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LIMITED



Bf 109G-5 • Bf 109G-6

# GUSTAV

Pt.1

**INSTRUCTION SHEET**

**1/72**

**DUAL COMBO**

2144-NAV1

Bf 109G-5 • Bf 109G-6  
**GUSTAV** Pt.1



by VLADIMÍR ŠULC

**During WWII, no other aircraft was more associated with the rise and fall of the Luftwaffe than the Messerschmitt Bf 109. It gradually developed through the war with the Gustav series being the most numerous of them all.**

The history of the Bf 109 began at the end of March 1933, when the Reich Ministry for Aviation issued specification L.A. 1432/33 for the development of a single-engine fighter monoplane. Arado, Heinkel, Focke-Wulf and Bayerische Flugzeugwerke took part in the competition. In the last of these mentioned, the post of technical director was held by Willy Messerschmitt, whose reputation was greatly strengthened by the success of the Bf 108 courier aircraft, completed not long before. Messerschmitt's goal was to create an aircraft with the best possible power to overall weight and size ratio of the aircraft. The result was a low-wing airplane with subtle aerodynamic shapes and progressive design elements, such as an all-metal structure, retractable landing gear, slats, flaps, an enclosed cockpit, and a modern fuselage shell structure. As a result, Messerschmitt's Bf 109 somewhat surprisingly won the competition over the designs of more renowned competitors.

The first combat deployment of three test Bf 109s took place during the Spanish Civil War in December 1936. Units of the 2.J/88 Legion Condor gradually gained valuable combat and tactical experience with all development versions of the Bf 109, from the B-1 to the E-1, for which the original problematic Jumo 210 engine was replaced by the modern inverted twelve-cylinder inline DB 601. Together with the later DB 605, it powered several tens of thousands of produced 109s in more than twenty-five versions and subvariants.

**Bf 109E**

Introduced into Luftwaffe service in 1939, the Bf 109 E was fitted with a new Daimler-Benz DB 601 engine driving a VDM 9 three-blade variable pitch propeller. Production of the E-1 with four 7.9mm machine guns and the E-3 with two 7.9mm machine guns and two MG-FF 20mm cannon ran in parallel from the beginning of 1939. Thus, the Luftwaffe entered World War II armed with the most modern and powerful single-engine fighter in the world, forming the backbone of its units until the spring of 1941. From the invasion of Poland, through the Sitzkrieg on the Western Front, the invasion of Norway, the Battle of France to the Battle of Britain, the Bf 109 E ensured technical and tactical superiority of the Luftwaffe over its opponents. After the Battle of Britain in the autumn of 1940, however, it became increasingly clear that the time was ripe for change.

**Bf 109F**

This came in the form of the Bf 109 F, the development of which began as early as the autumn of 1938. It was designed for the new DB 601 E engine with an estimated power output of 1350 hp, compared to the 1100 hp of the DB 601 A engine. The result of the work of the design team under chief designer Robert Lusser, it was innovative both technically and visually, a machine that, among other things, brought about a change in the concept of installing on-board weapons, when the two MG FF cannons in the wing were replaced by a fuselage cannon, located between the engine cylinders and firing through the propeller hub, supplemented by a pair of 7.9 mm MG 17 machine guns. Apart from the aerodynamic refinement of the nose, the introduction of a new spinner and an air intake of circular cross-section feeding the turbocharger, the struts supporting the tail unit were eliminated. The wing received an elegant wingtip shape with a cutout for a position light on the leading edge and, more importantly, new glycol coolers were added, the control flap of which also formed the inner part of the flap system. The slats remained automatic as on the Bf 109 E, and the control surfaces with metal internal structure were covered with canvas. The tail wheel was retractable. The fuselage fuel tank, located under and behind the pilot's seat, had a volume of 400 liters.

Due to the delay in the development of the DB 601 E engine, the first production version of the Bf 109 F-1 used the DB 601 N rated at a maximum of 1175 hp. It was based on the DB 601 A engine, the increase in power was achieved by changing the compression ratio and using C3 fuel with an octane rating of 96. The new aircraft, of which probably a little over 200 were produced in this version, came one by one to the front-line units during the autumn of 1940, but none of the combat units were ever completely re-armed with it. The first to receive them in early October was Stab/JG 51, where the first two combat sorties were undertaken by Major Werner Mölders on October 9, 1940 with Bf 109 F-1 WNr.5628 coded SG+GW, and by October 11, he had shot down a Spitfire Mk.I from No.66 Squadron RAF over Folkestone.

