

# Bf 109K-4

# eduard

1/48 Scale Plastic Model Kit

**ProfiPACK**  
edition



item No. 82166

**No other aircraft is so intimately connected with rise and fall of the German Luftwaffe during the WWII like the Messerschmitt Bf 109. It became the true workhorse of the war...**

The evolution of this aircraft outlived the era in which it was conceptualized. The Bf 109s bore the brunt of Luftwaffe duties from the opening battles of Nazi Germany through to her final downfall.

#### As progressive as possible

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 design bureau of the last-mentioned company was led by its technical director Willy Messerschmitt, who was riding a wave of popularity based on the success of his liaison aircraft, the Bf 108. Messerschmitt's 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, full of revolutionary features such as low wing design, retractable landing gear, wing with a thin airfoil, wing slats, landing flaps, weapons firing through the propeller hub, and so on. Even the enclosed cockpit and the method of the airframe design 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 DB 601. This engine, together with its development DB 605 variant, is umbilically connected to the success of the Bf 109. These two-row, twelve-cylinder inverted V engines powered several tenths of thousands of 109s in over 25 versions and variants.

#### From Spanish War to the defence of the Reich

The first combat use of Bf 109 occurred during Spanish Civil War, where three developmental Bf 109s were deployed in December 1936. The main reason of revealing the modern fighter to the world was quite down-to-earth: To validate the aircraft's abilities in modern aerial combat. Shortly thereafter, production aircraft in the form of the Bf 109B-1 began to reach 2.J/88, the Legion Condor. The desire of Germany to demonstrate its 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 some 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 defence 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 emerged: The inability to carry drop tanks that would have enabled the type to effectively escort bombers to England. This was one of the factors responsible for the defeat of the Luftwaffe in the Battle of Britain. 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.

#### The kit: Bf 109K-4

Based on the conclusions of a meeting at the RLM on August 9, 1943, preparatory work was underway on the design of the Bf 109K-1 and K-3, equipped with a pressurized cockpit, and the Bf 109K-2, a standard fighter aircraft, powered by the DB 605D or DB 605AS engine, armed with a MK 108 engine mounted cannon of 30 mm caliber and two 13 mm MG 131 machine guns.

After another series of meetings, there was a reassessment of priorities in the development and production of new aircraft. The final concept of the new type was approved in June 1944. The Bf 109K-4 was to be powered by a 1,775 hp DB 605D engine, armed with a 30 mm MK 108 cannon and two 13 mm MG 131 machine guns. A number of components associated with the engine installation were carried over from the Bf 109G-10 out of the Regensburg factory, including the large Fö 987 oil cooler and the engine cowling.

The use of non-deficit (Ersatz) materials was still considered, but the original idea of an all-wooden wing was abandoned, and the wing remained all-metal. Only the tail and some other parts were made of wood, some of the longerons of the fuselage were made of steel. A significant change in the wing was the strengthening of the landing gear, the introduction of mechanical landing gear position indicators on the upper surface of the wing and above all the retractable outboard landing gear covers. These covers were closed by the wheel exerting pressure on a mechanical lever when retracted.

The tires were sized at 690 x 190 mm, which necessitated the creation of large bulges above the landing gear well, the same as the WNF/Diana production Bf 109G-10/U4 and some Erla production aircraft. The right wing also housed oxygen cylinders, while the left wing contained space for the GM-1 pressure bottles that some machines were equipped with. However, the standard equipment was the MW 50 system, the placement of which in the fuselage was adjusted so that the container no longer extended into the rear wall of the cockpit and did not require a protruding cover, as with the Bf 109 G-14 and G-10 versions. The radio equipment was identical to the G-10, but the wire antenna in most aircraft did not have a mast on the cockpit canopy or behind it but was led directly into the fuselage on top of the second fuselage segment.

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. SYMBOL \* INSTRUKTION SINNBILDEN \* SYMBOLES \* 記号の説明

OPTIONAL  
VOLBABEND  
OHNOUTSAND  
BROUSITOPEN HOLE  
VYVRTAT OTVORSYMETRICAL ASSEMBLY  
SYMETRICKÁ MONTÁŽREMOVE  
ODRÍZNOUTREVERSE SIDE  
OTOČITAPPLY EDUARD MASK  
AND PAINT  
POUŽIT EDUARD MASK  
NABARVIT**PLEASE CHECK THE LATEST VERSION OF THE INSTRUCTIONS ON [www.eduard.com](http://www.eduard.com)**

PARTS



DÍLY



TEILE



PIÈCES

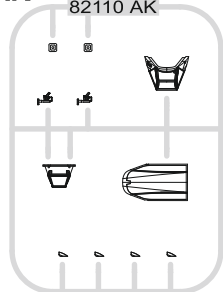


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## PLASTIC PARTS

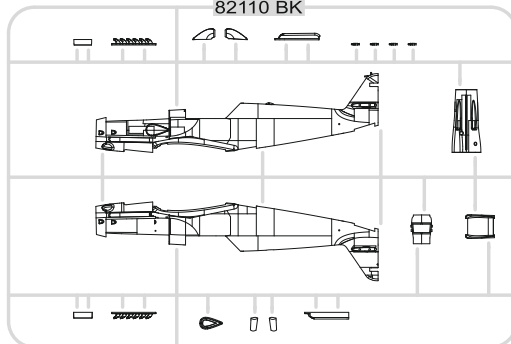
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82110 AK



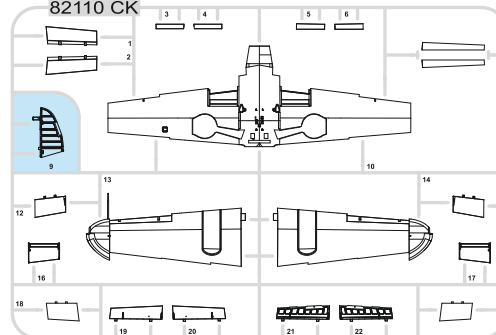
BK&gt;

82110 BK



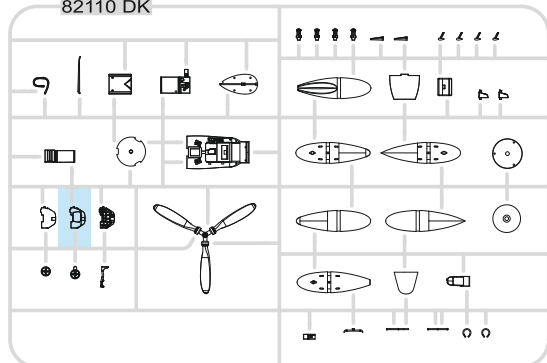
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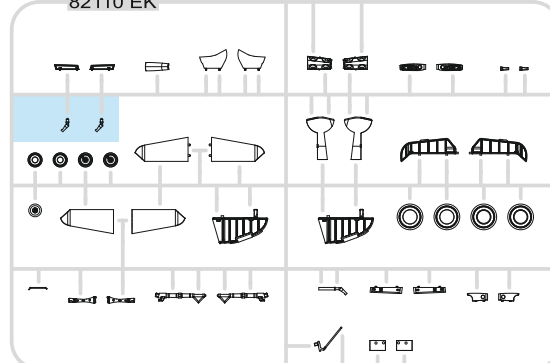
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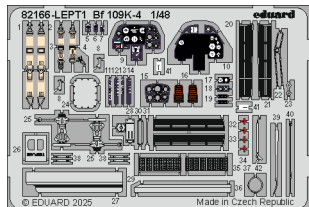
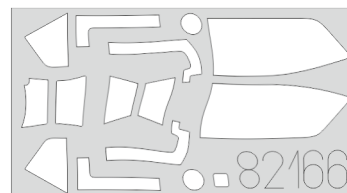


EK&gt;

82110 EK



## PE - PHOTO ETCHED DETAIL PARTS

eduard  
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



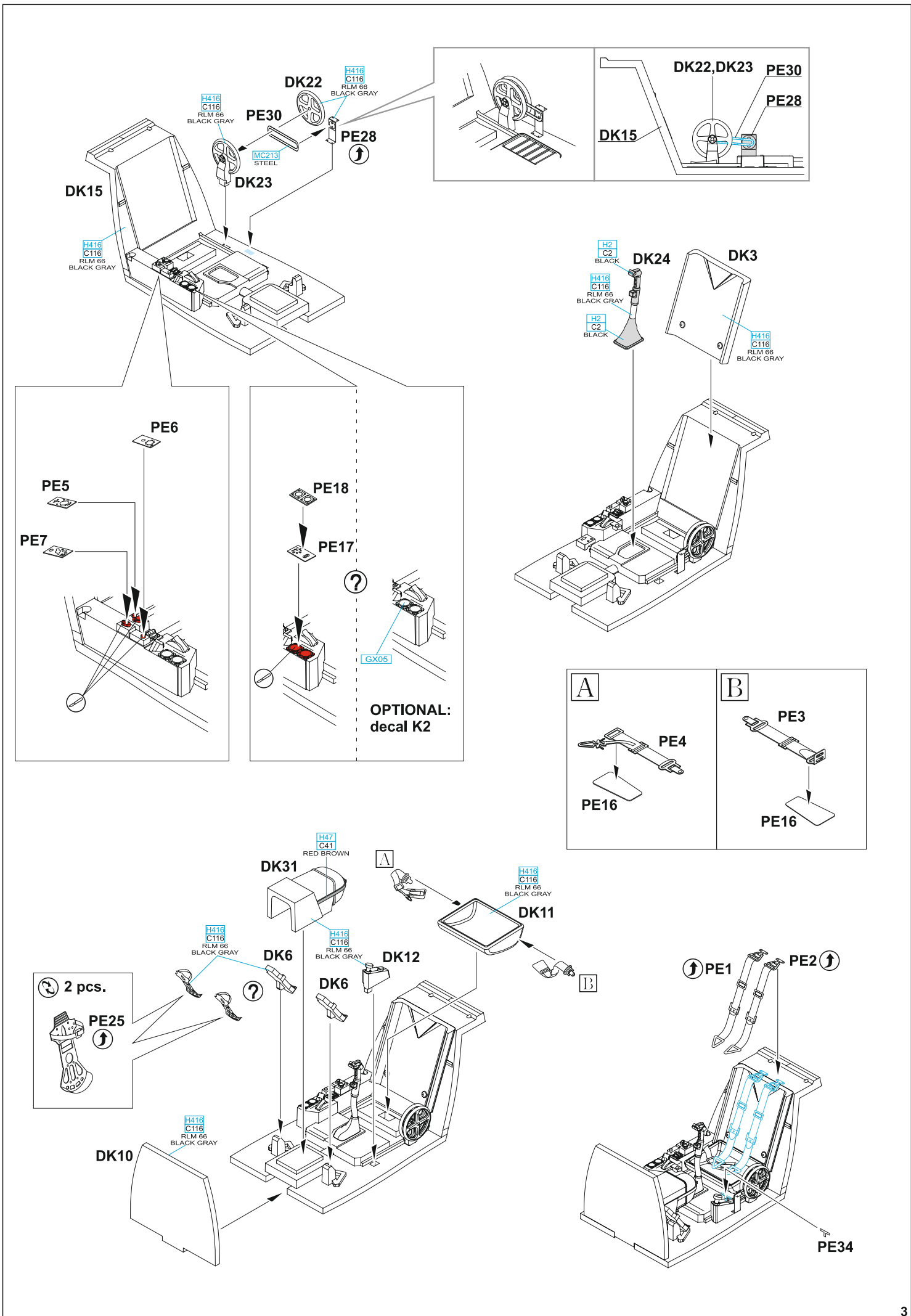
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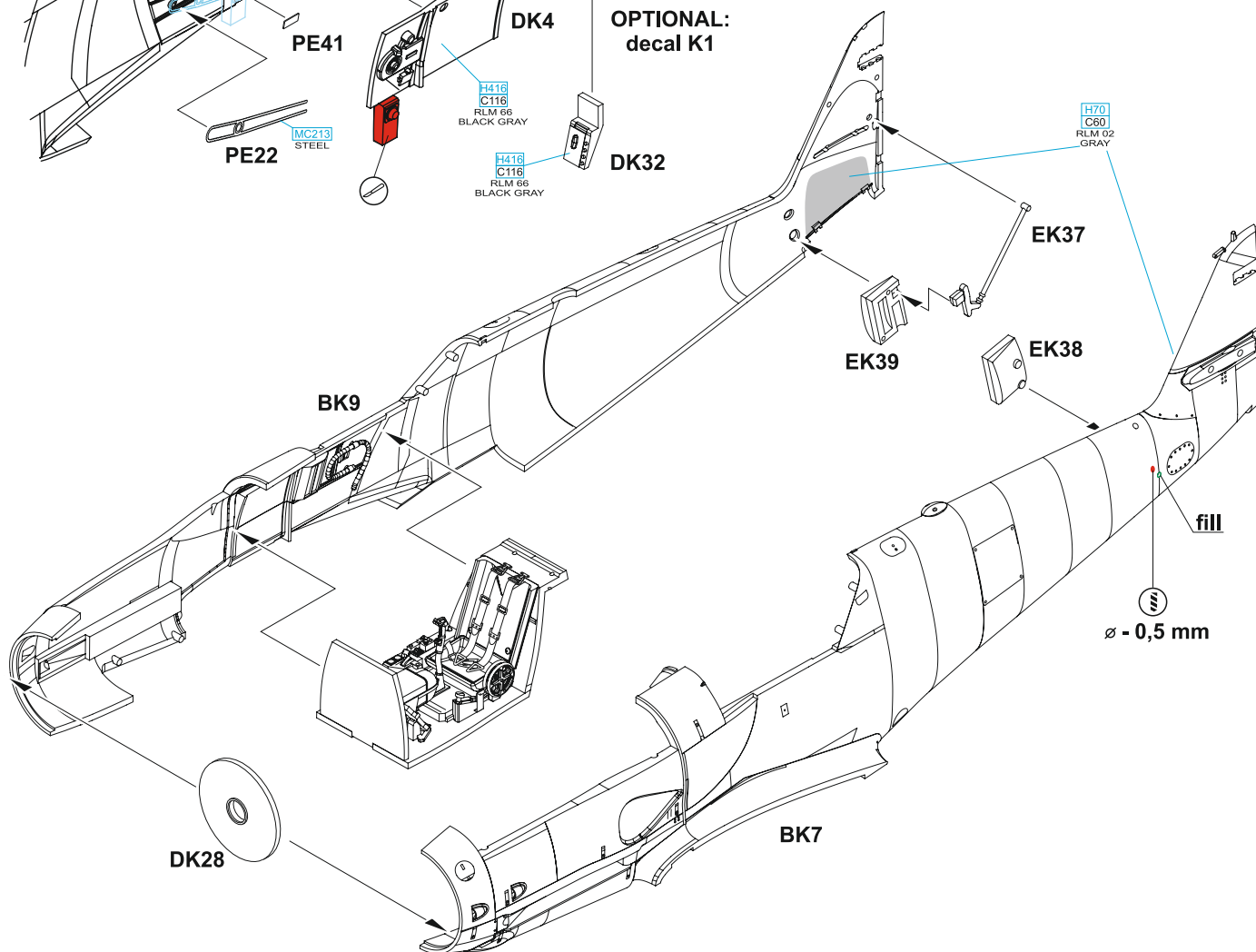
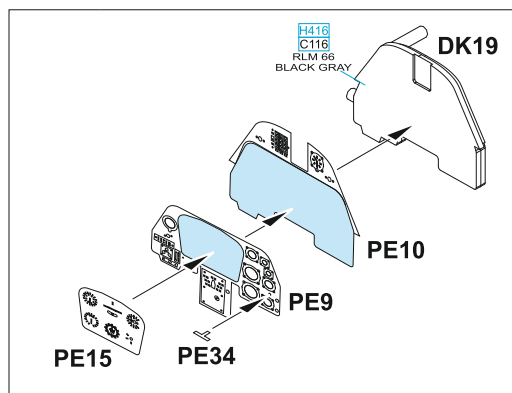
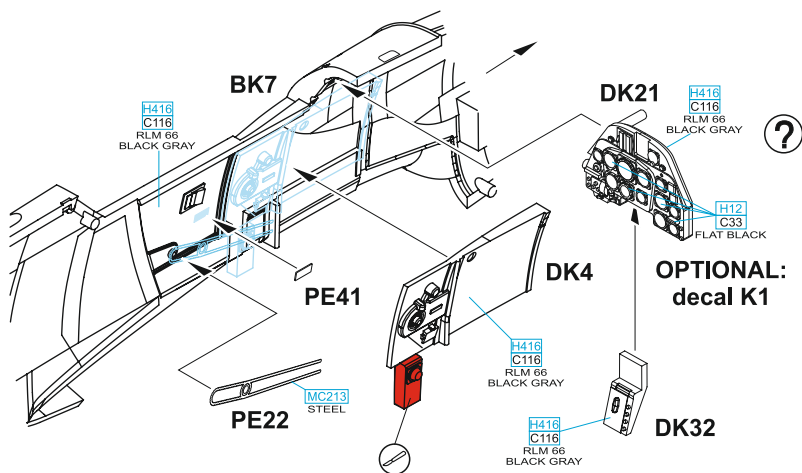
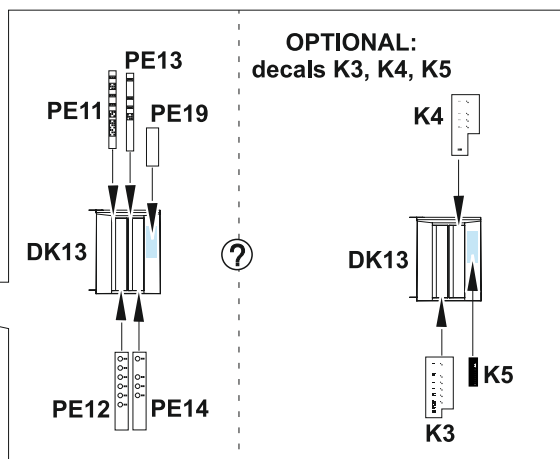
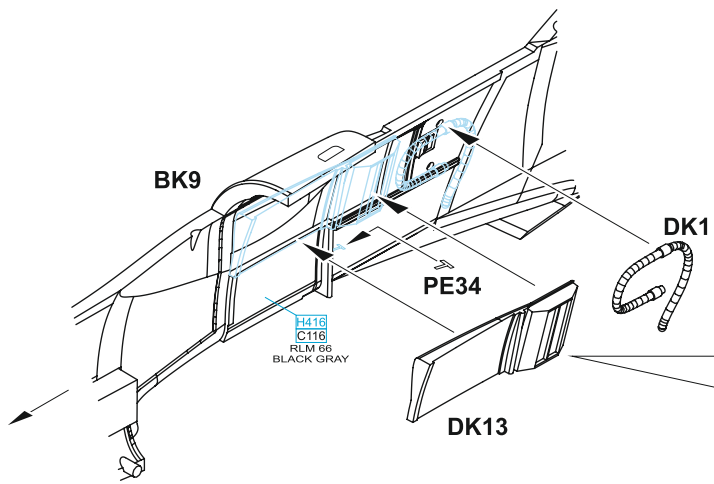


