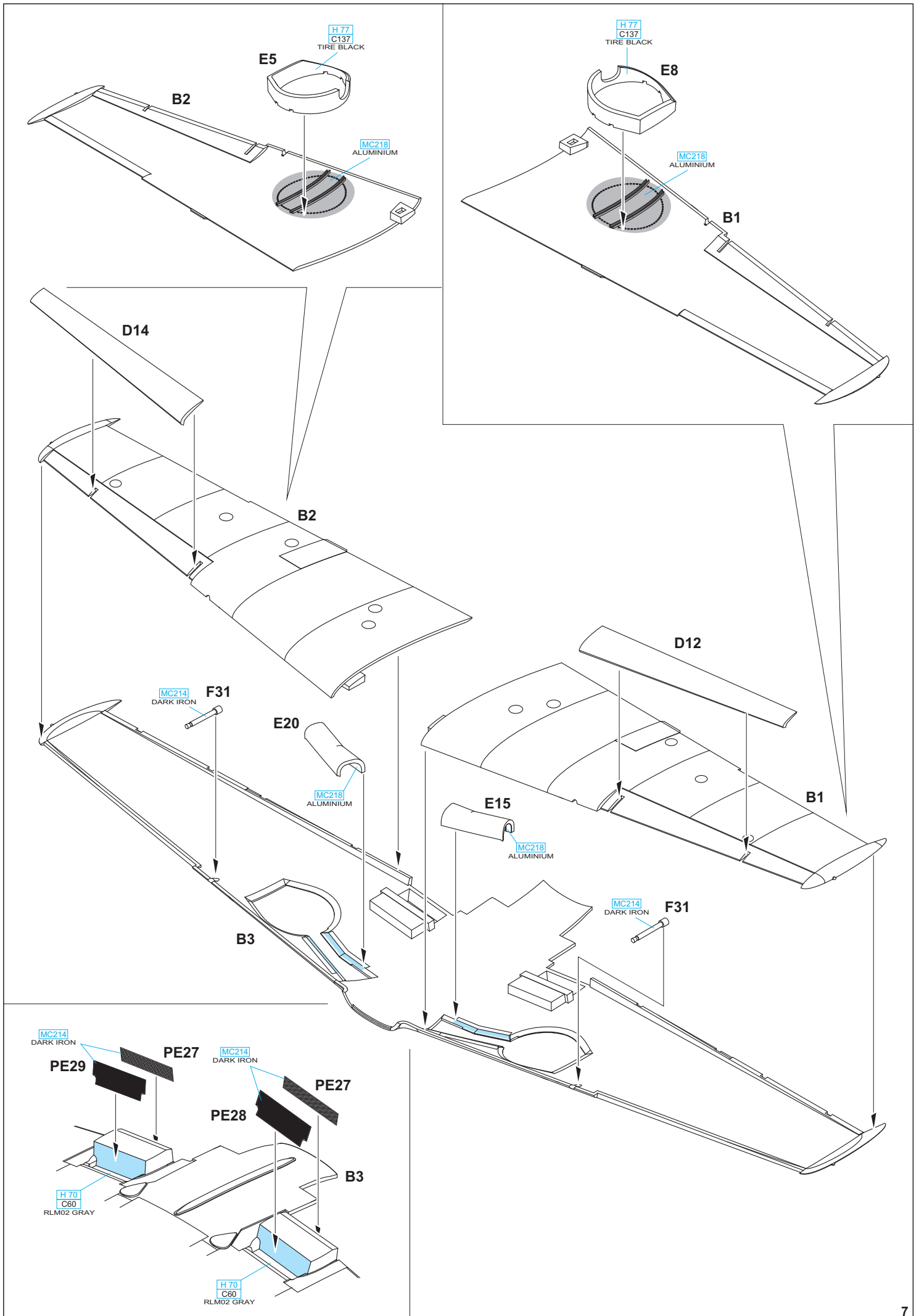
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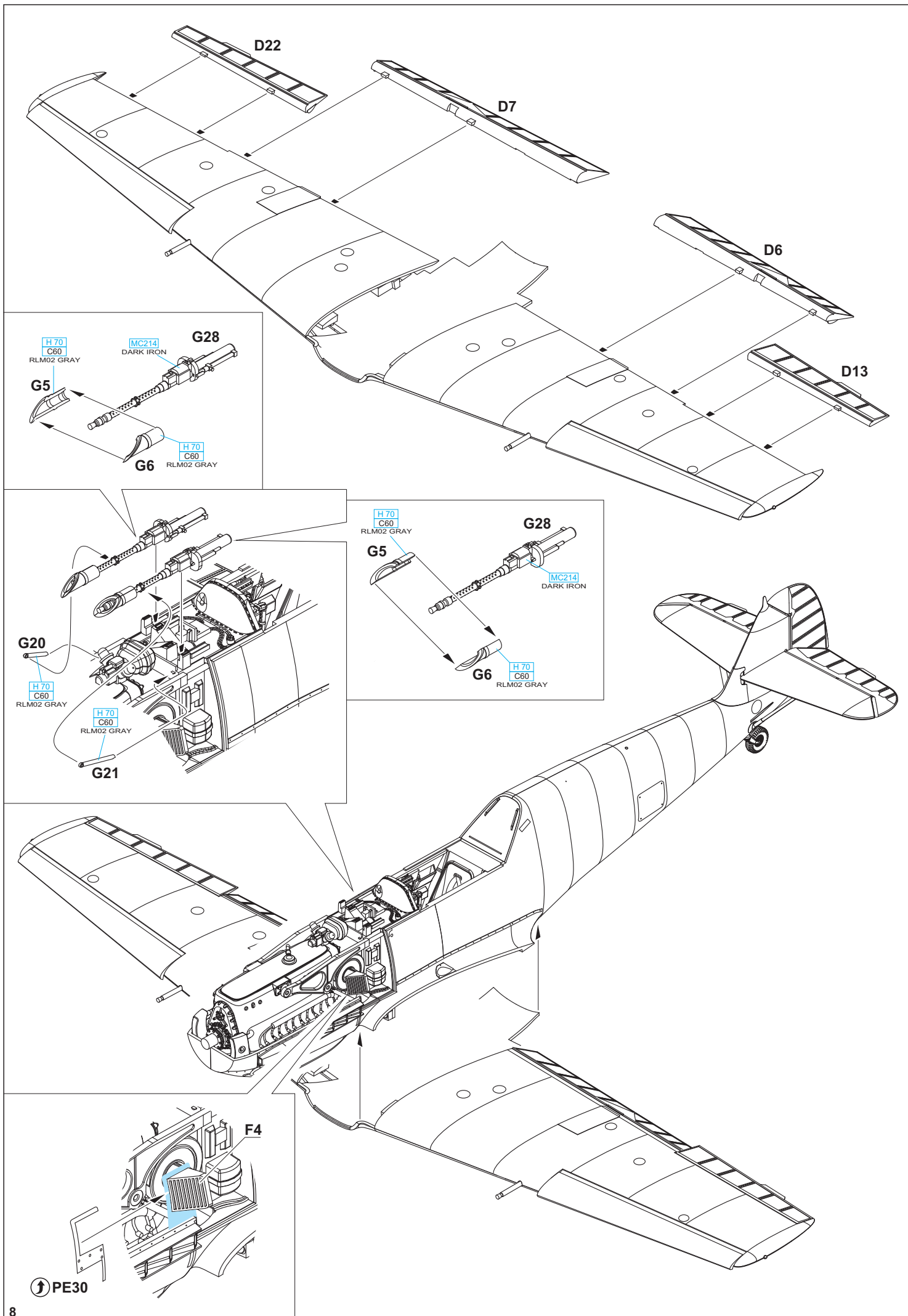
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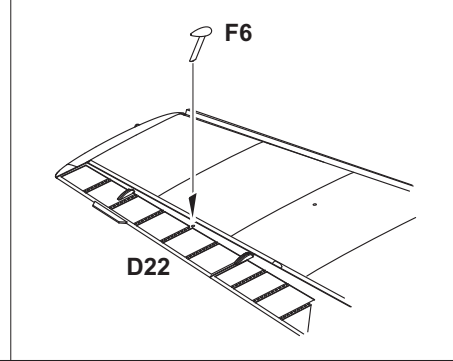