**Bf 109 F-2 and F-4**

In January 1941, the first mass-produced version of the Bf 109 F, in the form of

the dash 2, again powered by the DB 601 N, but this time with a 15 mm MG 151/15 cannon as the main weapon, began arriving at combat units. In June 1941, the first Bf 109 F-4 arrived at the front. The main modification of the F-4 was the finally completed and fine-tuned DB 601 E engine with a maximum power rating of 1,350 hp, driving a three-blade, variable pitch VDM 9-12004.10 propeller. The engine used standard 87 octane B4 aviation fuel. Main armament was upgraded thanks to the installation of the MG 151/20 engine mounted 20mm cannon, and the 7.9mm MG17 machine guns were retained.

Around 600 Bf 109 F-4/Zs were equipped with the GM-1 boost system, which injected nitrous oxide into the cylinders, briefly increasing engine power at altitudes above 19,700 feet. These had a larger 9-6150 (Fö 870) oil cooler and a VDM 9-12087A propeller with wider blades. Part of the 576 tropicalized Bf 109 F-4 Trop aircraft also had a larger oil cooler, which also received a larger air intake to the turbocharger with a dust filter that could be closed off. Both the Bf 109 F-2 and F-4 could be converted to fighter-bombers by installing an under-fuselage bomb rack, and a part of the Bf 109 F-4 production was converted for photo-reconnaissance duties becoming the Bf 109 F-4/R2, R3, R4 and R8, carrying various types of on-board photographic equipment. A total of 3,617 Bf 109Fs were produced, production ending in May 1942.

### Bf 109 G-2 and G-4

Further development of the Bf 109 was associated with the new DB 605 A engine with a power rating of 1,454hp at takeoff, combat power at an altitude of 18,700 feet was 1,231hp, emergency power at the same altitude was 1,335 hp. The DB 605 A engine was developed from the DB 601 E. There was an increase of displacement from 33.9 L to 35.7 L by increasing the cylinder bore by 4 mm. By changing the valve timing, an increase to a maximum of 2,800rpm from 2,600rpm was achieved. There was an upgrade of the compressor, the speed of which was now automatically controlled by a hydromechanical clutch depending on the barometric pressure at different altitudes. The changes led not only to an increase in performance, but also a slight increase in weight from 700 kg to 756 kg. The engine used 87 octane B4 aviation fuel and drove a 9-12087 propeller with wider blades. Due to the need for more efficient cooling of the more powerful engine, a larger Type 9-6150 (Fö 870) oil cooler was used, the same as installed on the Bf 109 F-4/Z.

The first production version of the Bf 109 G-2, manufactured from May 1942 initially at WNF and then also at Messerschmitt in Regensburg and at ERLA in Leipzig

Bf 109 G-6/R6 of I./JG 27 commander Maj. Ludwig Franzisket on a photo from early 1944 with the MG 151/20 gun pods (Flügelgondel – bewaffnung zwei MG 151/20 mm).



photo: Bundesarchiv

from June, was visually very similar to the Bf 109 F-4, but in fact introduced a number of changes. First of all, the fuselage structure was strengthened, especially in the area of the engine bulkhead and in the rear part of the fuselage between the 8th and 9th fuselage bulkheads, where it was already strengthened in the Bf 109 F-4. Changes took place in the cockpit, the wall between the cockpit and the space for housing the MG 17 machine guns was changed and strengthened, and the fuel tank was also redesigned. The tank filler neck moved from the port side under the canopy to the left side of the fuselage spine between the second and third bulkheads. Optically and structurally, the cockpit canopy underwent significant changes, which received a characteristic robust framing with integrated armored glass for the windscreen. The wing structure was strengthened, the tailwheel remained retractable with a tire size of 290x110 mm. The main landing gear of the G-2 retained the 650x150 mm tires, same as the F-4. A significant change was the standardization of fasteners for the mounting of weapons and equipment on the airframe, which facilitated the later modernization of the aircraft to higher versions with the help of modernization kits (Rüstsätzen). This design strategy was retained for all G-version subtypes from the G-2 to the G-10 and allowed the airframes of older machines to be suitable for conversion to higher standard versions. It also made it easier to train and maintain staff on later versions. All versions of the Bf 109 G were also produced with tropical modifications, and the G-2/G-4 versions were still listed

in documentation as two versions, the standard G-2/G-4 and the tropicalized G-2/Trop and G-4/Trop.