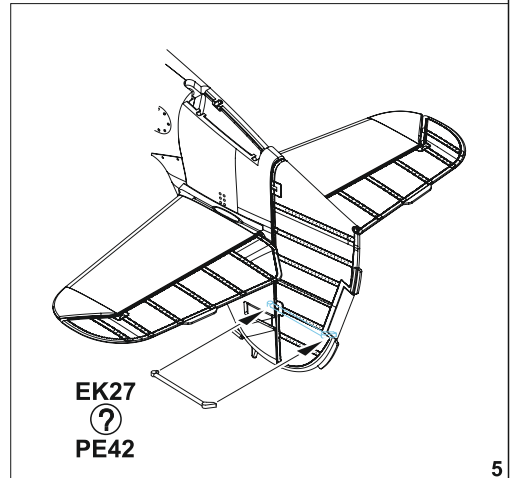
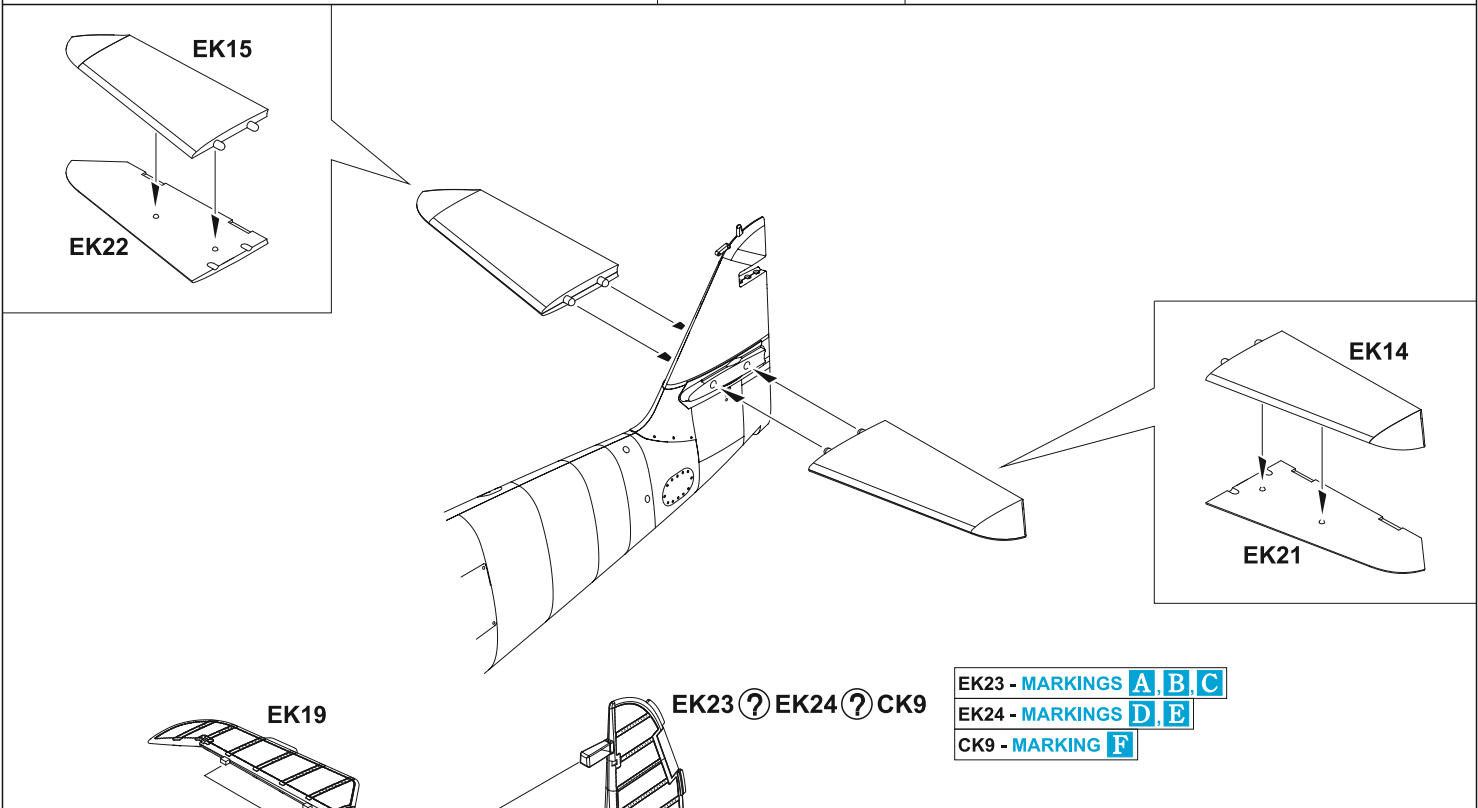
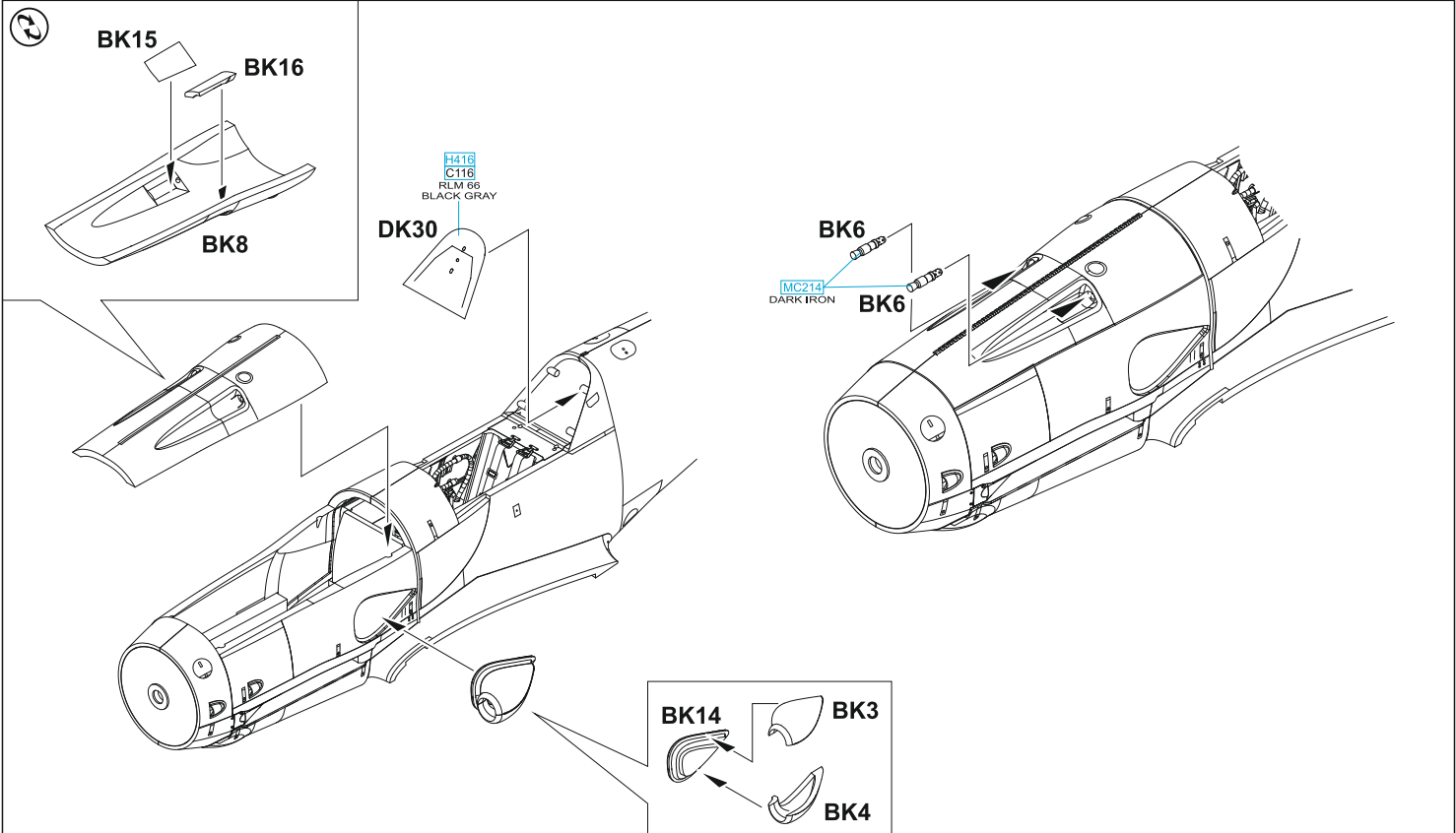
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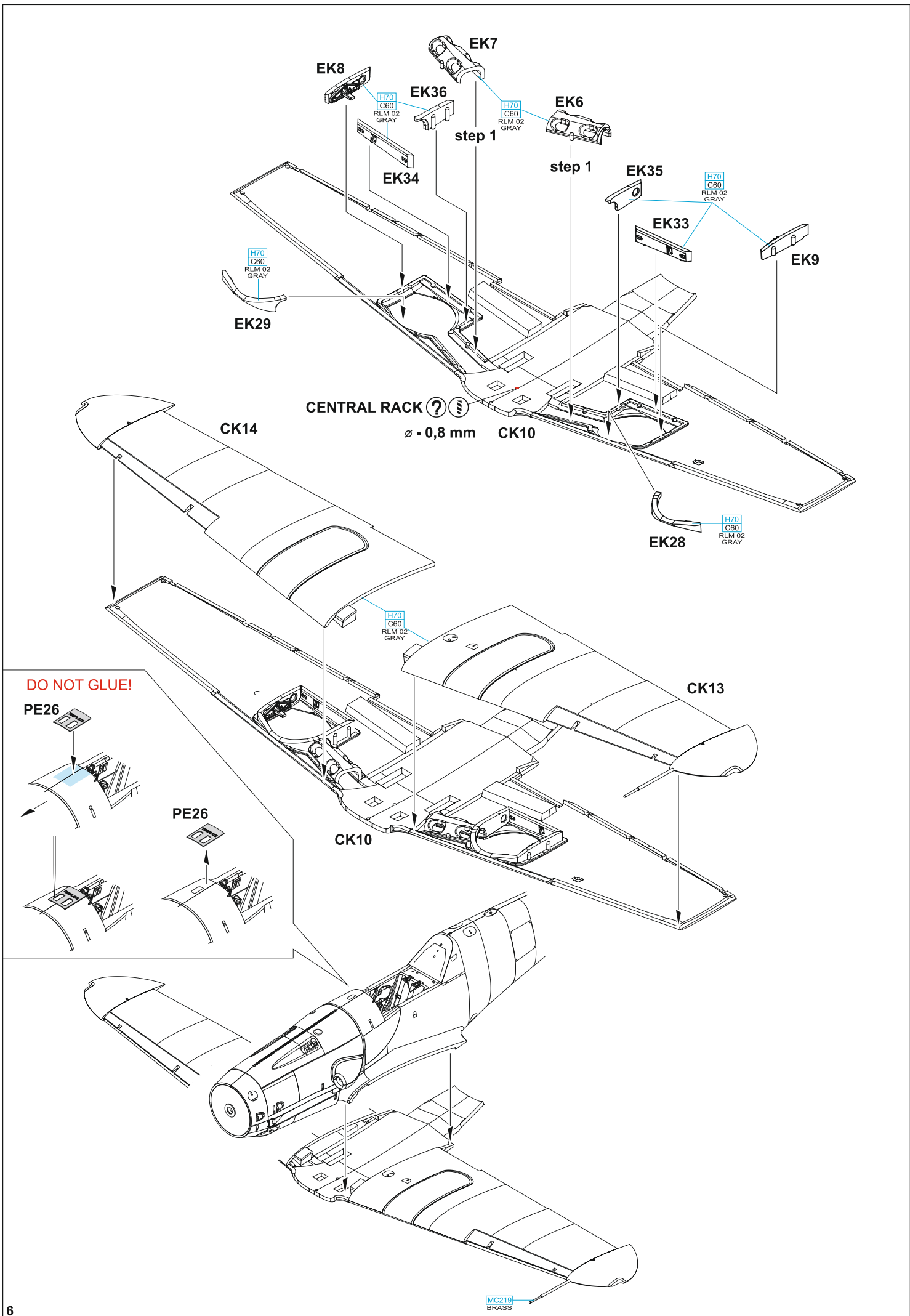
GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H2	C2	BLACK
H11	C62	FLAT WHITE
H12	C33	FLAT BLACK
H47	C41	RED BROWN
H65	C18	RLM70 BLACK GREEN
H68	C36	RLM74 DARK GRAY
H69	C37	RLM75 GRAY
H70	C60	RLM02 GRAY
H74	C368	SKY
H77	C137	TIRE BLACK
H90	C47	CLEAR RED
H94	C138	CLEAR GREEN
H319	C319	LIGHT GREEN
H413	C113	RLM04 YELLOW

GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H414	C114	RLM23 RED
H416	C116	RLM66 BLACK GRAY
H417	C117	RLM76 LIGHT BLUE
H421	C121	RLM81 BROWN VIOLET
H422	C122	RLM82 LIGHT GREEN
H423	C123	DARK GREEN
Mr.METAL COLOR		
MC213		STEEL
MC214		DARK IRON
MC219		BRASS
Mr.COLOR SUPER METALLIC		
SM201		SUPER CHROME
Mr.COLOR GX		
GX05		SUSIE BLUE









**DO NOT GLUE!**

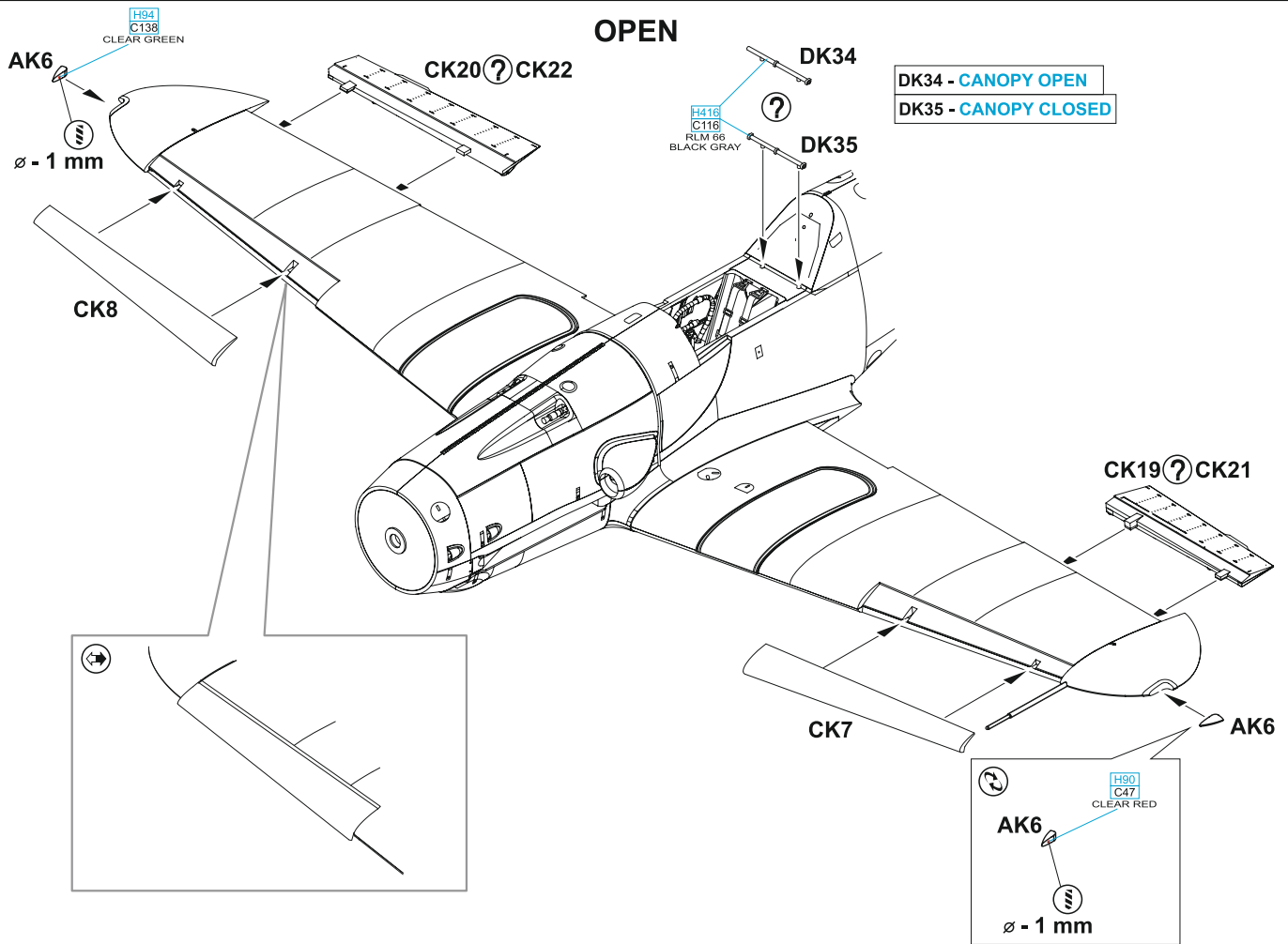
PE26

PE26

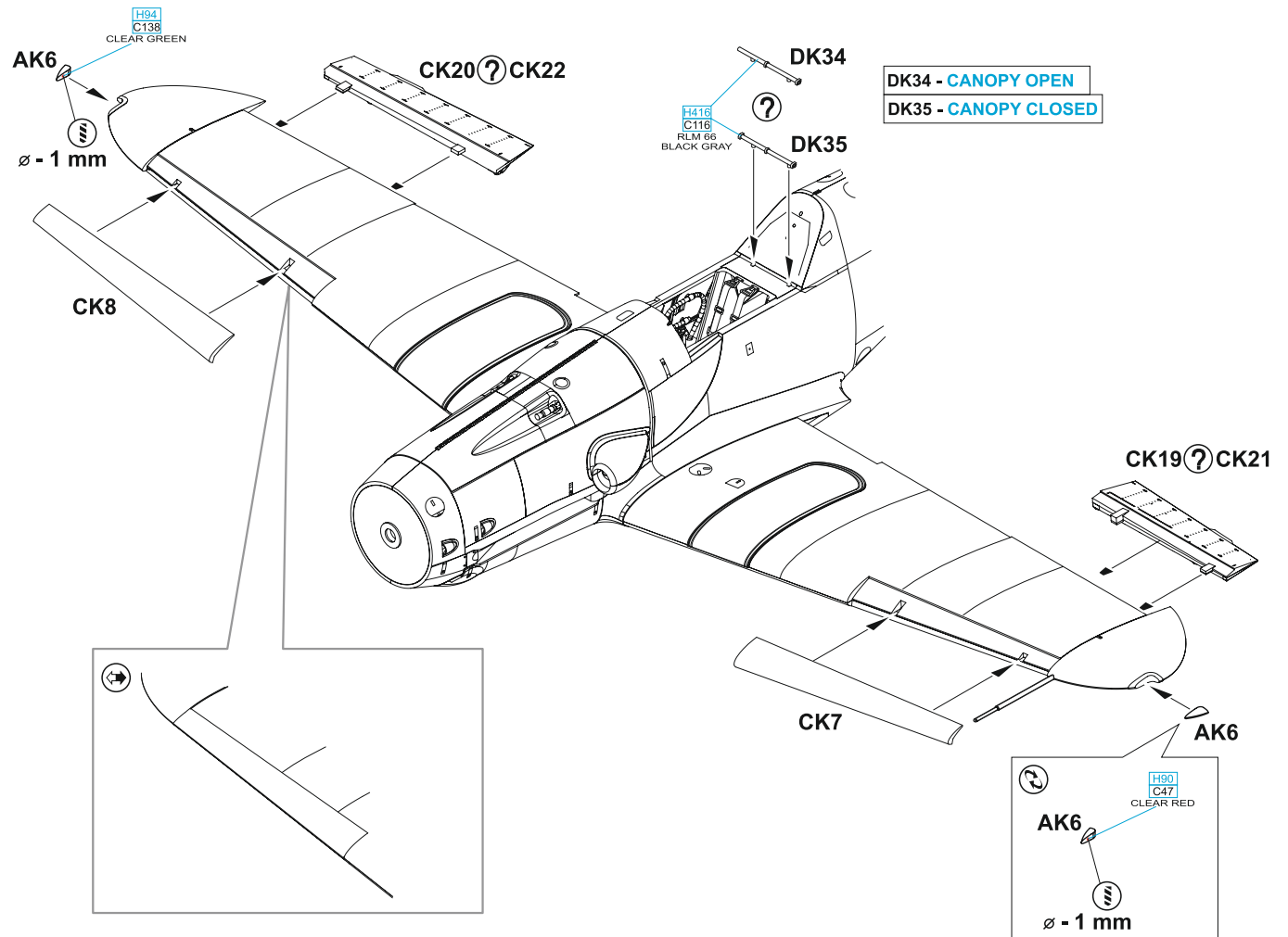
**CENTRAL RACK** ?  $\varnothing - 0,8 \text{ mm}$

MC219  
BRASS

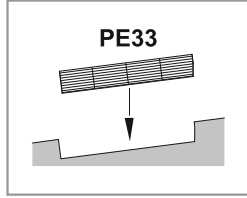
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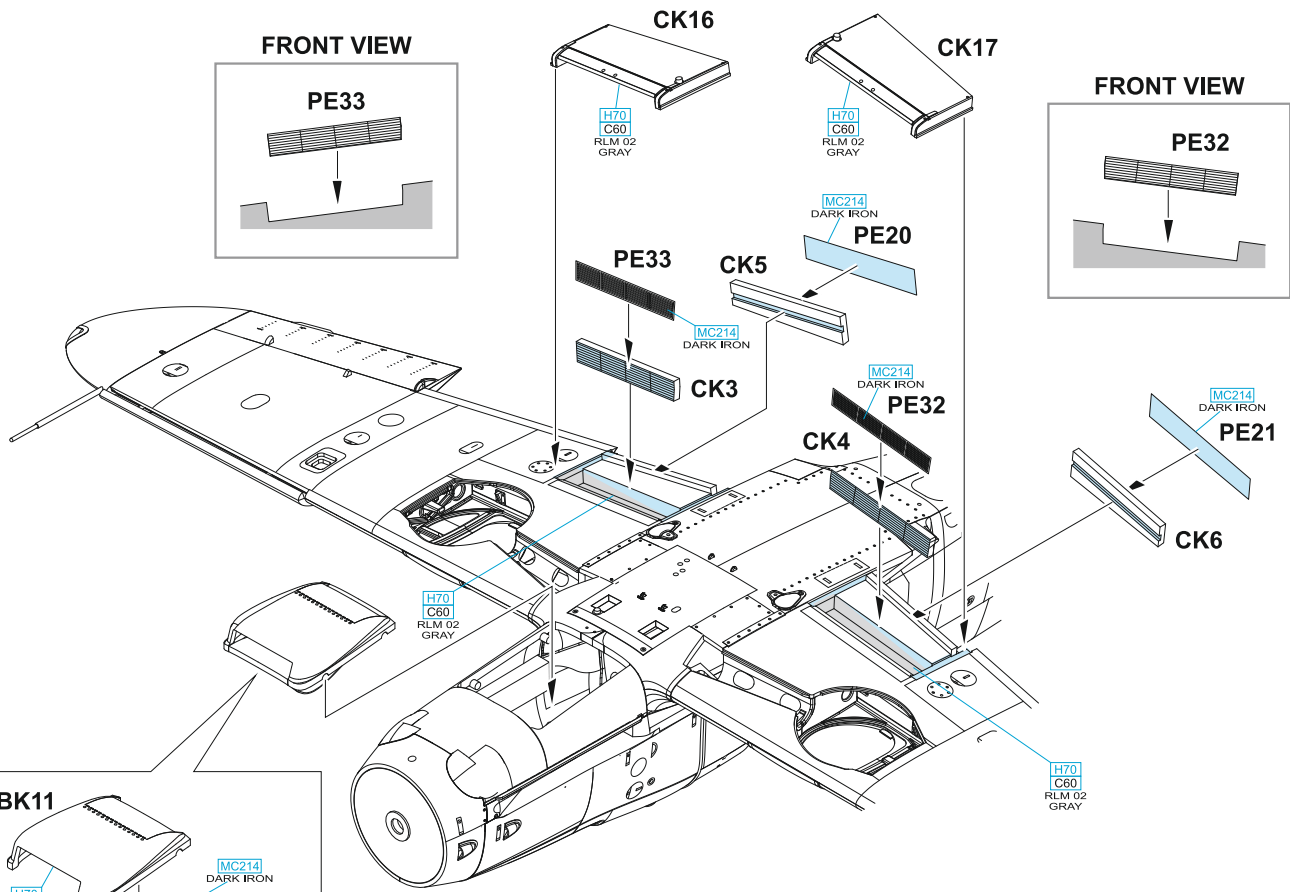
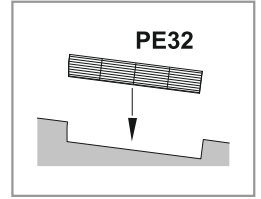
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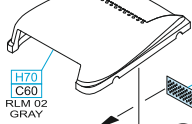
FRONT VIEW