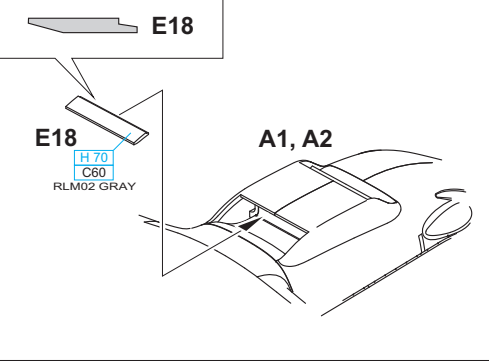
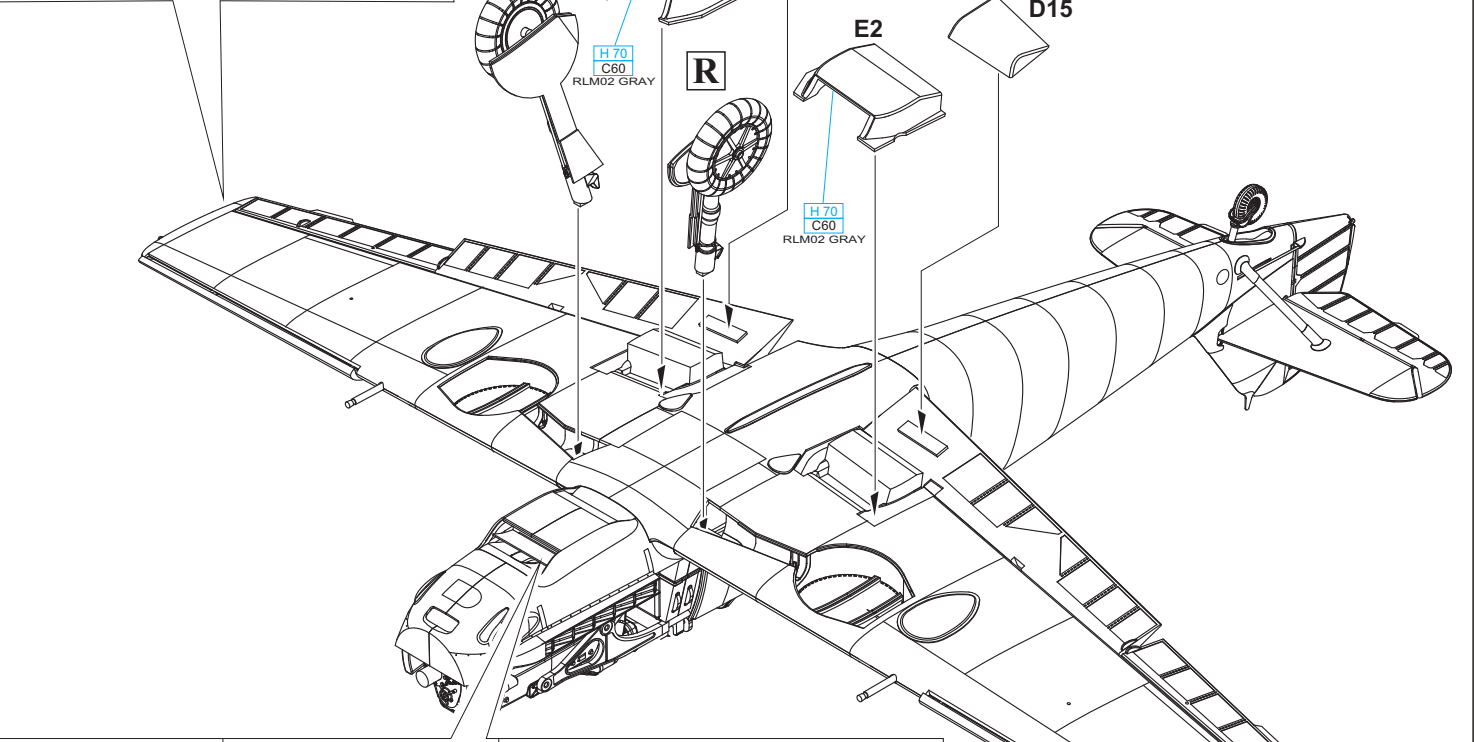
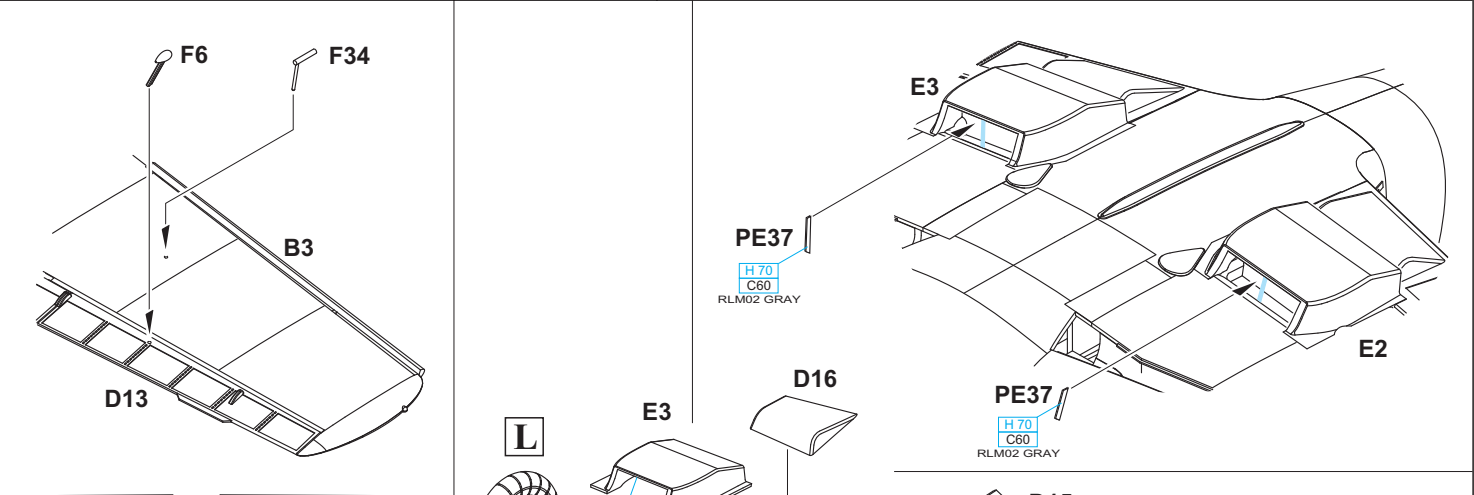
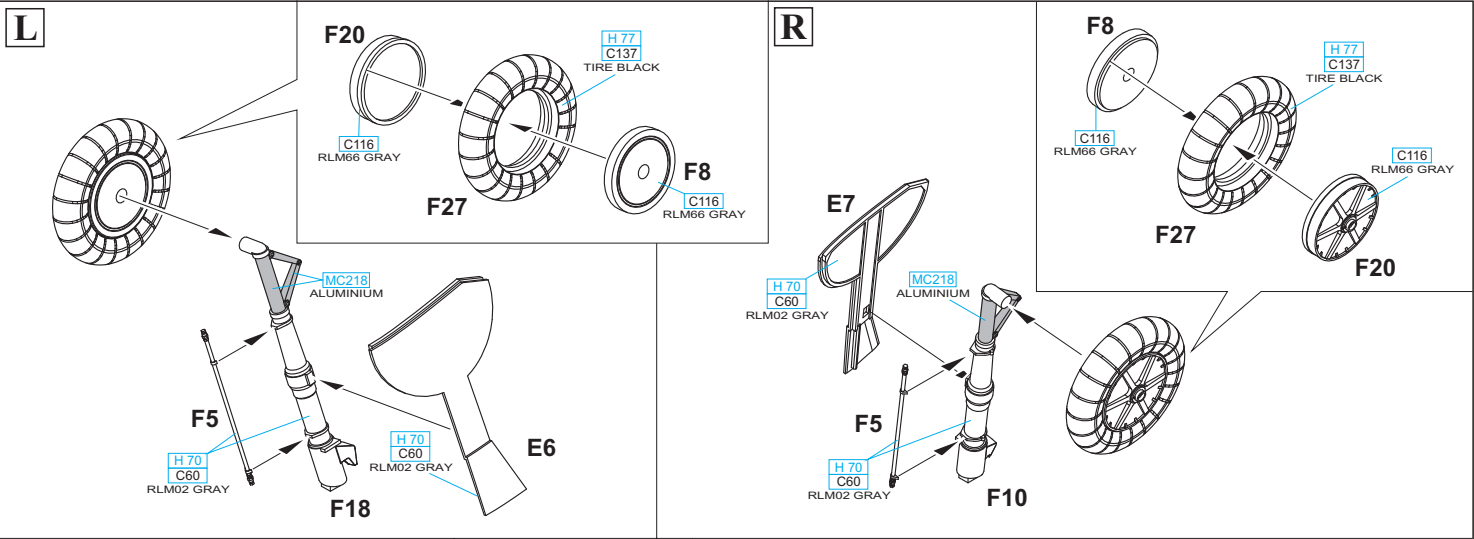
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D18