Production of the subsequent Bf 109 G-4 began at Messerschmitt in September 1942, at WNF in December of the same year, and at ERLA the following January. The G-4 version did not differ in appearance from the G-2 at the start of production, and it is not entirely clear why the new type number was applied. At first, the only significant change was in the radio equipment, where the G-4's older FuG VIIa shortwave radios gave way to the new FuG 16 Z or FuG 16 ZY VHF units. In addition to the radios, the FuG 16 ZY equipment also had a built-in transponder for the Pegasus Y goniometric gunsight with a Moranmast rod antenna. Some machines were equipped with a ZVG 16 direction finding device with a PR 16 loop antenna on the back of the fuselage. This device was supplied as a Rüstsatz R7 Peilruffanlage set.

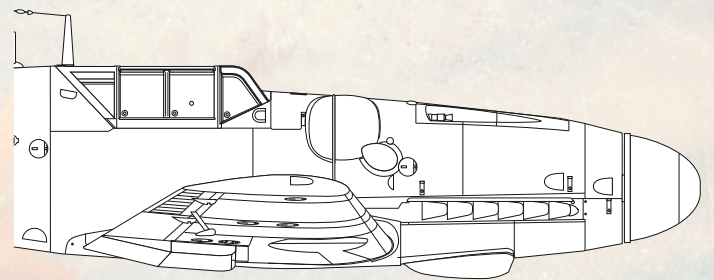
During the production of the Bf 109 G-4, probably in December 1942, there was a change in the size of the wheels of the main landing gear. The wheels received larger tires measuring 660x160 mm (compared to 650x150 mm for the Bf 109 G-2), and larger steel brake discs. This necessitated a deepening of the landing gear bay by installing a bulge in the upper wing skin over the landing gear well. The tailwheel was enlarged to 350x135 mm, compared to 290x110 mm for the Bf 109 G-2. It continued to be fixed, non-retractable, with a leather sleeve covering its strut. The installation of larger tires was a response not only to the increasing weight of the aircraft, but also to persistent problems with tire life and stability of the aircraft during take-off and landing. Unfortunately, these features are not definitive for determining G-2 or G-4 variant, as the early production G-4s still had the original smaller wheels with a smooth wing surface without a bulge above the landing gear well and a small retractable tailwheel. Conversely, older G-2s were retrofitted to the G-4 standard by installing larger wheels and appropriate equipment.

A total of 1,586 Bf 109 G-2s and 1,242 Bf 109 G-4s were produced by May of 1943, in addition to which one license built Bf 109 Ga-2 and twenty-four Bf 109 Ga-4s were produced in Győr, Hungary. Additionally, 167 Bf 109 G-1s and 50 Bf 109 G-3s with pressurized cabins were manufactured. All versions could be equipped with an additional 300l drop tank, as well as pods containing MG 151/20 20mm cannon.

### Bf 109 G-6

Starting in February and March 1943, all three involved German manufacturers ramped up production of the new Bf 109 G-6 version, Messerschmitt and WNF

in February, ERLA in March. Production of the G-4 and G-6 versions then ran in parallel until May 1943. From September 1943, licensed Bf 109 Ga-6s were also produced in Győr, Hungary. The main difference between the G-6 version and the G-4 was the installation of 13mm MG 131 fuselage machine guns. This was developed over a relatively long period of time, with the first tests already taking



The small bulge on the right side of the engine cowling was on aircraft of the following production blocks: 15 000, 26 000, 27 000, 110 000, 410 000 to 413 000 (all ERLA), 140,000 (WNF), and 165 000 to 167 000 (Messerschmitt).

photo: Bundesarchiv

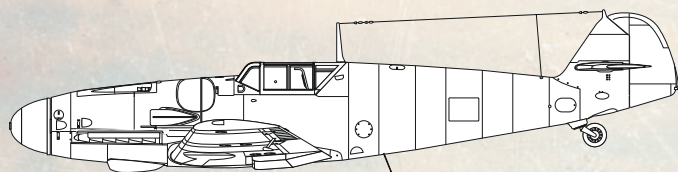


Bf 109 G-6/W of 2./JG 53 "Pik As" with Bordrakete BR 21 cm rockets at the Italian base Maniago in early 1944.