FRONT VIEW



BK11



MC214  
DARK IRON

H70  
C60  
RLM 02  
GRAY

BK12

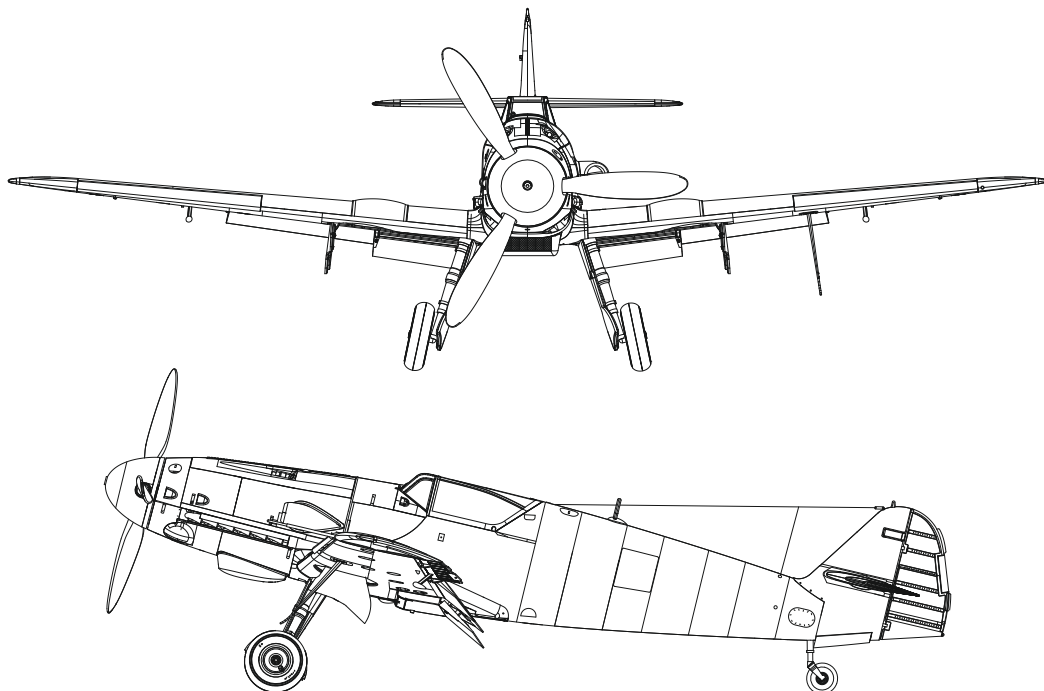


BK1

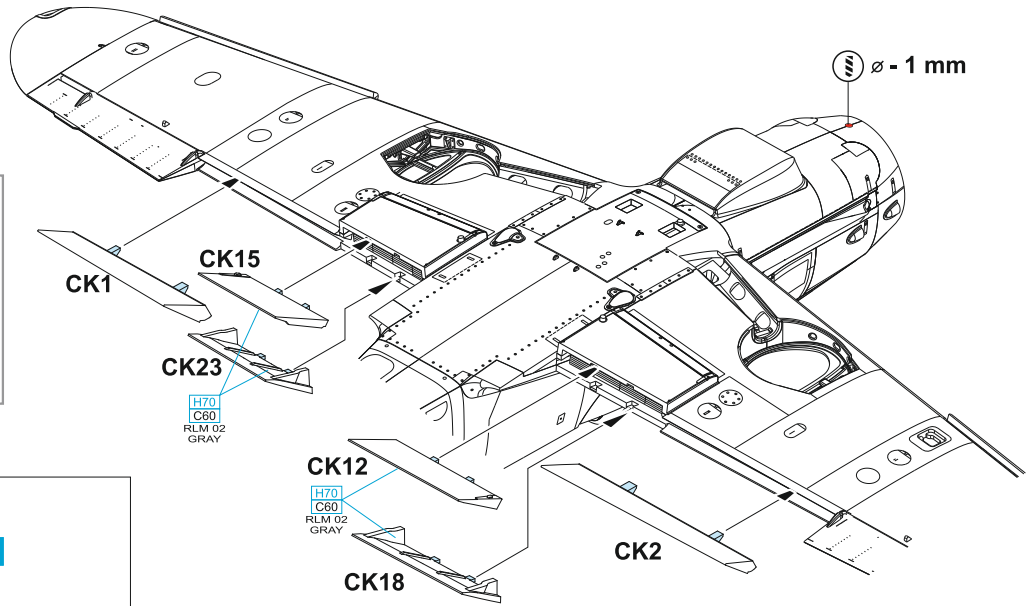
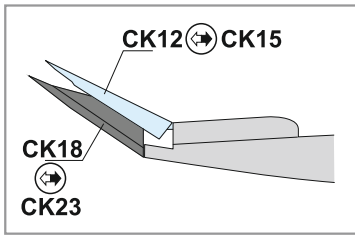
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MC214  
DARK IRON

H70  
C60  
RLM 02  
GRAY

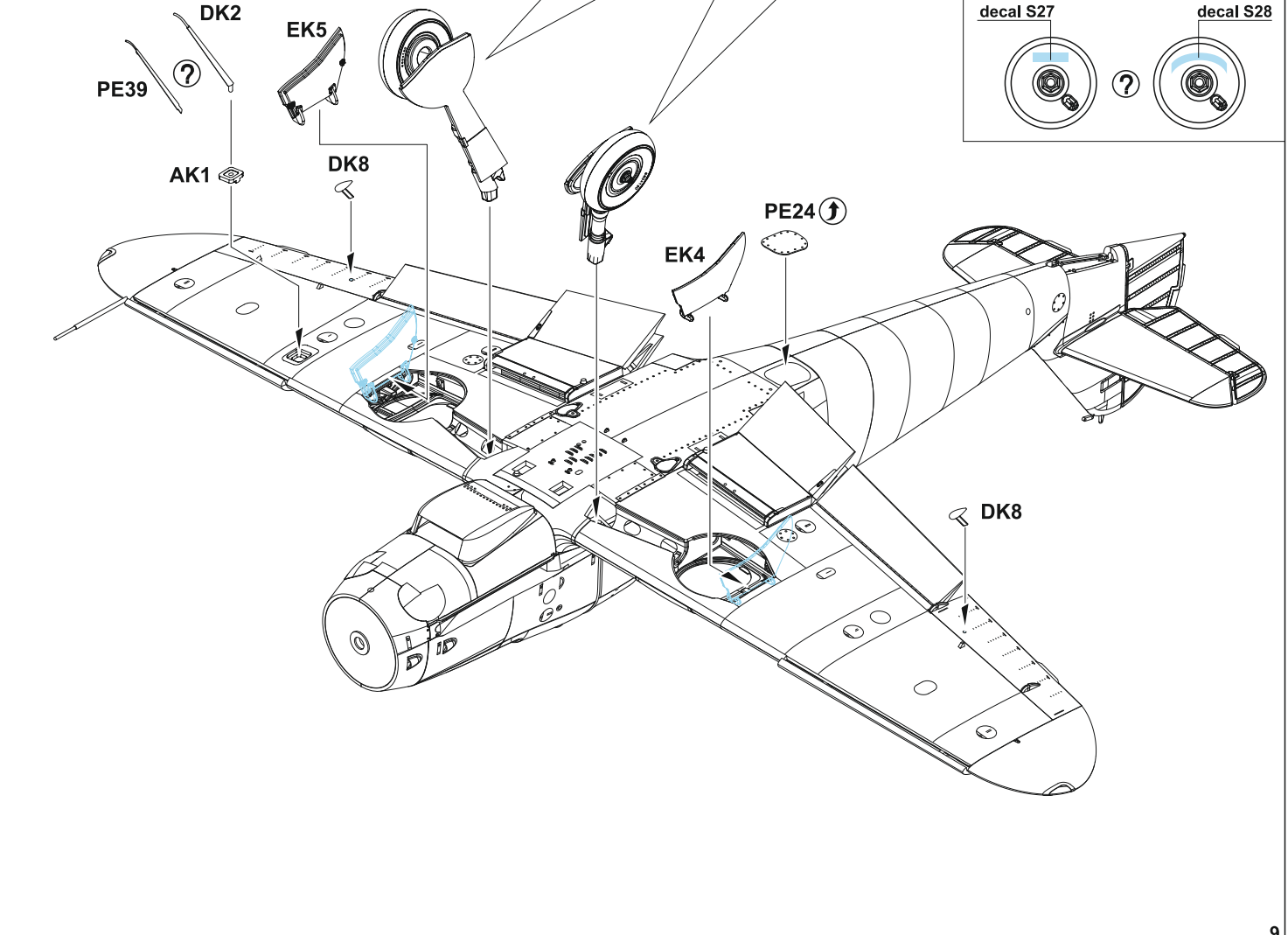
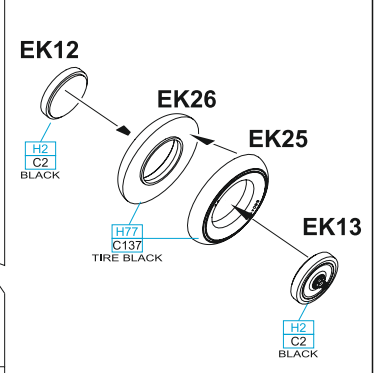
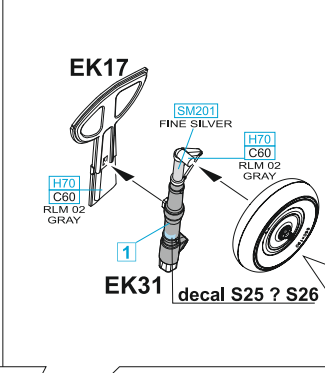
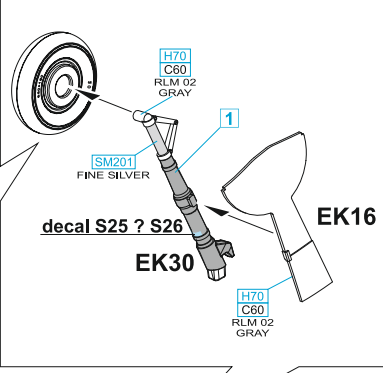
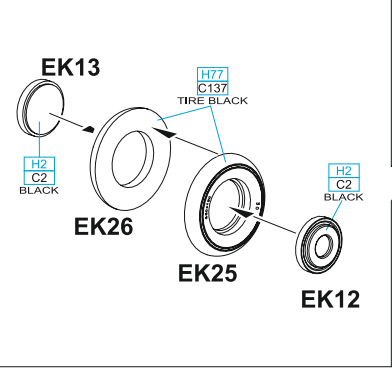
BK10

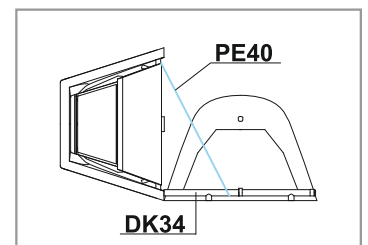
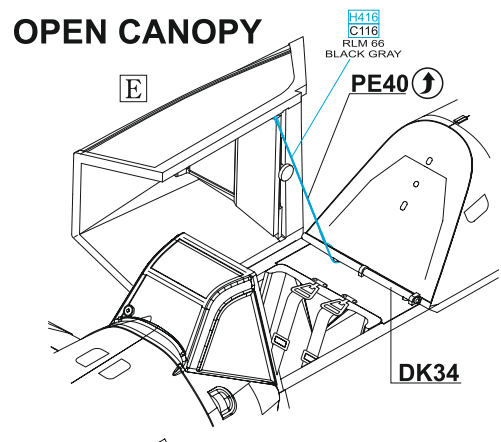
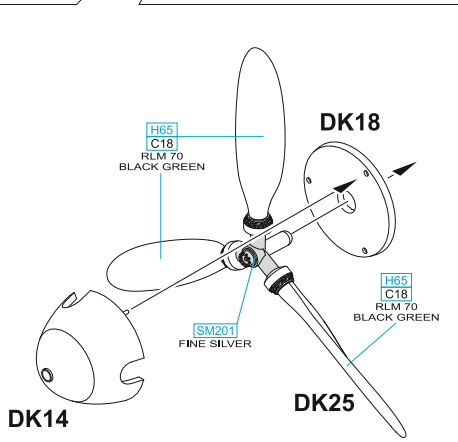
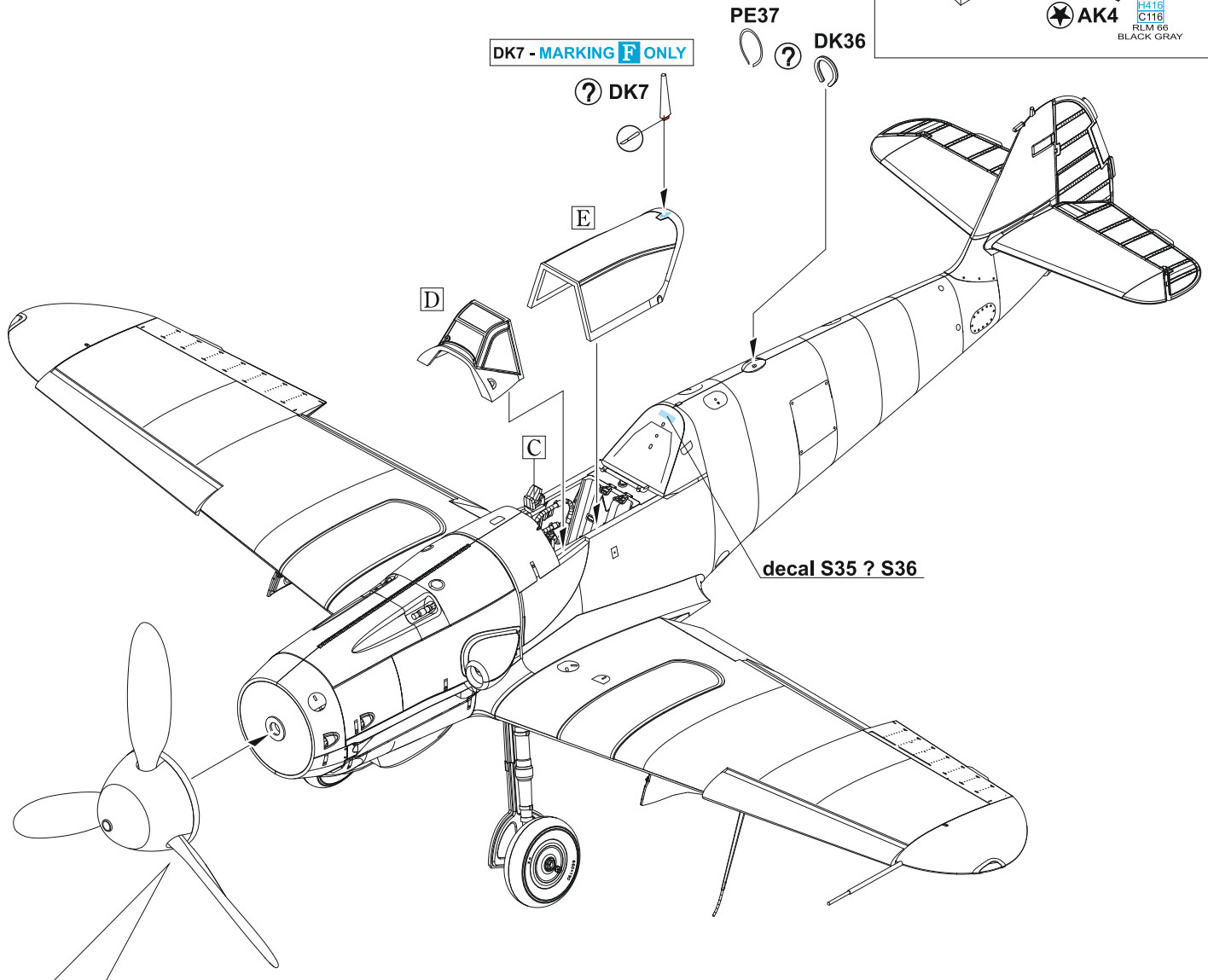
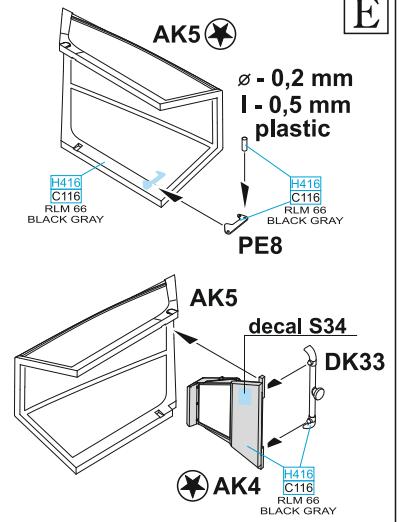
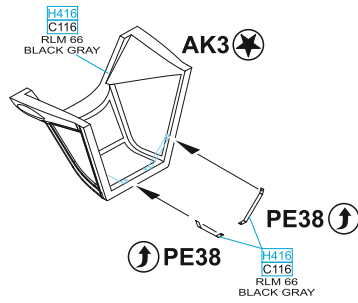
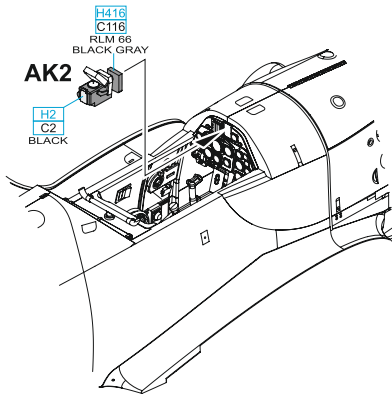