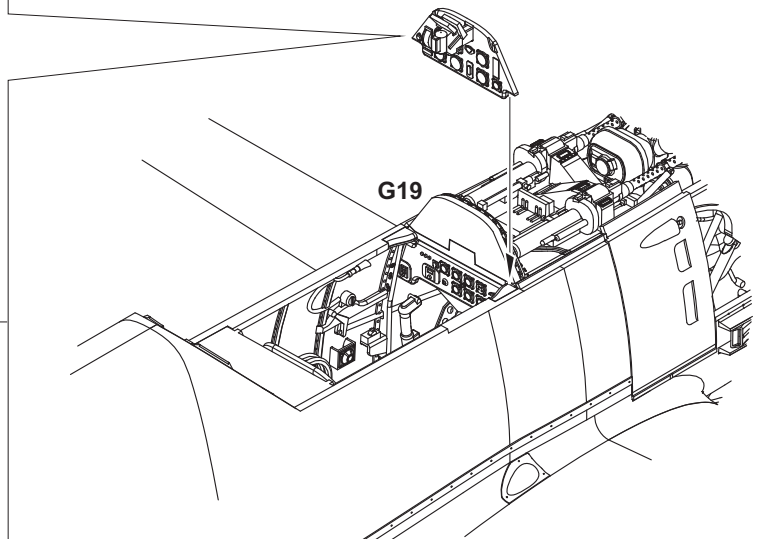
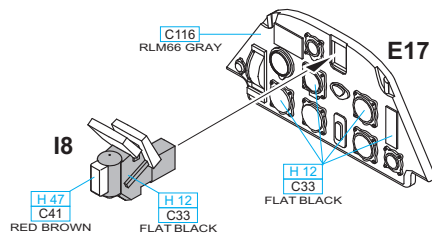
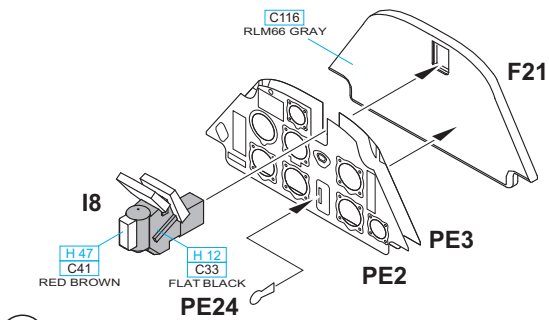
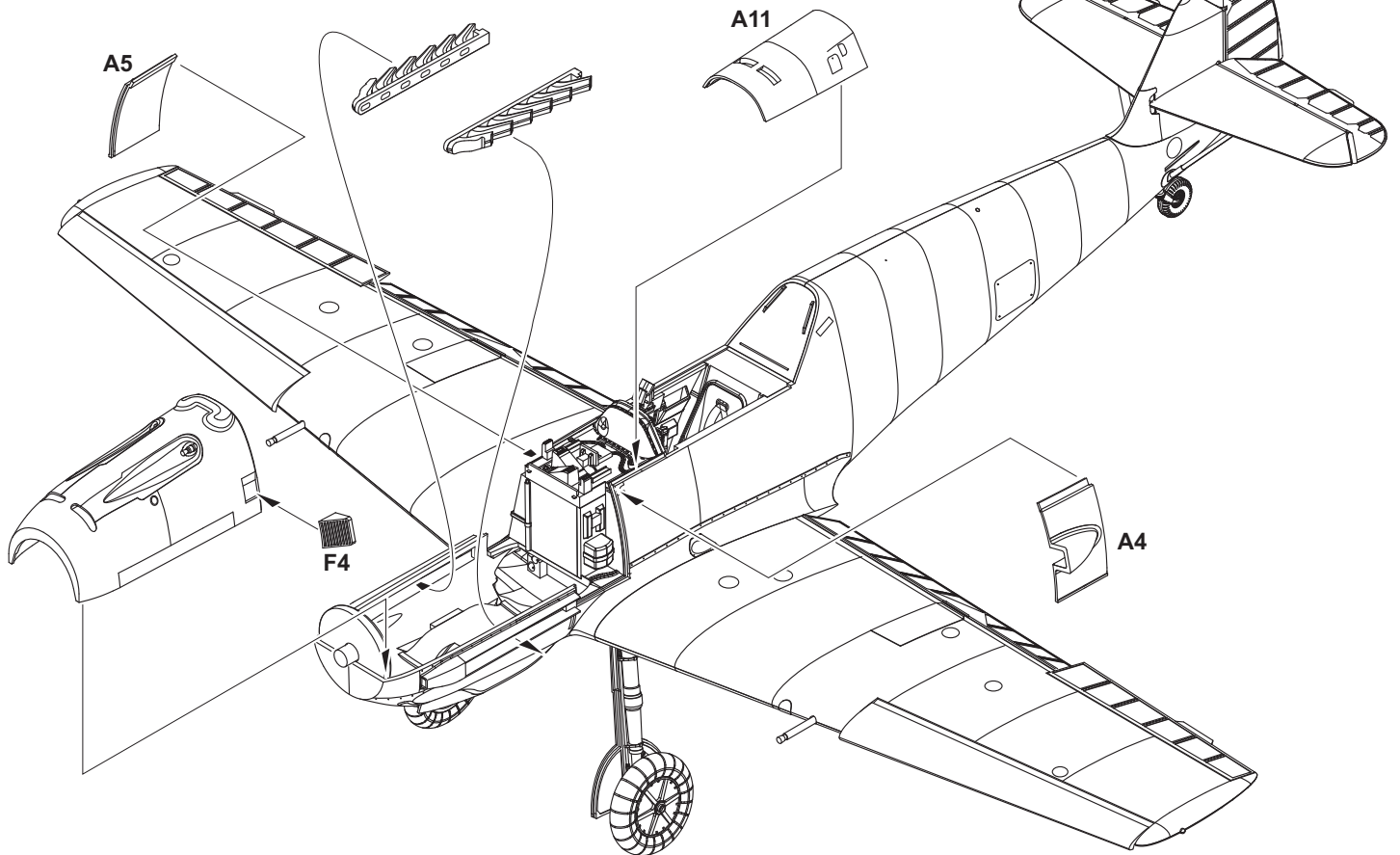
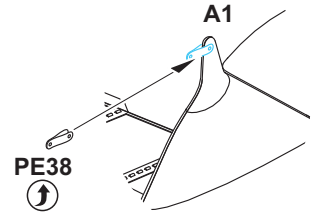
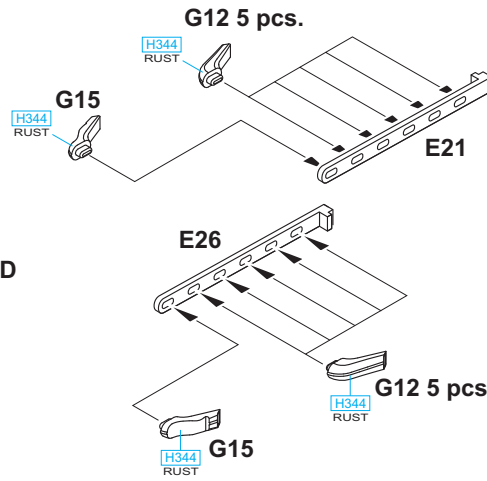
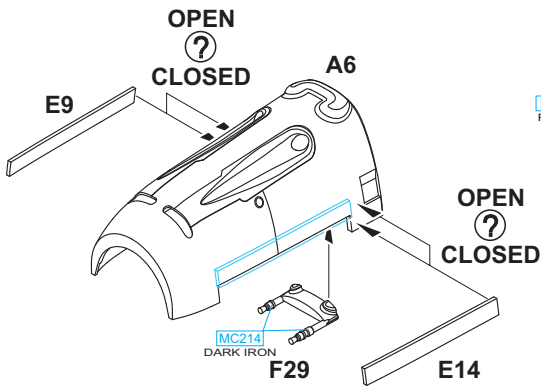