place on the Bf 109 F, but a production installation was not available until early 1943. The distinguishing feature of the G-6 version was the large oval bulges covering the MG 131 machine gun breech. These bulges were half on the engine cowling and half on the gun breech cover in front of the cockpit windshield. The Bf 109 G-6s could also carry MG 151/20 gun pods under the wings, or BR 21 cm rocket launchers, used to attack heavy four-engine bomber formations in the West, in the MTO and in the Reichsverteidigung (Reich Defence System). From the Bf 109 G-6 was derived the high altitude version Bf 109 G-5 with a pressurized cabin, its distinguishing feature, as with the previous high altitude versions of the Bf 109 F and G, was the head armor integrated in the central part of canopy to form the rear wall of the pressurized cabin. The G-5 version was also distinguished by a small bulge added below the large bulge on the right side, but this small bulge was also used on some of the Bf 109 G-6s produced by Erla and WNF. The Erla-built aircraft also had different shape of the machine gun barrels fairings. The Bf 109 G-6 was produced in many production blocks until December 1944. A total of about 13,000 were built, the exact number is unknown due to lack of documentation. The Bf 109 G-6s were continuously upgraded during the long production period and their appearance gradually changed. The Bf 109 G-6/AS, powered by the powerful DB 605 AS engine with a larger compressor, whose installation necessitated a complete change in the shape of the engine cowling, differed most significantly in appearance from the first Bf 109 G-6s. However, the classic Bf 109 G-6 with the DB 605 A engine also differed from each other, not only in appearance but also in equipment. The 1,634 Bf 109 G-6/U4 produced by WNF were armed with the MK 108 30 mm engine-mounted gun. The 345 Bf 109 G-6/U2s produced by Erla were equipped with the GM-1 boosting system (engine cylinder nitrous oxide injection), and 195 photo reconnaissance Bf 109 G-6/R2s from WNF received the MW 50 compressor air intake methanol-water mixture injection boost system. While the standard machines as the GM-1 equipped ones had standard DB 605 A engines using B4 fuel with an octane rating of 87, all of the machines equipped with the MW 50 boosting system had modified engines using C3 fuel with an octane rating of 96. From the summer of 1944, REVI 16 B sights were fitted to the Bf 109 G-6. Bf 109 G-6s were produced with tropical equipment as standard, and all could be fitted with a dust filter on the air intake to the compressor.

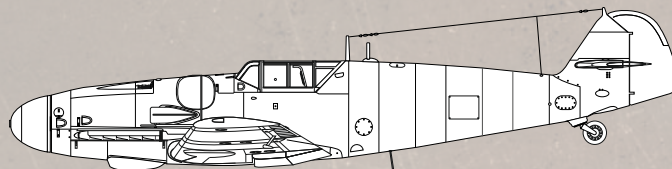
In general, the production of the classic Bf 109 G-6 with the DB 605 A engine can be divided into five production versions according to the changes introduced to the equipment and some parts of the airframe.

**The first production version:** production blocks 15 000 (Erla), 16 000 (Messerschmitt), 17 000 (Győr - Hungary), 18 000 (Messerschmitt), 19 000 (WNF) and 20 000 (WNF).



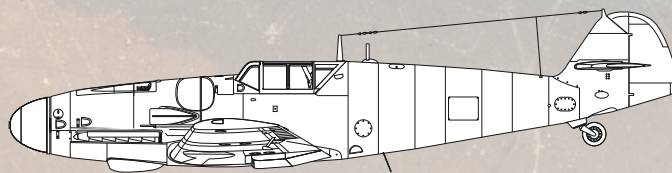
These aircraft, except for the installation of MG 131 machine guns, corresponded to the Bf 109 G-4. They had a tall antenna mast, were equipped with the FuG 16 Z radio equipment sets without the Morane whip aerial array, located under the fuselage or under the wing, characteristic for latter FuG 16 ZY set, and were not equipped with the ZVG 16 directional guidance system with the PR 16 loop antenna on the back of the fuselage. On the left side of the fuselage below the canopy were two mountings for the sunshade.