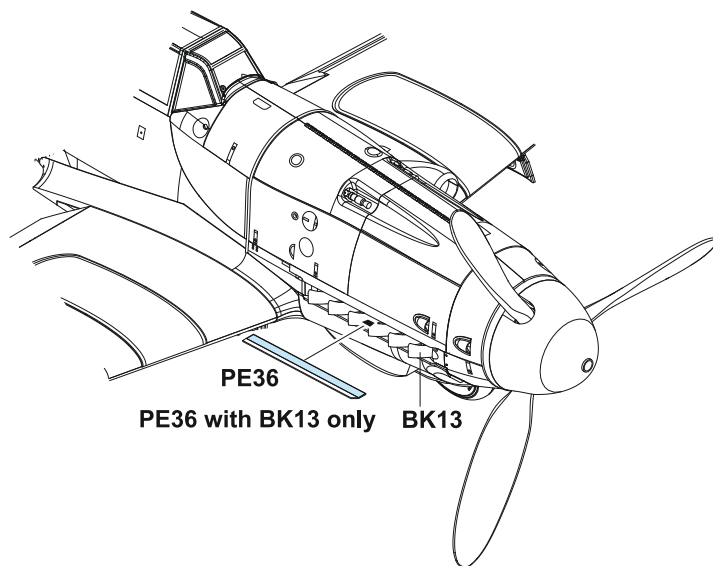
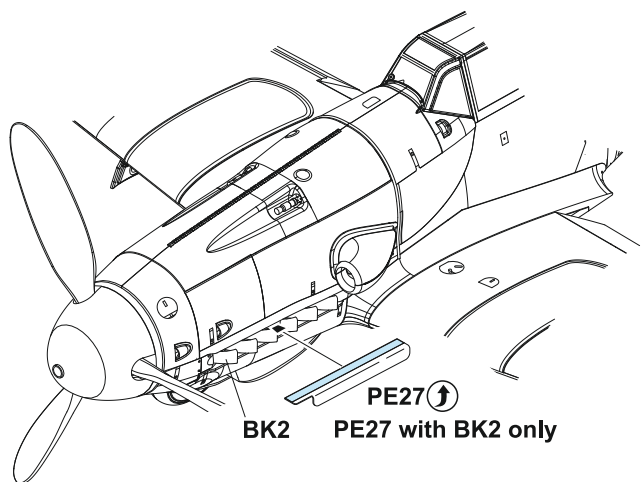
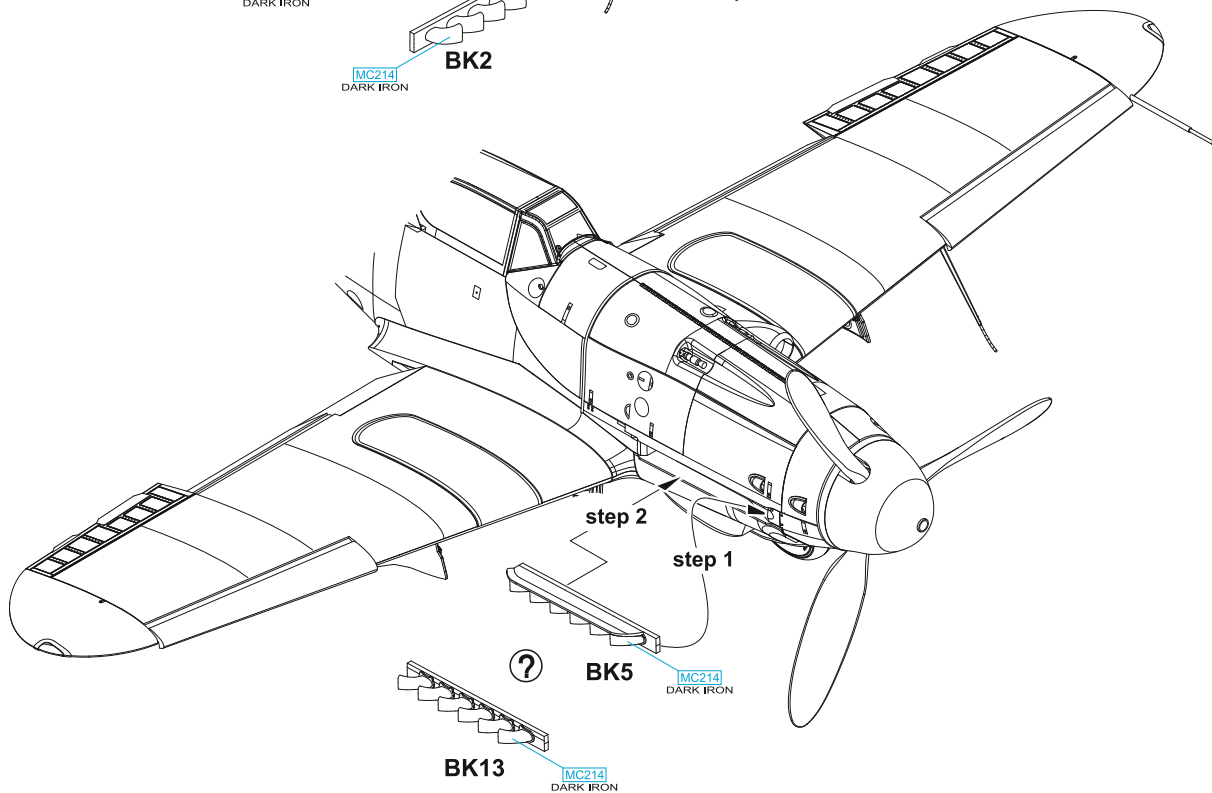
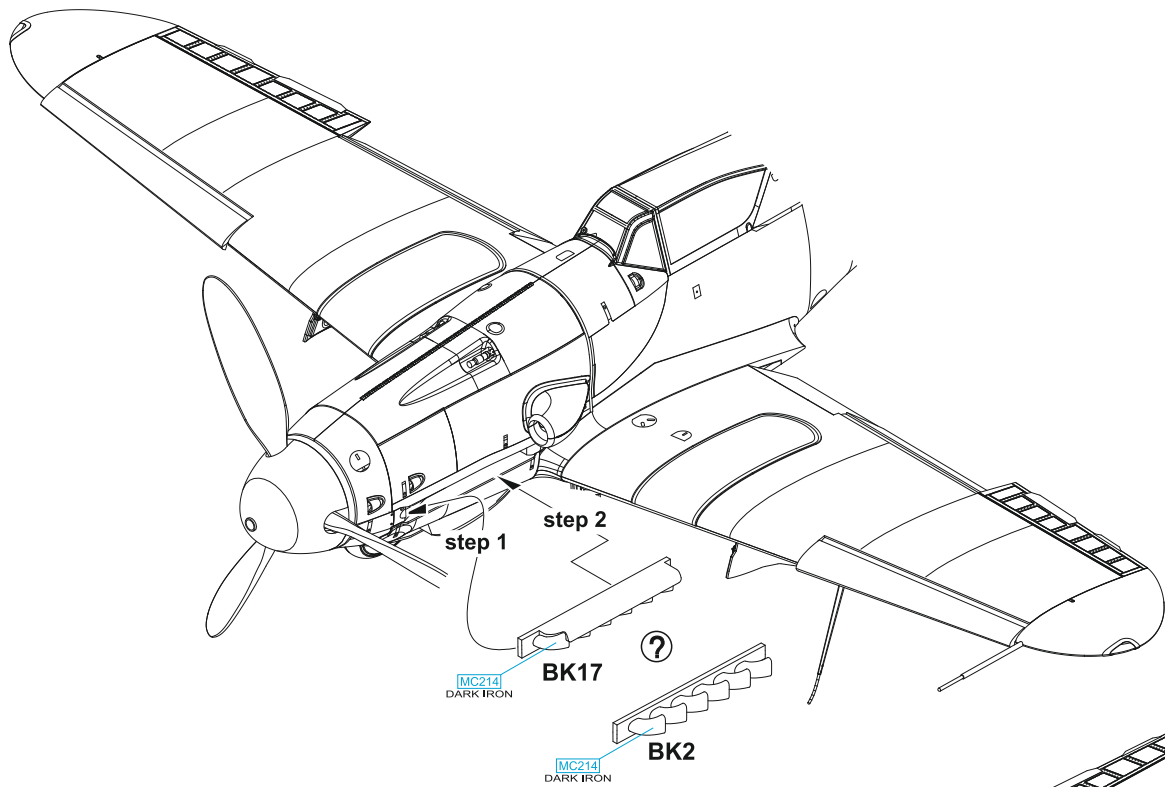
**CORRECT POSITION OF RADIATOR FLAPS**

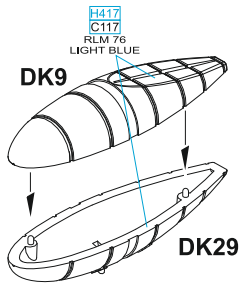
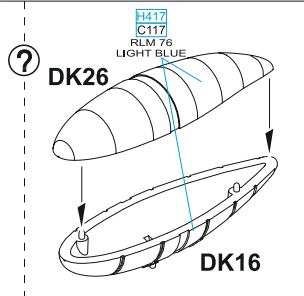
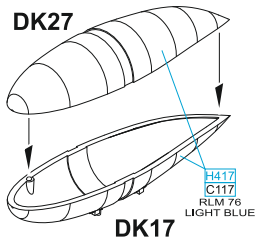


- 1** =
- H414**  
**C114**  
RLM 23  
RED - MARKINGS **A; F**
  - H70**  
**C60**  
RLM 02  
GRAY - MARKINGS **B; C; D**
  - H416**  
**C116**  
RLM 66  
BLACK GRAY - MARKING **E**

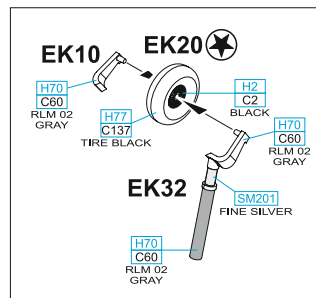
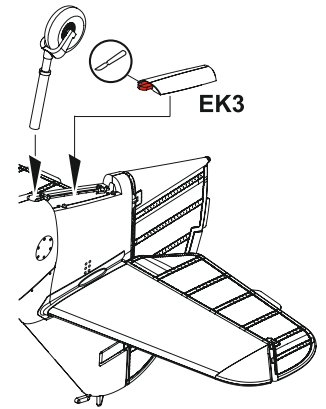




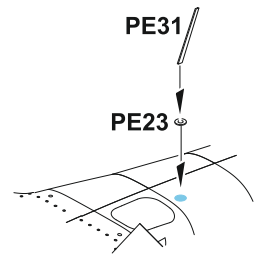
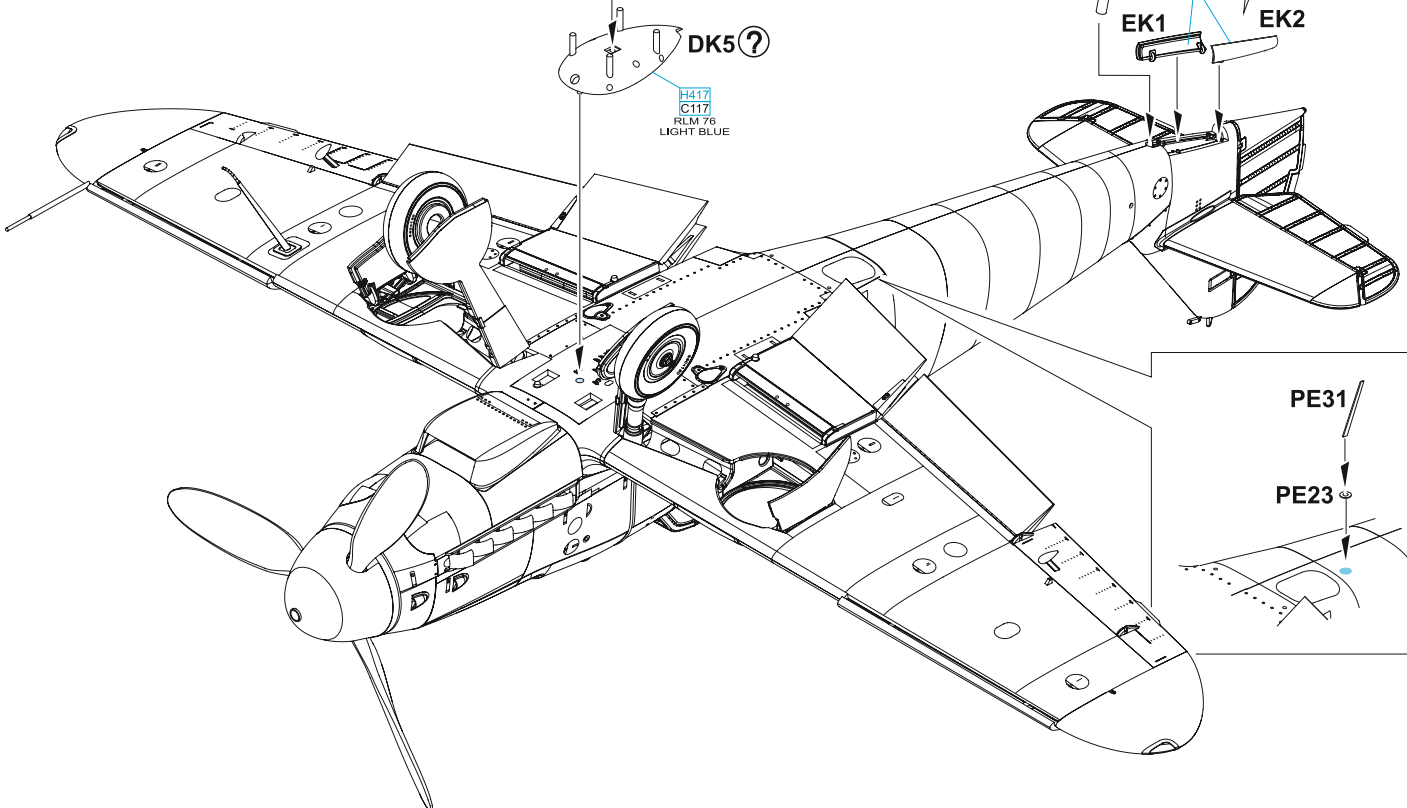
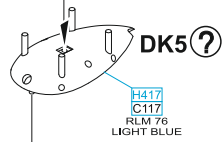
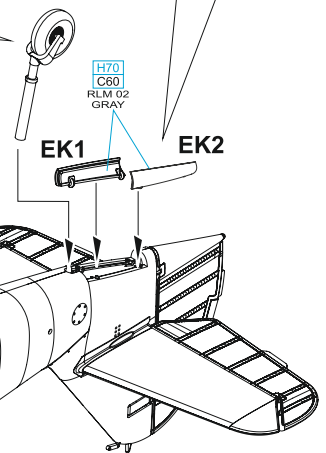