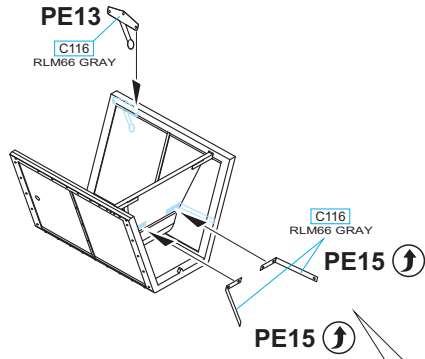
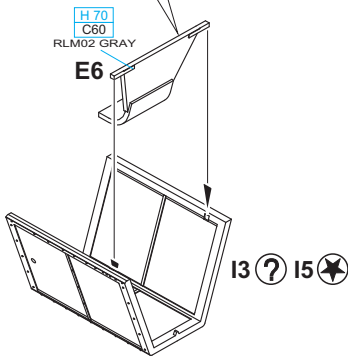




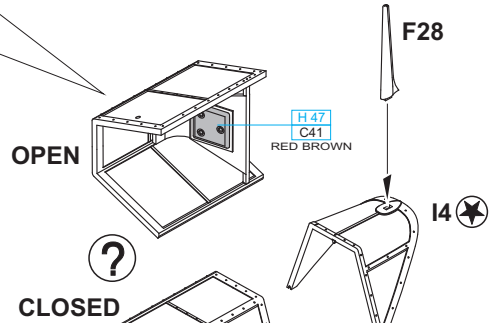
**ALTERNATIVE ASSEMBLY FOR CLOSED ENGINE COWLING.
ALTERNATIVNÍ SESTAVA PRO ZAVŘENÝ KRYT MOTORU.**