**The second production version:** production blocks 26 000 (Erla), 27 000 (Erla), 32 000 (Erla), 33 000 (Erla) and 140 000 (WNF).



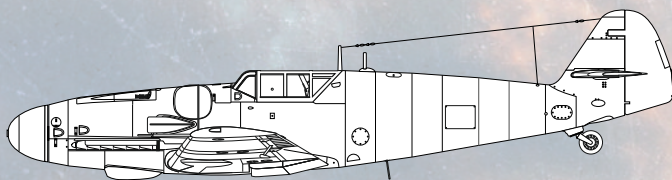
These aircraft were equipped with a shorter antenna mast and were usually fitted with a ZVG 16 directional guidance system with a PR 16 (Peilrahmen) loop antenna on the back of the fuselage. Command machines could be equipped with the FuG 16 ZY radio equipment sets with an on-board transponder for the Pegasus Y goniometric location system with a Morane whip aerial array (Moranemast) located under the fuselage on the wing centre plane. On the left side of the fuselage under the cockpit were the two sunshade mountings.

**The third production version:** production blocks 160 000 to 163 000 (Messerschmitt), 410 000 to 413 000 (Erla), 440 000 to 442 000 (WNF), 510 000 (WNF) and 760 000 (Győr - Hungary).



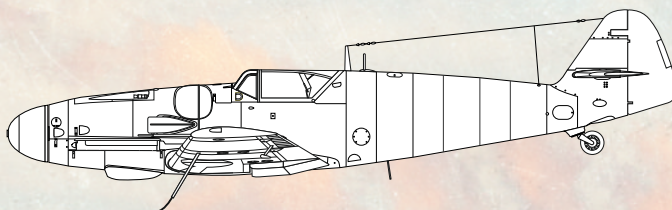
These aircraft received new Gallandpanzer armor with laminated armor glass behind the pilot's head. They were fitted with the short antenna mast, were usually equipped with the homing unit ZVG 16 with a circular PR 16 (Peilrahmen) loop antenna on the top of fuselage, and command aircraft could be fitted with the FuG 16 ZY radio equipment set with a Morane whip aerial array (Moranemast) located under the fuselage on the wing center plane. On the left side of the fuselage under the cockpit were the two sunshade mountings.

**The fourth production version:** production blocks 160 000 to 163 000 (Messerschmitt), 410 000 to 413 000 (Erla), 440 000 to 441 000 (WNF).



In addition to the previous version upgrades, these aircraft had the high rudder. Some of the machines of production blocks 164 000 to 166 000 were built by Messerschmitt as Bf 109 G-6/AS with DB 605 AS engine. The command machines were equipped with FuG 16 ZY electronic set with Morane whip aerial array (Moranemast) located under the left wing half. The left side of the fuselage under the cockpit had sunshade mountings. Some of the machines of production block 163 000 were built by Messerschmitt as Bf 109 G-6/AS with DB 605 AS engine.

**The fifth production version:** production blocks 164 000 to 167 000 (Messerschmitt) and 413 000 (Erla).



In addition to the high rudder, these aircraft also had a new Erla Vollsichtshaube type canopy. Some of the machines of production blocks 164 000 to 166 000 were built by Messerschmitt as Bf 109 G-6/AS with DB 605 AS engine. The command machines were equipped with FuG 16 ZY radio equipment set with Morane whip aerial array (Moranemast) located under the left wing half. The left side of the fuselage under the cockpit no longer had sunshade mountings. Some of the machines of production block 167 000 had a longer tail wheel landing gear strut without covering cuff.

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 započatím 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. SYMBOLS \* INSTRUKTION SINNBILDEN \* SYMBOLES \* 記号の説明

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

PARTS



DÍLY



TEILE



PIÈCES

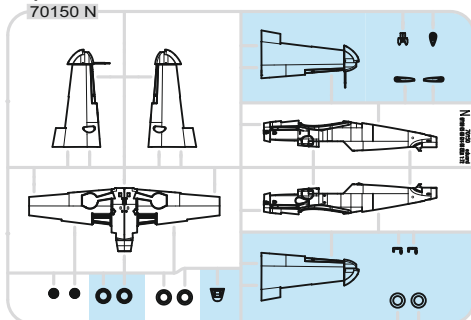


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## PLASTIC PARTS

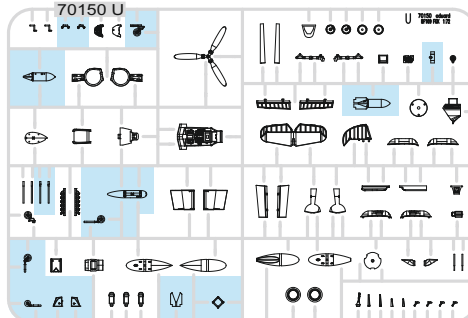
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70150 N