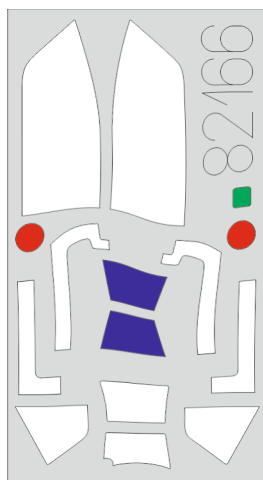


**CLOSED WHEEL BAY**

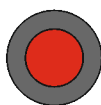


**OPEN WHEEL BAY**

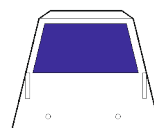




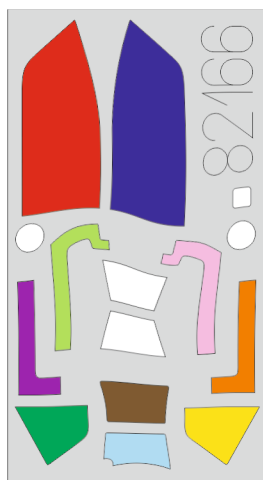
EK20



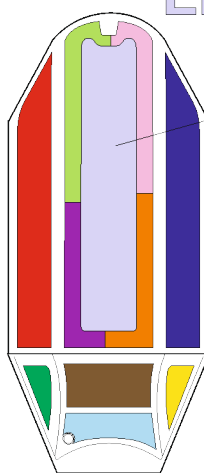
AK4



AK1



LIQUID MASK

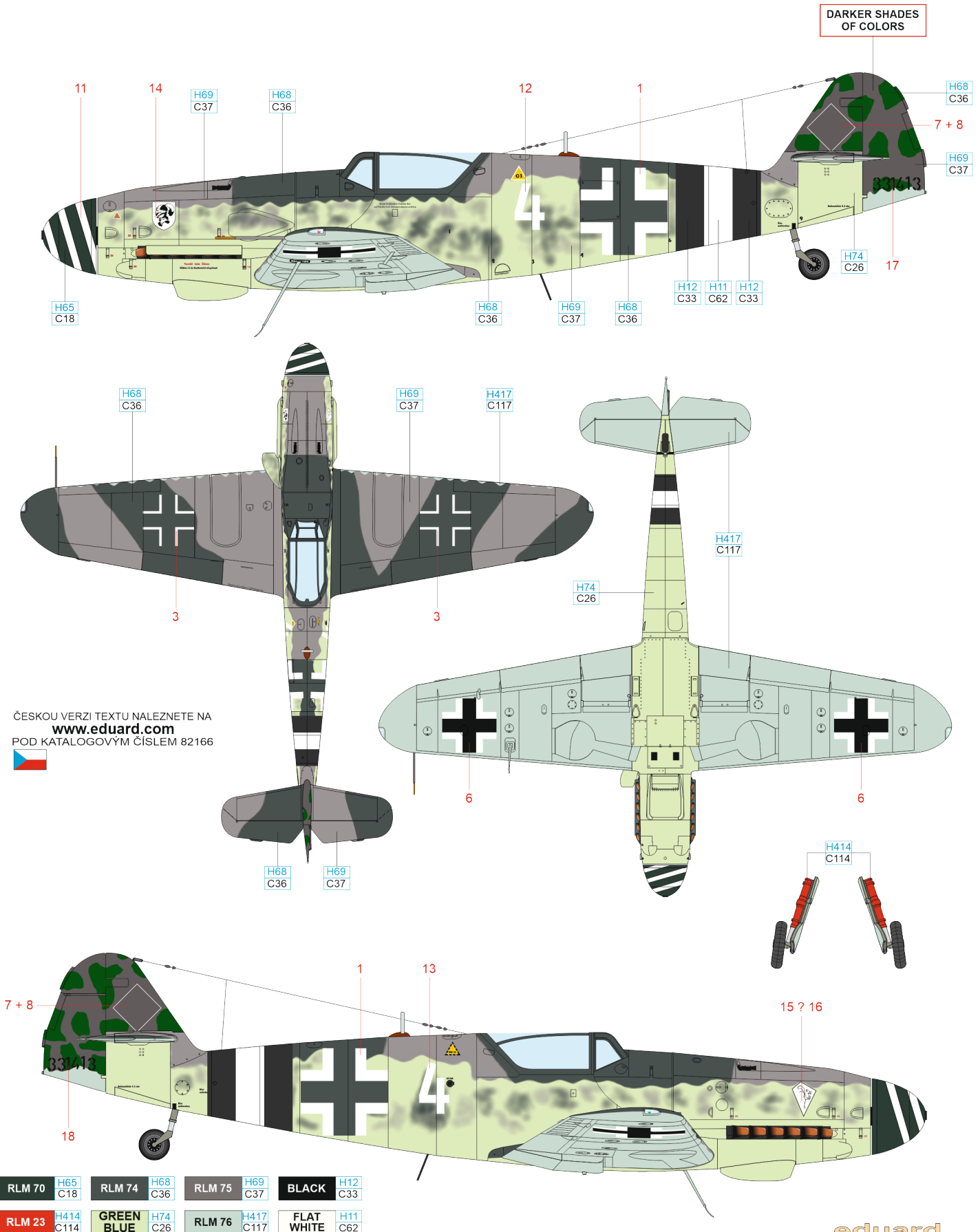


AK5

AK3

# A WNr. 331413, 1./JG 4, Berlin-Schönefeld, Germany, February-March 1945

The fighter unit 1./JG 4 was formed in Mizil (Romania) from 1./JG 77 to defend the oil fields and platforms near Ploiești. After heavy fighting with the 15<sup>th</sup> USAAF and a retreat from Italy, 1./JG 4 was reorganized in Kassel during the summer of 1944. It then engaged in combat with escorting P-51s and P-47s from the 8<sup>th</sup> AF and 9<sup>th</sup> AF USAAF. From November 1944 to January 1945, 1./JG 4 was stationed at the Darmstadt-Griesheim airfield, from where it participated in Operation Bodenplatte, suffering heavy pilot losses. From February 1945, it was based at Berlin-Schönefeld airfield, where it was dissolved on March 19, 1945. The last known commander of 1./JG 4 was Oblt. Alfred Neumayer, who, after being injured on January 1, 1945, underwent recovery but, despite his combat experience, was assigned to the infantry after recuperation. Following infantry training in Bohemia, he has been missing since April 1945. White 4 features a camouflage scheme in RLM 74/75/76 colors and displays production series markings of 331xxx. The white spiral has black borders applied by mechanics of JG 4. On the left side of the nose was the JG 4 insignia, and on the right side, a depiction of a rooster.



ČESKOU VERZI TEXTU NALEZNETE NA  
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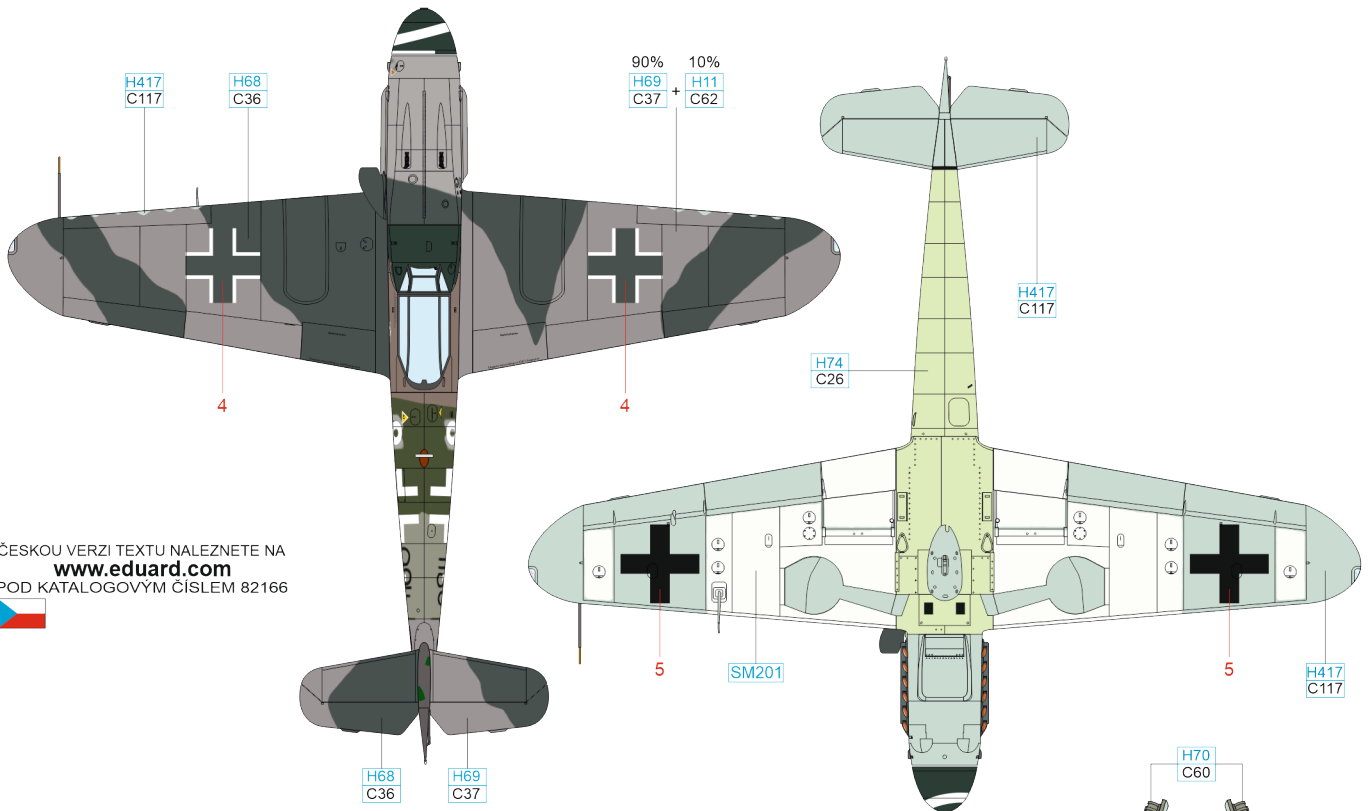
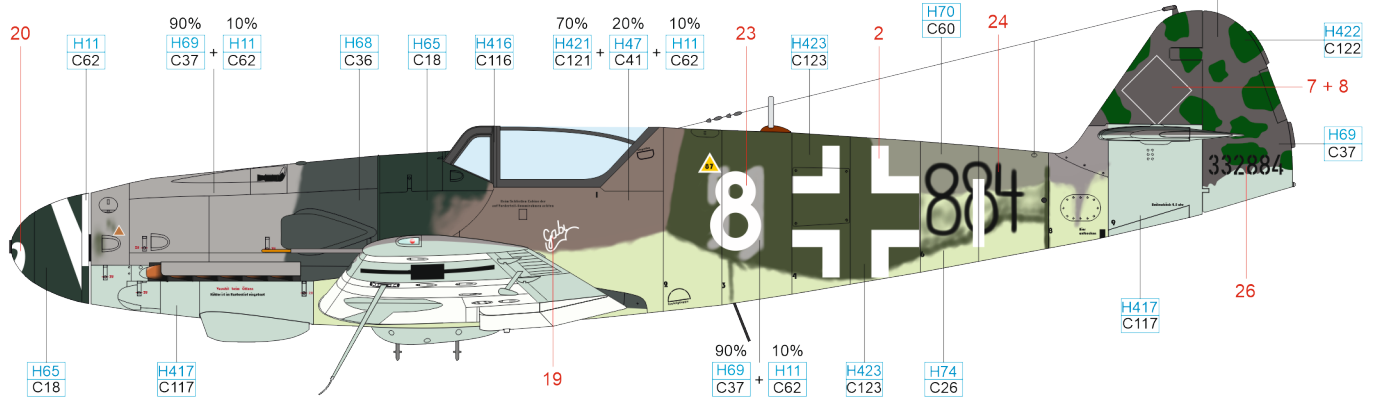


RLM 70	H65 C18	RLM 74	H68 C36	RLM 75	H69 C37	BLACK	H12 C33
RLM 23	H414 C114	GREEN BLUE	H74 C26	RLM 76	H417 C117	FLAT WHITE	H11 C62

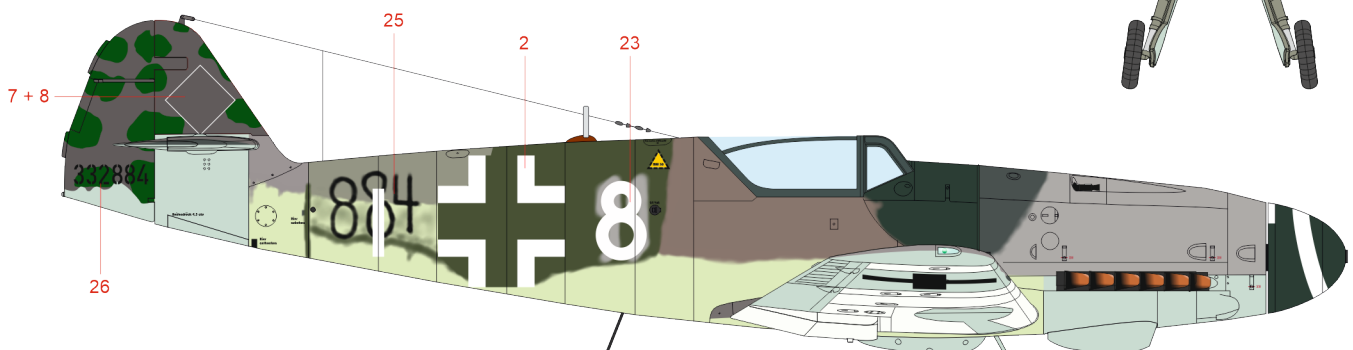
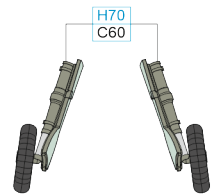
# B WNr. 332884, 9./JG 3, Leck, Germany, May 1945

Since the Allied landings in Normandy in June 1944, 9./JG 3, like other units on the Western Front, was under constant pressure from Allied fighters and bombers. During Operation Bodenplatte, JG 3 was one of the few successful units, yet the loss of sixteen pilots was significant. From January 1945, 9./JG 3 frequently relocated to various German airfields, and at the end of the war, White 8 was stationed at the Leck airbase. In mid-1944, 9./JG 3 was led by Lt. Oskar Zimmermann, who was awarded the Knight's Cross and credited with 34 victories, including 14 four-engine bombers. In mid-March, he fell ill and, at the end of the war, fell into Czech captivity, from which he was released after one year. By the end of the war, the commander of the unit was Hptm. Willy Althof. The camouflage on the fuselage of this aircraft consisted of RLM 81/82 with camouflage patterns typical of production series 332xxx. Many areas are repaired with RLM 82 and RLM 02 paints. The engine covers are painted in lighter shades of RLM 74/75/76. On the left side of the fuselage under the cockpit, the white name Gabi was painted. Beneath White 8, the previous marking has been painted over in RLM 75. In front of the tail surfaces, the black number 884 was hand-painted.