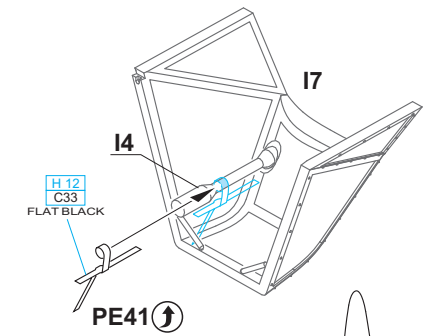
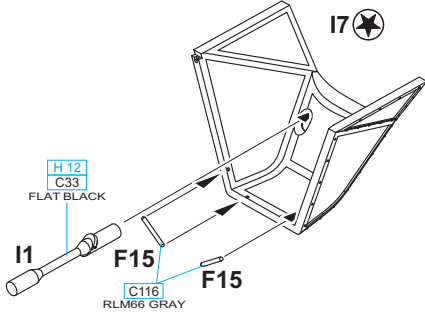
E1 - MARKING A ONLY



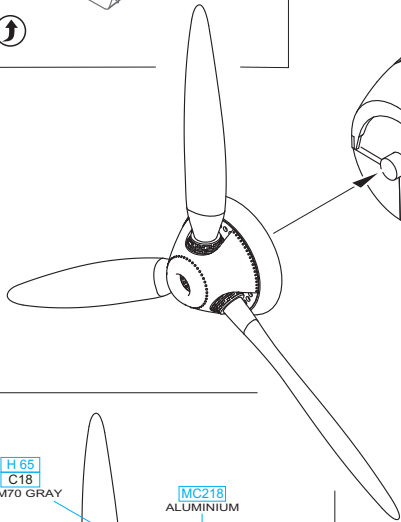
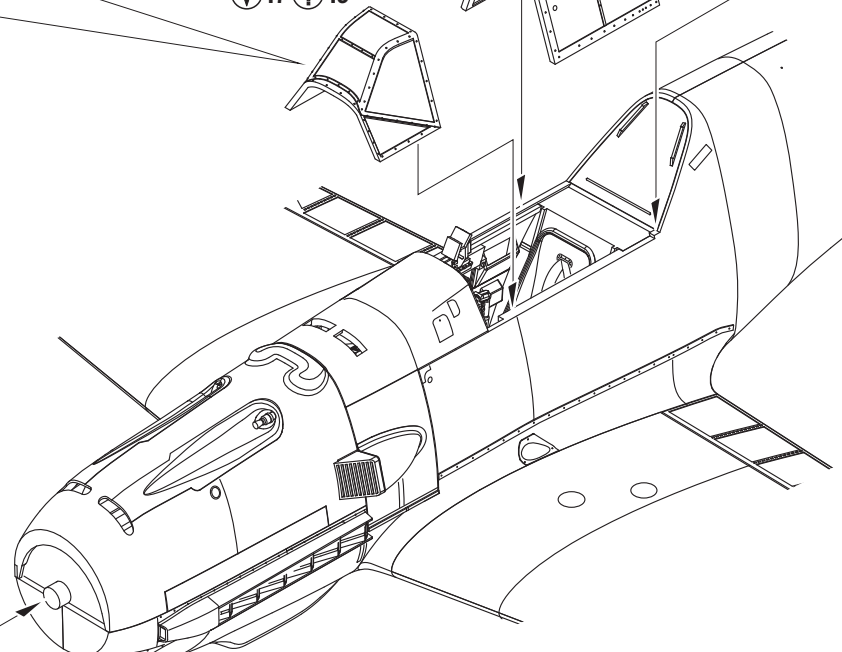
PE15 - MARKING A ONLY



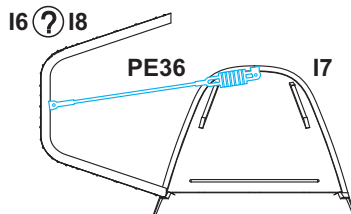
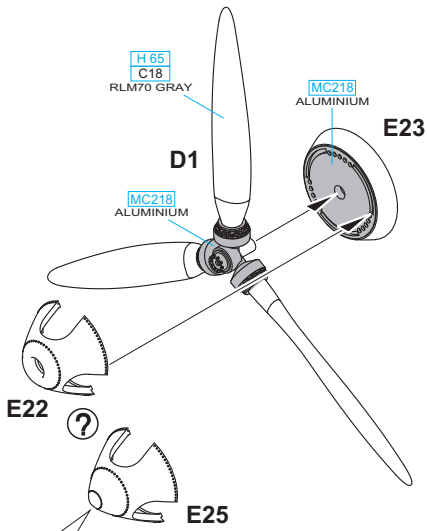
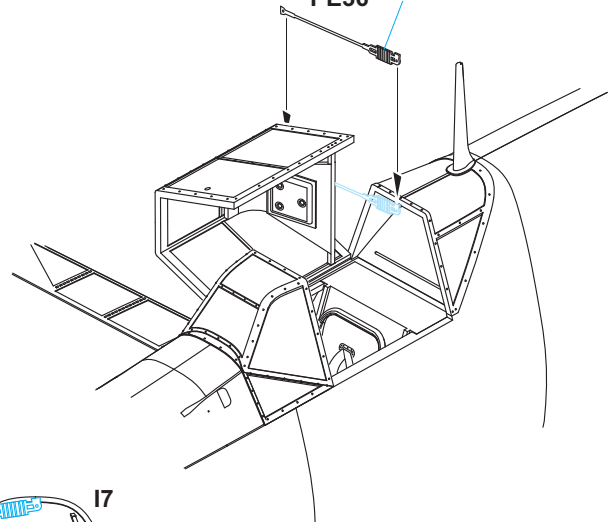
FOR GALLAND'S 5819 ONLY



★ I7 ? I9



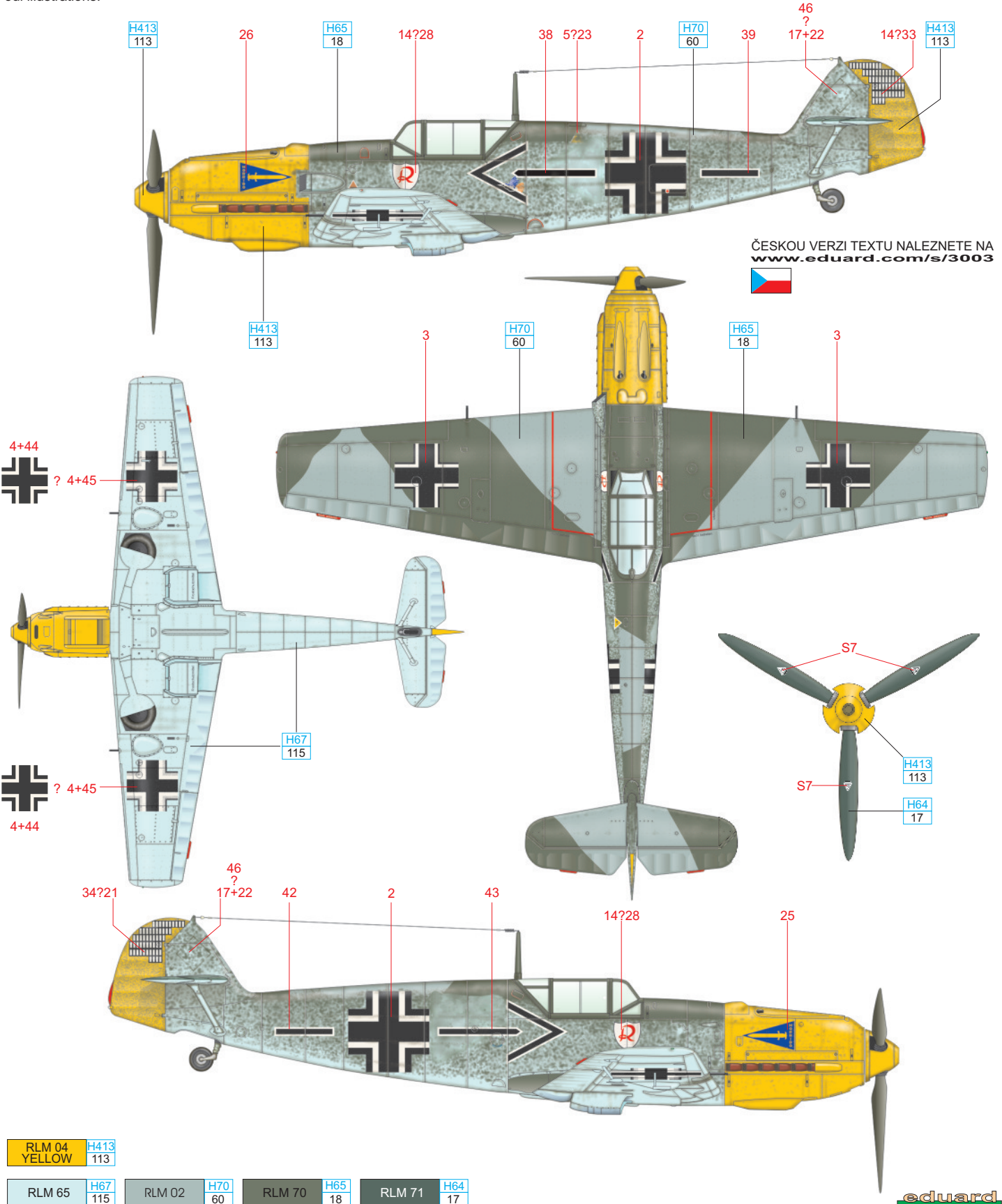
★ H 12 C33 FLAT BLACK
PE36



E25 - FOR GALLAND'S 5819 ONLY

The appearance of this aircraft comes from a period in time when it was flown by Maj. Helmut Wick, and after many modifications to the camouflage scheme and tactical markings. The changes mirrored not only Wick's ascension through the ranks as Staffel CO, to Gruppe leader to commanding officer of JG 2, but also the prescribed changes to Luftwaffe camouflage specifications in the second half of 1940. Our reconstruction of the aircraft shows as it appeared in its final guise, when Maj. Wick (as the Luftwaffe's most successful ace at that time) was killed in combat with Spitfires on November 28, 1940. The aircraft carried a standard scheme of 02/71/65. The light blue fuselage sides were darkened with a light overspray of RLM 71 applied with the blunt end of a brush. The yellow rudder and nose segments were similarly dulled. The yellow rudder and nose segments were part of later marking modifications. The fuselage retains evidence of the double chevron marking denoting the CO of the Gruppe. Besides the tactical markings, the JG 2 unit insignia was carried below the cockpit, and on the front fuselage, Wick's original 3. Staffel. The pilot's personal emblem, the flying kingfisher, was partly oversprayed with the Kommodor insignia, over which the emblem was partially reconstructed. This aircraft had the armored windscreen removed towards the end of its career, but was still mounted when Wick led I./JG 2.

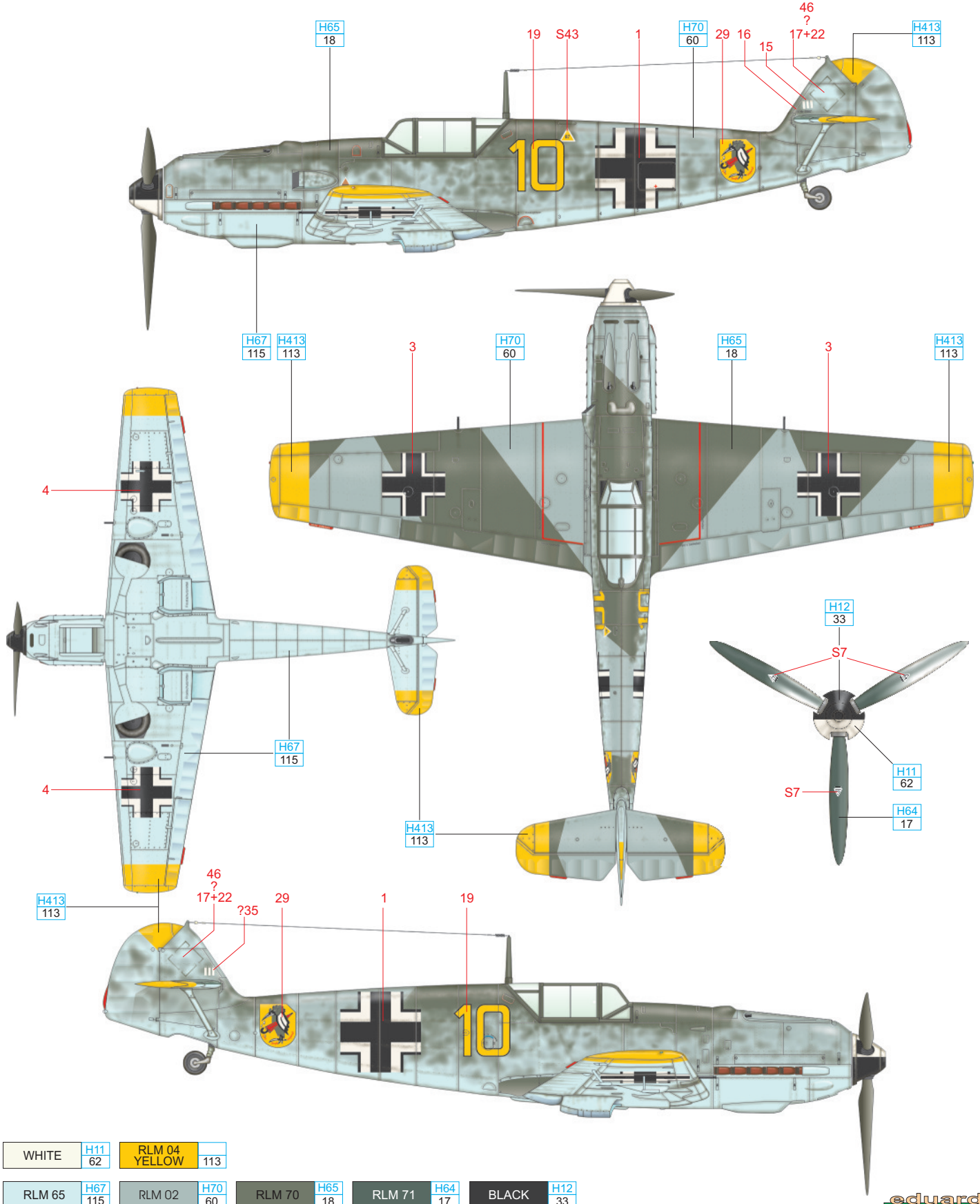
One interesting point regarding the national markings on the bottom of the wings and fuselage sides that was present on many JG 2 Emils, including Wick's 5344, was that the fuselage markings had an accentuated black border at the expense of the white segments, while those on the bottom of the wings were modified as indicated in our illustrations.