DARKER SHADES OF COLORS

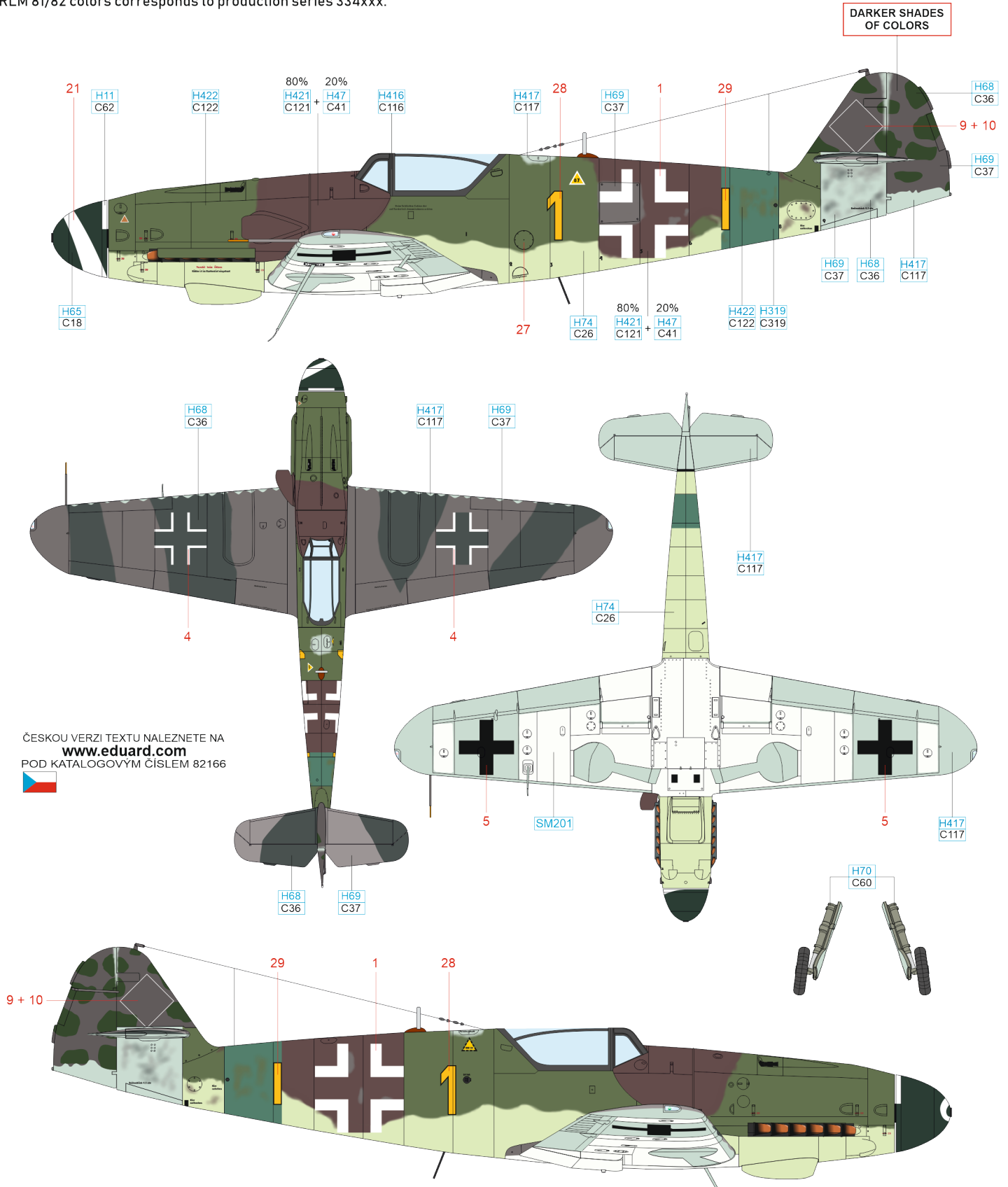


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RLM 70	H65 C18	RLM 74	H68 C36	RLM 75	H69 C37	RLM 76	H417 C117	RLM 82	H422 C122	RED BROWN	H47 C41	
RLM 66	H416 C116	FLAT WHITE	H11 C62	GREEN BLUE	H74 C26	RLM 81	H421 C121	RLM 02	H70 C60	DARK GREEN	H423 C123	
											SUPER FINE SILVER 2	SM201

The CO of III./JG 27 from October 1944 until the end of the war was Austrian Hptm. Dr. Peter Werfft (26 victories). In the same month, the unit was reequipped with the Bf 109K-4. However, from February onward, Werfft was temporarily replaced in this role by the CO of 12./JG 27, Oblt. Emil Clade, who in the final month of the war officially became the CO of I./JG 27. After the war, Clade worked as an airline pilot, pursued sport flying, and published his memoirs in 1996. While serving with II./JG 27 in Africa, he shot down an aircraft in August 1942 carrying the commander of the British Eighth Army, Lt. Gen. W. H. E. Gott, who was killed. Lt. Gen. Montgomery was appointed to replace him. At the end of the war, III./JG 27 was deployed in northern Germany. Yellow 1 from 11./JG 27 was discovered by advancing Allied forces in April 1945 at the Goslar airbase in Germany, where the unit had been stationed from March 29 to April 8, 1945. It later operated from locations in Bohemia, Bavaria, and Austria. From December 1944 until the end of the war, 11. Staffel was led by Oblt. Heinz-Günther Hennig, who had previously commanded 2./JG 53 and 2./JG 102 and was credited with two victories. The fuselage camouflage in RLM 81/82 colors corresponds to production series 334xxx.



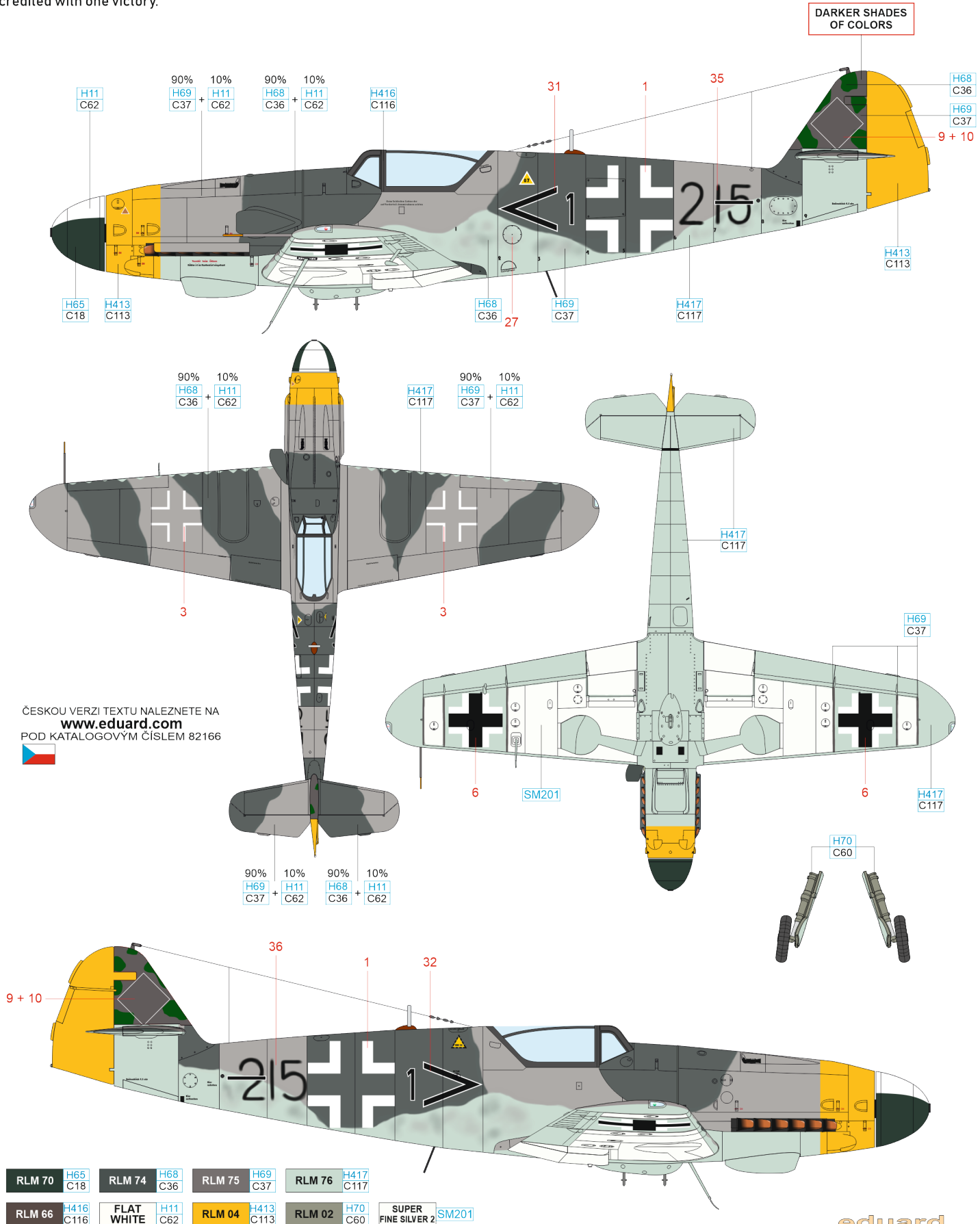
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RLM 70	H65 C18	RLM 74	H68 C36	RLM 75	H69 C37	RLM 76	H417 C117	RED BROWN	H47 C41	GREEN	H319 C319		
RLM 66	H416 C116	RLM 02	H70 C60	RLM 82	H422 C122	GREEN BLUE	H74 C26	RLM 81	H421 C121	FLAT WHITE	H11 C62	SUPER FINE SILVER 2	SM201

# D WNr. 335215, Lt. Willy van de Kamp, Stab II./JG 52, Neubiberg, Germany, May 1945

The markings on this aircraft identify it as the wingman of the commander of II./JG 52, Maj. Wilhelm Batz. In February 1943, Batz was assigned to the staff of II./JG 52 on the Eastern Front. He achieved his first victory on March 11 and was appointed commander of 5./JG 52 in May. By March 1944, he had achieved his 100<sup>th</sup> victory and was made commander of III./JG 52 in April. In early February 1945, he assumed command of II./JG 52, which at the time was fighting in Hungary. His final 237<sup>th</sup> victory was recorded on April 16, 1945. Five days later, he was awarded the Swords to the Knight's Cross with Oak Leaves. On May 8, 1945, Batz and his unit flew into captivity, transferring from Zeltweg in Austria to Bad Aibling in Bavaria, accompanied by a formation of Thunderbolts during the final leg of the journey. The aircraft Black 1 was painted in RLM 74/75/76 camouflage, consistent with production series 335xxx. The yellow band on the nose and yellow rudder were identification features of German aircraft within Luftflotte 4. This particular aircraft was photographed at Neubiberg airfield near Munich. Its pilot was Batz's Adjutant, Lt. Willy van de Kamp, who had served with II./JG 52 since May 1943 and was credited with one victory.

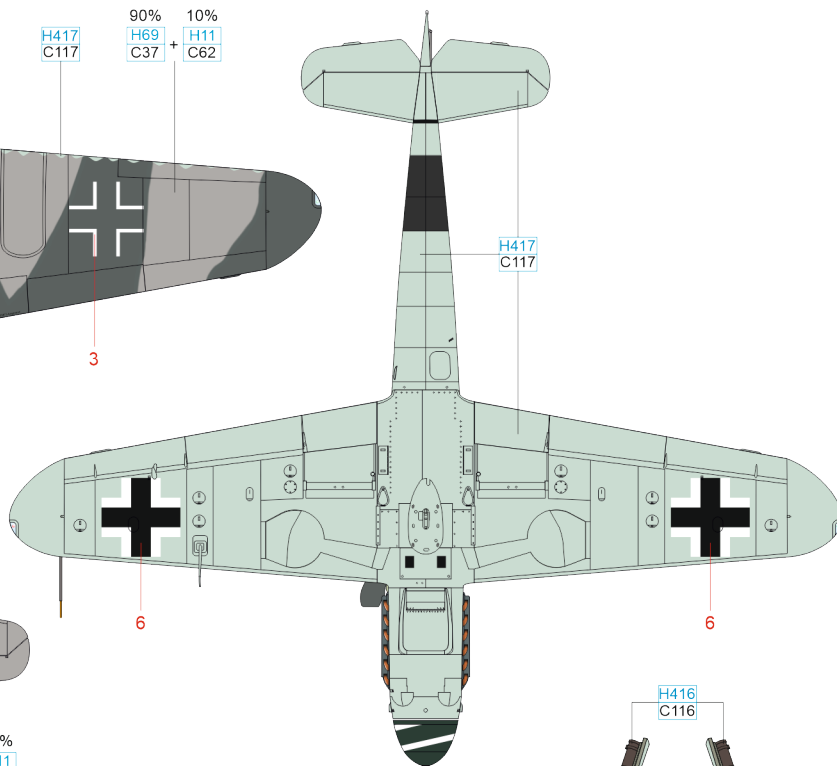
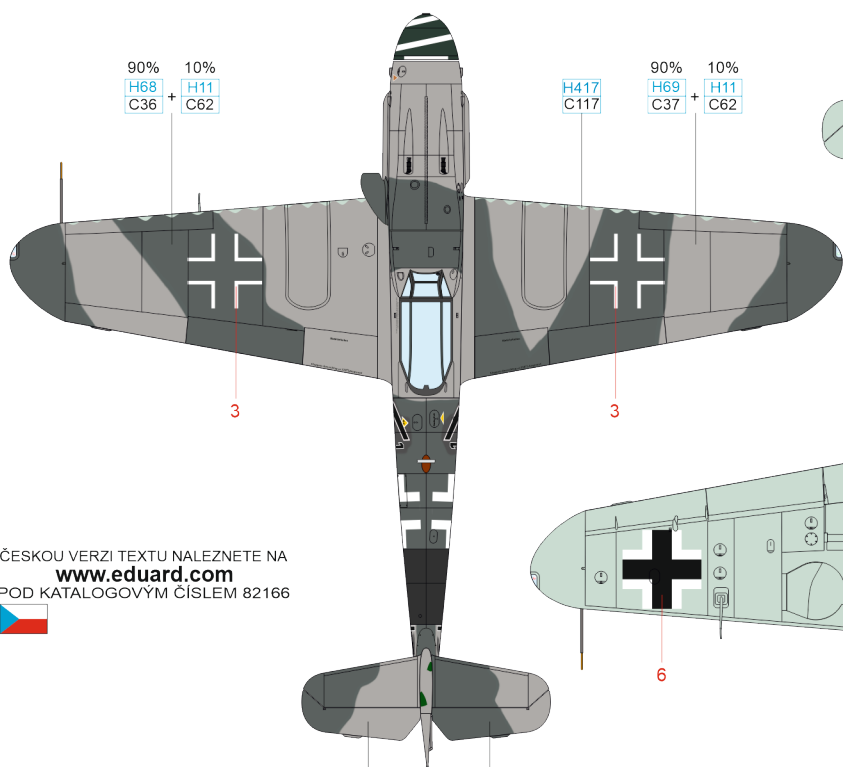
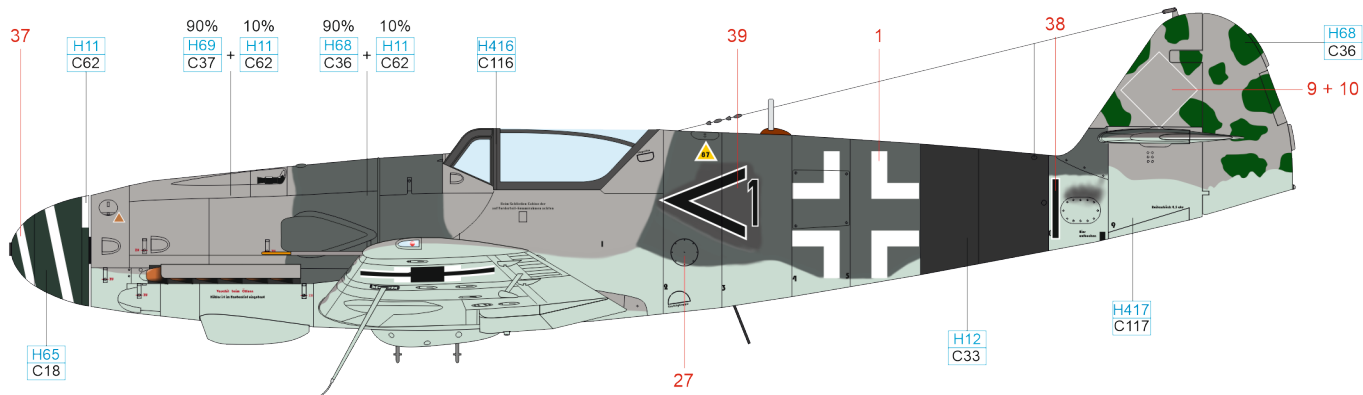