B "Yellow 10", W.Nr. 5587, Ofw. Fritz Beeck, 6./JG 51, Wissant, France – 24 August 1940

Simple but effective camouflage adorned this aircraft that shortly after noon on August 28, 1940, was shot down with Ofw. Fritz Beeck at the controls in the vicinity of East Langdon. It was during the second escort mission of the day that culminated in combat with RAF fighters in which the engine of Yellow '10' was hit. After an unavoidable forced landing, the aircraft, in relatively good shape, was made otherwise by civilian vandals and allied soldiers before it could be inspected by RAF experts. Light blue sides of the 02/71/65 fuselage scheme were sprayed with the upper surface colors. Yellow identification colors, typical for mid-August, 1940, were applied to the wing tips, horizontal tail surfaces, and top portion of the fin. Because the aircraft in question belonged to 6. Staffel, tactical numbering and the background II./JG 51 'Gott strafe England' emblem were yellow. Three victory tabs on the left side were in white. It is not out of the question that these also appeared on the right side, but documentation is lacking. The propeller hub, as was typical for the period, is in black (or RLM 71) and white, in this case split down the middle.

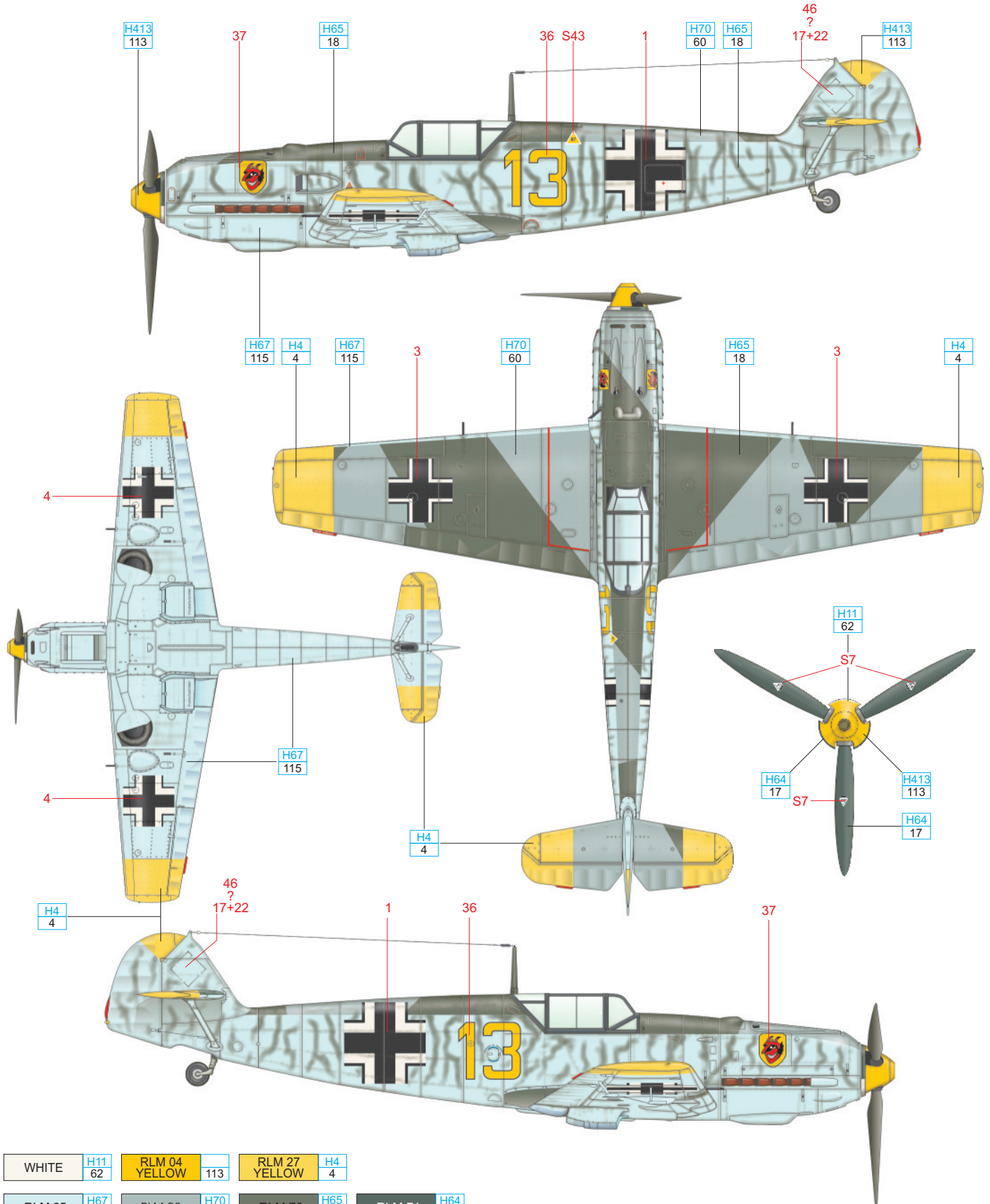
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C "Yellow 13", Lt. Josef Eberle, 9./JG 54, The Netherlands – August 1940

Very interesting camouflage schemes were rendered on the aircraft of JG 54 by the unit's ground personnel in the summer of 1940. They applied vertical to diagonal lines of RLM 71 in an attempt to darken the light blue fuselage sides. The standard scheme of 02/71/65 was applied, along with the quick identification attributes. The period scheme was applied to Yellow '13', with which, on August 12, 1940, Lt. Josef Eberle managed to cross the Channel and belly land in France despite personal injury. The wingtips and fin of Eberle's aircraft were painted RLM 27 Yellow, lighter than RLM 04 that the spinner, tactical number and background of the III./JG 54 emblem were painted. The bottom wing color RLM 65 extended marginally to the upper surface. Some sources erroneously identify this aircraft as an E-3. Despite having tempted fate once over the Channel, he was not as successful on October 9, 1940, when he lost his life in combat with RAF fighters.

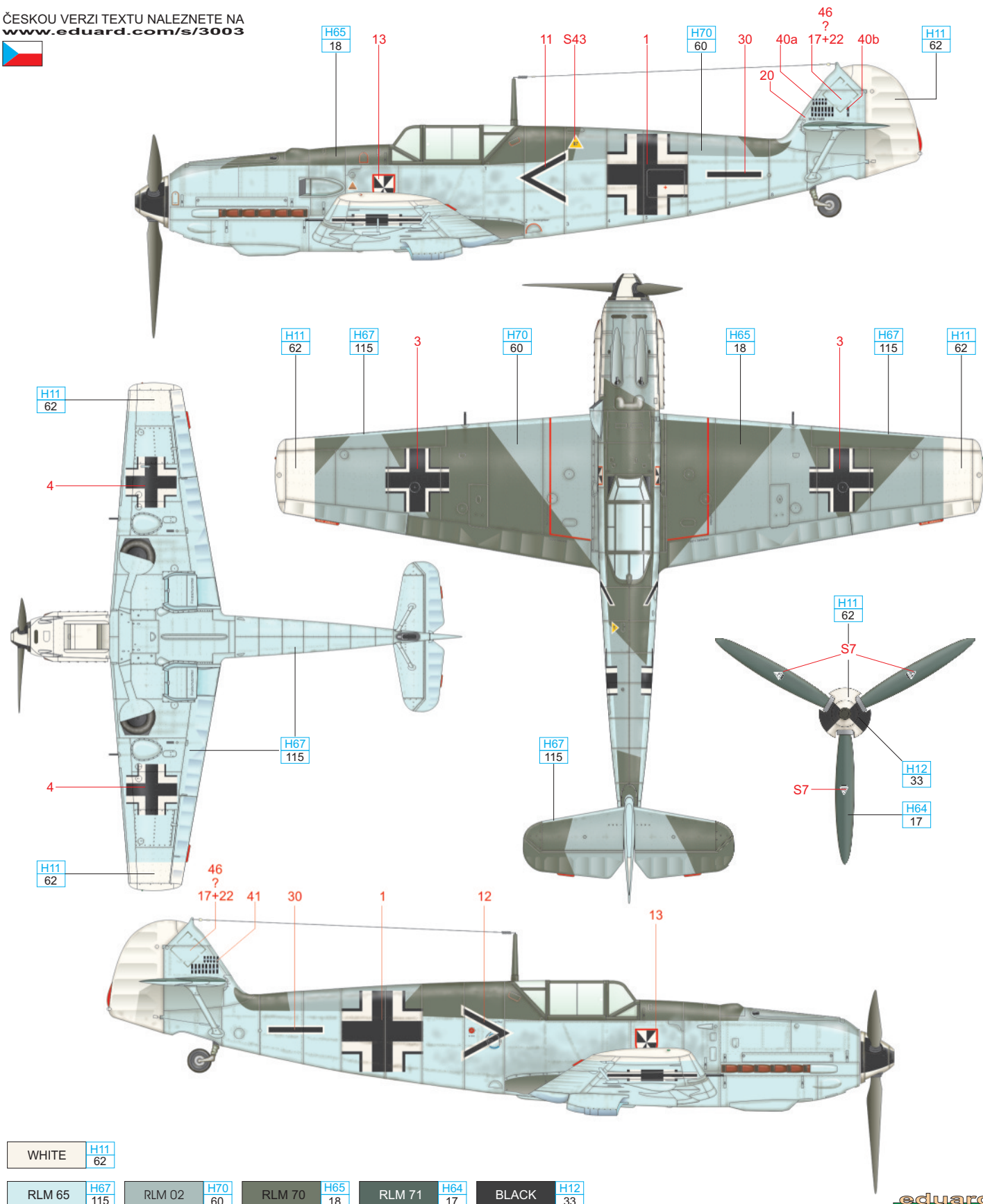
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WHITE	H11 62	RLM 04 YELLOW	H413 113	RLM 27 YELLOW	H4 4
RLM 65	H67 115	RLM 02	H70 60	RLM 70	H65 18
				RLM 71	H64 17

The illustrated Emil, W.Nr. 1480, became the subject of the fascinating event that delivered the first German ace, Oblt. Franz von Werra, into British hands. On the morning of September 5, 1940, von Werra was shot down over Kent. He managed a successful belly landing, was taken prisoner, and his plane was scrutinized by RAF experts. Von Werra attempted to escape on several occasions, and finally succeeded in Canada during transfer to a POW camp. He managed to go through the United States, which at that time was still neutral, to South America, and then back to Germany, where he rejoined the Luftwaffe. He served on both the eastern and western fronts, but had strict orders to avoid the shores of England. The Channel, nevertheless, proved fateful for him when, on October 25, 1941 as Gruppenkommandeur I./JG 53, he disappeared over it. On that day, he was flying a Bf 109F-4, and as such, von Werra became the first combat casualty flying that type. The aircraft he was shot down in a year earlier, carried a standard camouflage of 02/71/65 with white identification markings. These included the rudder and wingtips. Most recent research cannot decide if the front of the aircraft was also white. Photographs of the crash site would suggest yes, but the RAF Crash Report, which describes the appearance of the airplane in detail, makes no mention of this. The report suggests that the engine cowl was in RLM 65, was cleaner than the rest of the airframe, and may have been a replacement off another machine. We tend to lean to the second possibility, although none of them can be fully discounted. The tail surfaces carried victory marks (eight in the air and five on the ground). Positioning of them was different on both sides of the fin. Lower and side color demarcation was up high on both the fuselage and leading edge of the wings, where the RLM65 shade extended to the upper surfaces.

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Bf 109E-4 STENCIL DATA