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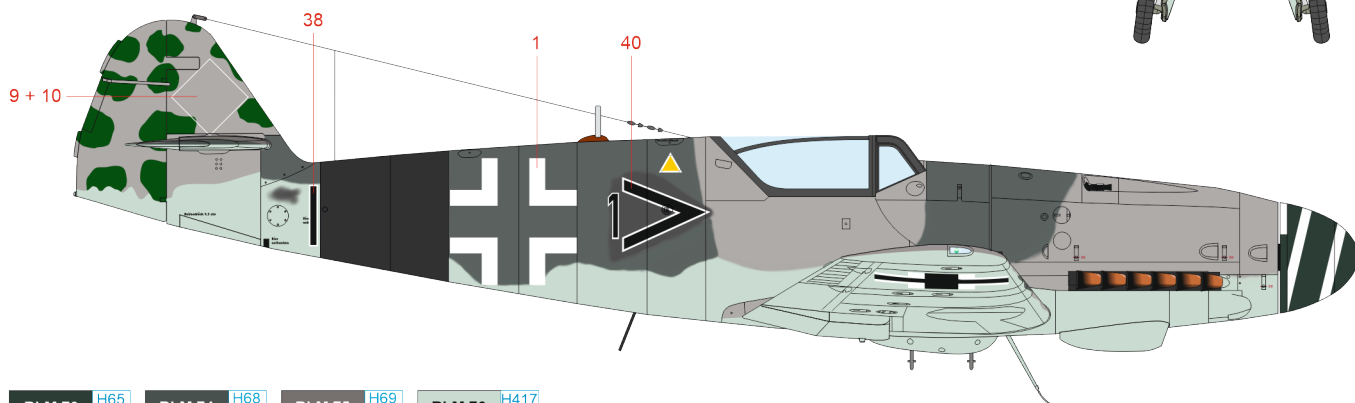
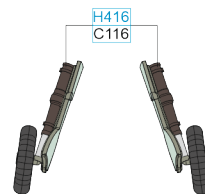
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RLM 66	H416 C116	FLAT WHITE	H11 C62	RLM 04	H413 C113	RLM 02	H70 C60	
							SUPER FINE SILVER 2	SM201

# E WNr. 335xxx, Lt. Ernst-Dieter Bernhard, Stab III./JG 53, Kaufbeuren, Germany, April 1945

JG 53 was established in 1937 and was one of the oldest German fighter units of the Second World War. Its III. Gruppe participated in the early months of fighting in the USSR after the campaign in the West and was deployed in the Mediterranean from late 1941. After relocating from Italy in June 1944, it was stationed at Bad Lippspringe, operating against Allied air raids on the Reich. In September 1944, it contributed to repelling Operation Market Garden. From late 1944, the unit gradually retreated under pressure from Allied forces to the southern part of Germany. The pilot of this aircraft was Lt. Ernst-Dieter Bernhard, who joined 12./JG 53 in December 1944. In mid-March, he was appointed Adjutant to the CO of III./JG 53, who at the time was Hptm. Siegfried Luckenbach. After Luckenbach's collision during landing in April 1945, Hptm. Wolfgang Ernst, who had 36 victories to his credit, replaced him. Lt. Bernhard crashed with the depicted aircraft on April 19, 1945, due to a landing gear failure while landing in Kaufbeuren after combat with a formation of Marauders escorted by Thunderbolts. Bernhard was earlier credited with heavily damaging one Mustang.



90% H69 C37 + 10% H11 C62, 90% H68 C36 + 10% H11 C62



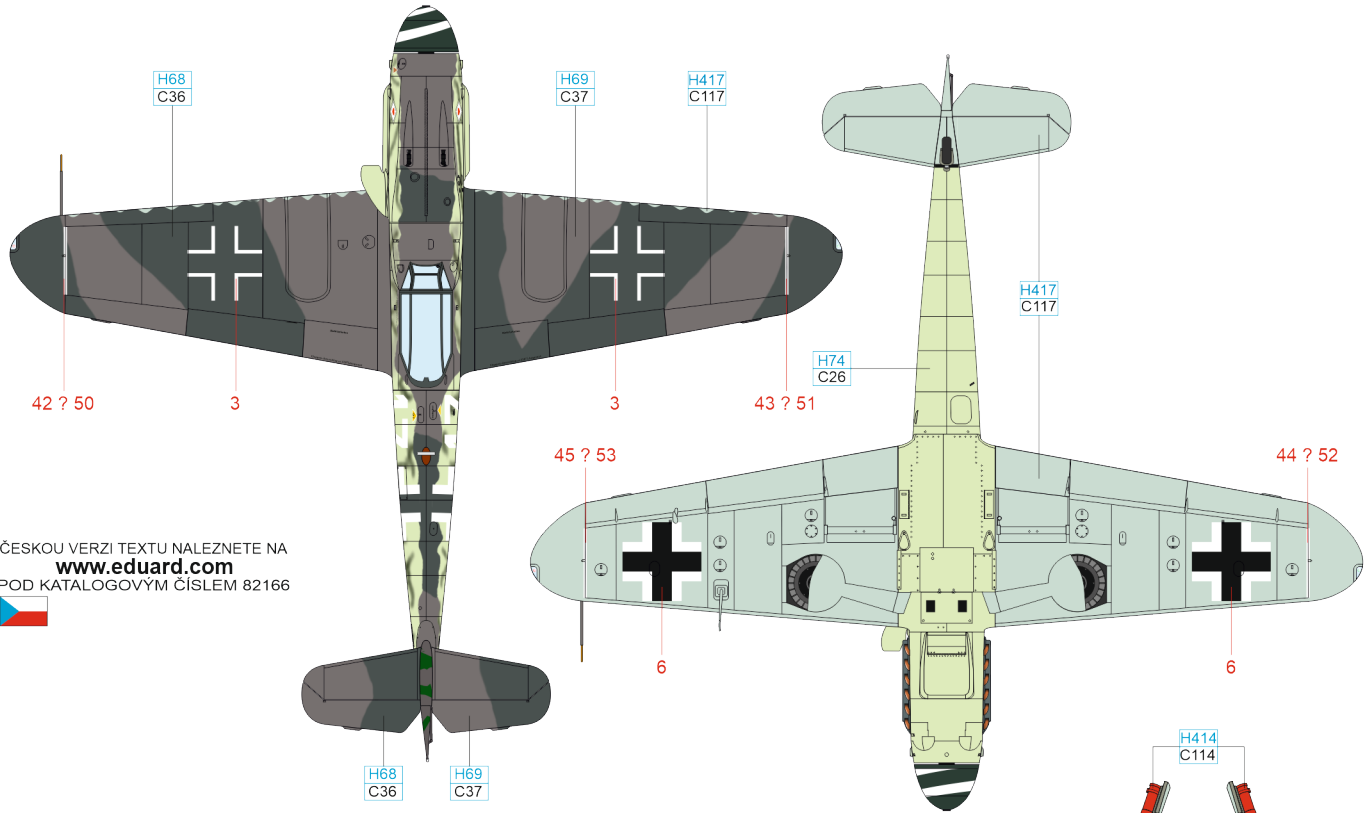
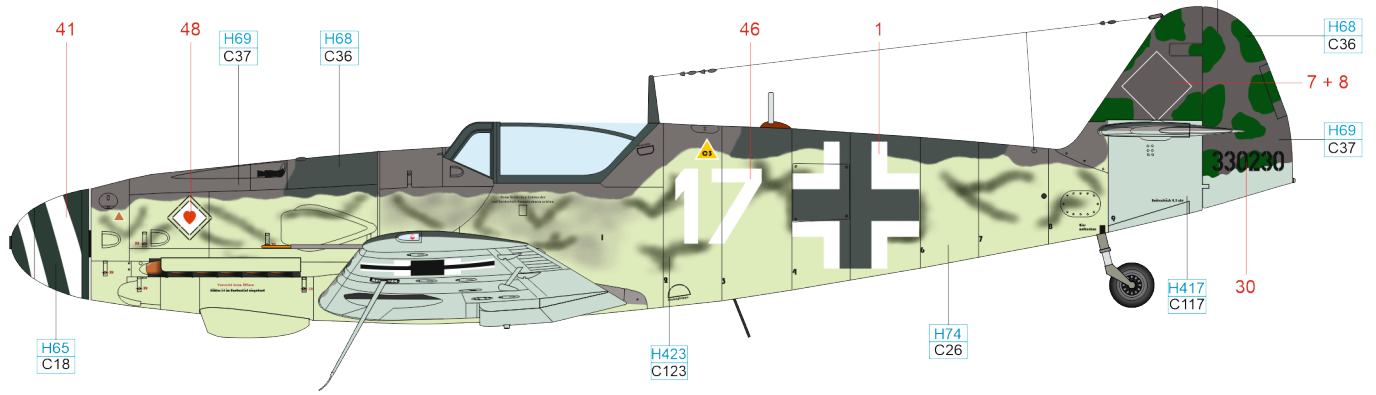
RLM 70 H65 C18, RLM 74 H68 C36, RLM 75 H69 C37, RLM 76 H417 C117

RLM 66 H416 C116, BLACK H12 C33, FLAT WHITE H11 C62

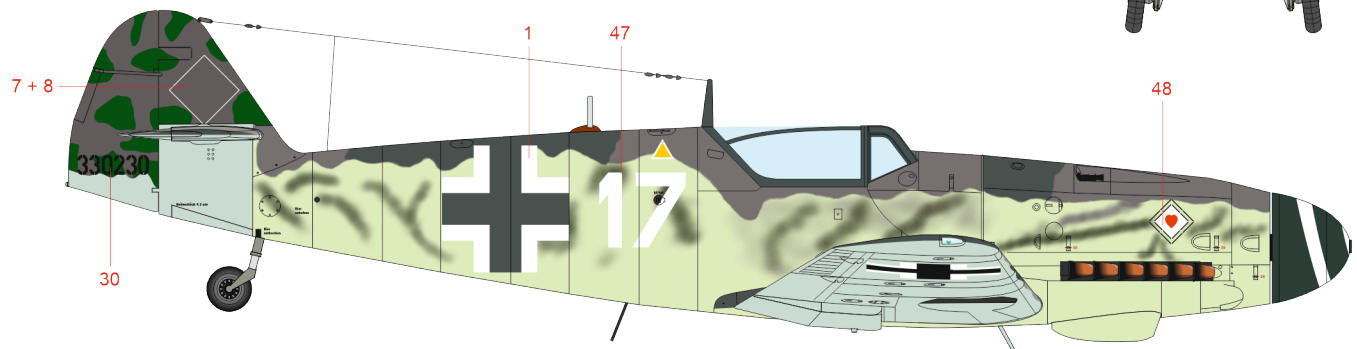
# F WNr. 330230, Uffz. Heinrich Munninger, 10./JG 77, Neuruppin, Germany, November 1944

In October 1944, III./JG 77 became the first Luftwaffe fighter unit to be fully reequipped with the Bf 109K-4s, possessing 68 aircraft. Its commander was the experienced veteran of JG 77, Major Armin Köhler (40 kills, KC). After test flights and familiarization with the new type, it was combat-deployed on December 2, 1944. Aerial combat peaked during the Battle of the Bulge. Uffz. Heinrich Munninger, born on June 30, 1923, flew on January 1, 1945, during Operation Bodenplatte with White 17 as the wingman of Uffz. Johann Twietmeyer. During an attack on the RAF airfield in Antwerp-Deurne (B.70), he was hit by flak and attempted an emergency landing near Tilburg in the Netherlands. He crashed and was killed. His body was buried in Lommel. In this operation, III./JG 77 lost 11 aircraft and pilots. From mid-January 1945, it was deployed on the Eastern Front. At the end of the war, it fought in Upper Silesia, based in Dolní Benešov (Beneschau) in the Hlučín region (Hultschiner Ländchen) in Silesia. White 17 was from production batch 330xxx, with a high demarcation of camouflage colors RLM 74/75 on the sides of the fuselage. On both sides of the nose, there was the emblem of III./JG 77, a red heart.

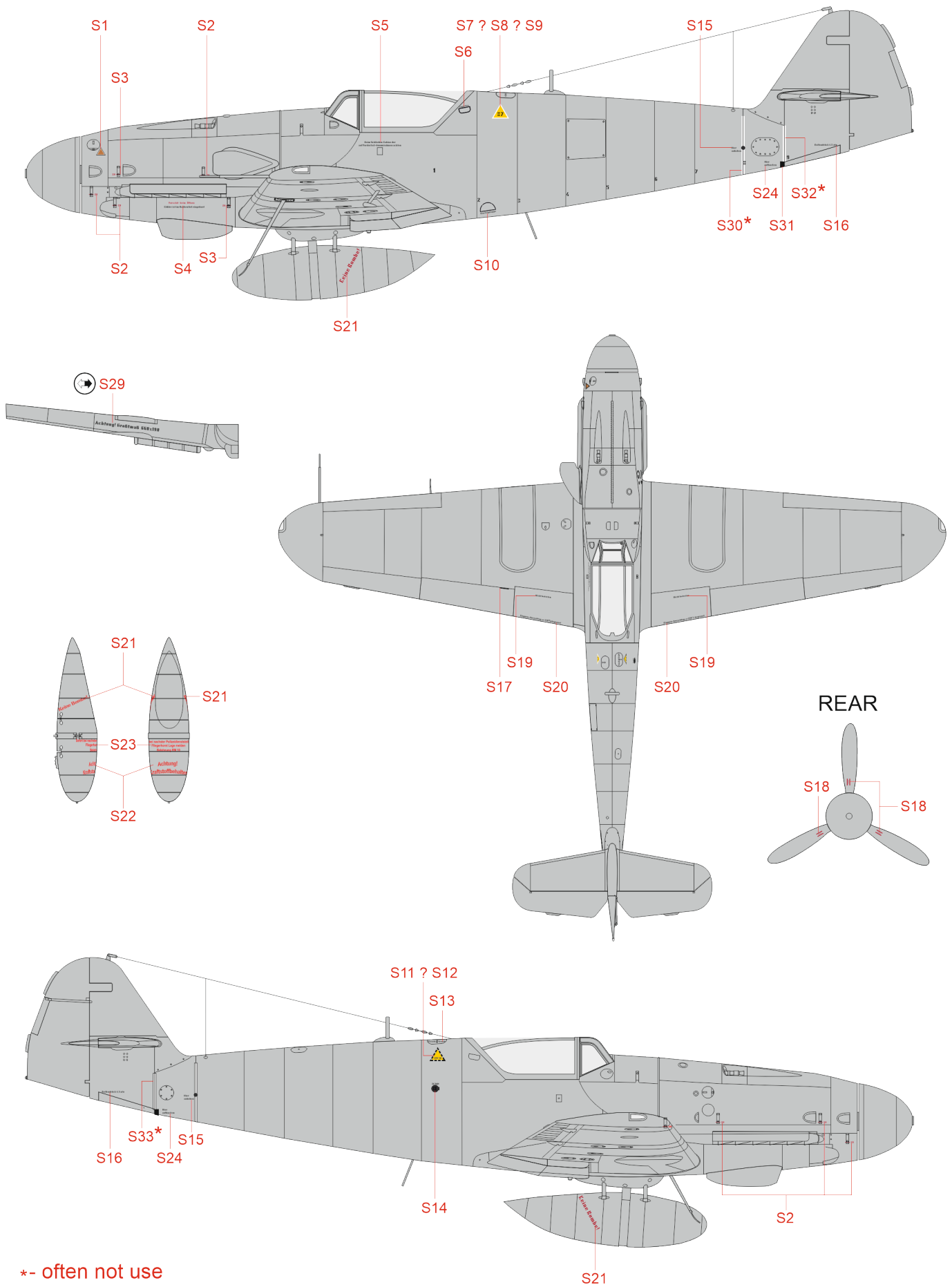
DARKER SHADES OF COLORS



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RLM 70	H65 C18	RLM 74	H68 C36	RLM 75	H69 C37
RLM 23	H414 C114	GREEN BLUE	H74 C26	RLM 76	H417 C117
		DARK GREEN	H423 C123		



\*- often not use