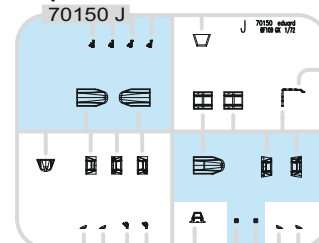
U&gt; 2 pcs.

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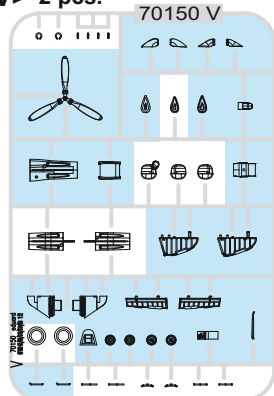
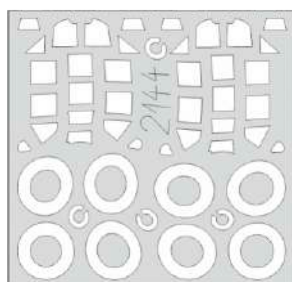
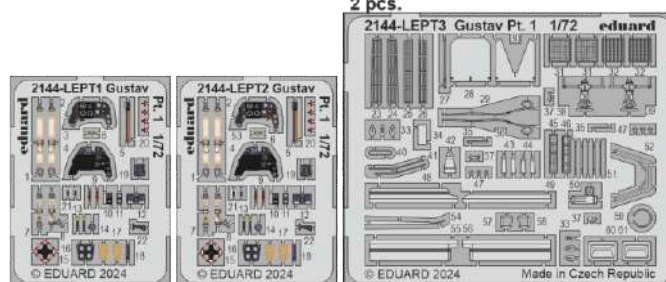
J&gt; 2 pcs.

70150 J



V&gt; 2 pcs.

70150 V

eduard  
MASKPE - PHOTO ETCHED DETAIL PARTS  
2 pcs.

-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



PEINTURE

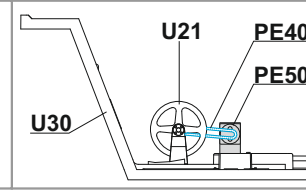
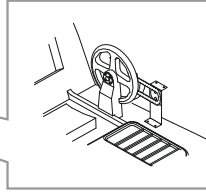
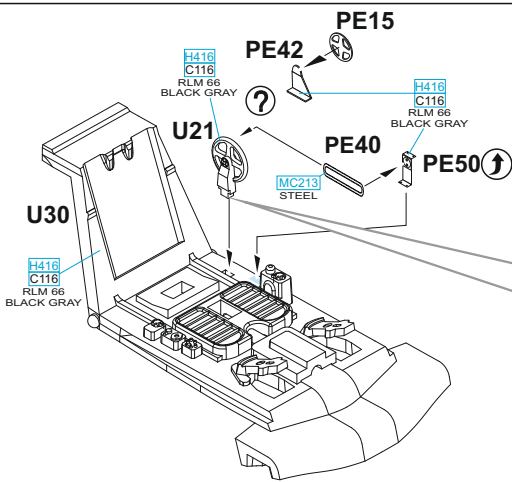


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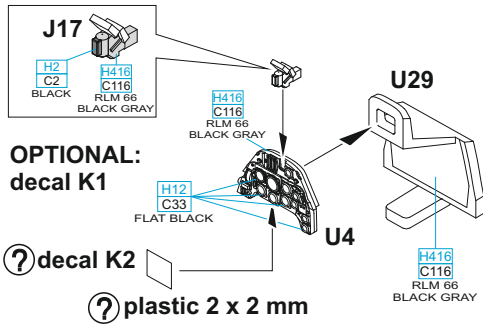
GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H2	C2	BLACK
H11	C62	FLAT WHITE
H12	C33	FLAT BLACK
H25	C34	SKY BLUE
H47	C41	RED BROWN
H65	C18	RLM70 BLACK GREEN
H68	C36	RLM74 DARK GRAY
H69	C37	RLM75 GRAY
H70	C60	RLM02 GRAY
H77	C137	TIRE BLACK
H90	C47	CLEAR RED
H94	C138	CLEAR GREEN

GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H324	C324	LIGHT GRAY
H413	C113	RLM04 YELLOW
H414	C114	RLM23 RED
H416	C116	RLM66 BLACK GRAY
H417	C117	RLM76 LIGHT BLUE
Mr.METAL COLOR		
MC213		STEEL
MC214		DARK IRON
Mr.COLOR SUPER METALLIC		
SM201		SUPER FINE SILVER
Mr.COLOR GX		
GX05		SUSIE BLUE

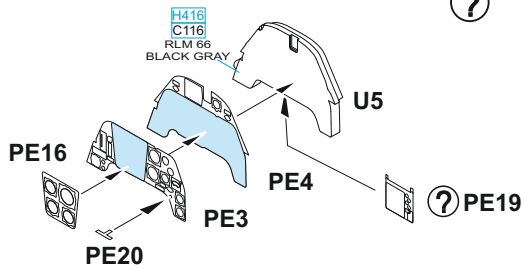
# Bf 109G-5, Bf 109G-6



## MARKINGS A, B, C, D

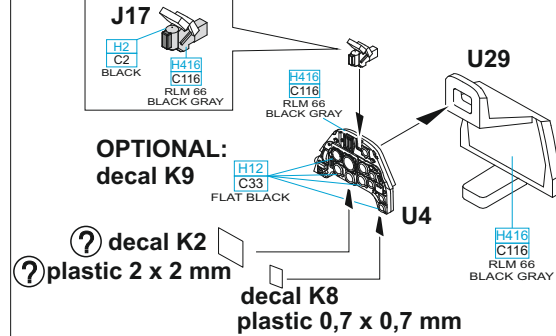


plastic, decal K2 - MARKINGS B, C ONLY

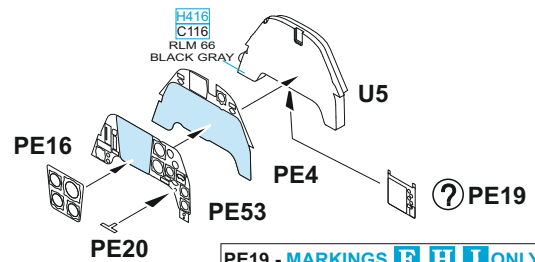


PE19 - MARKINGS B, C ONLY

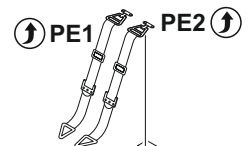
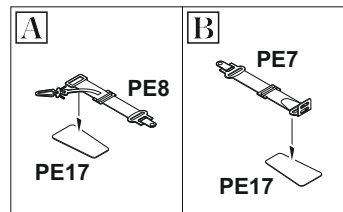
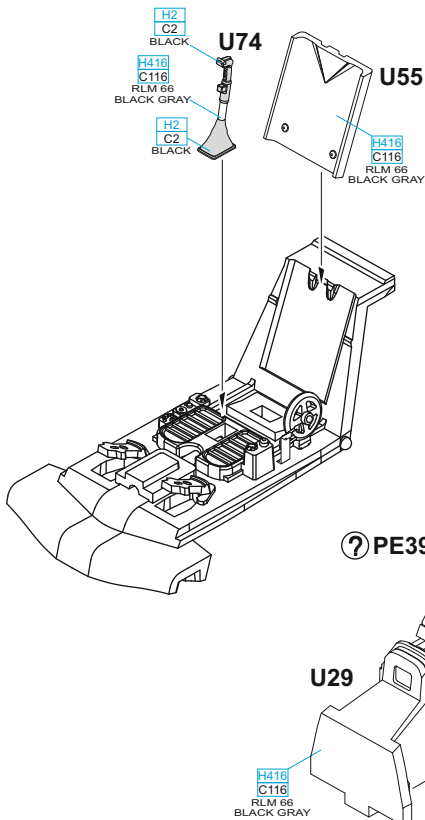
## MARKINGS E, F, G, H, I, J, K, L, M, N

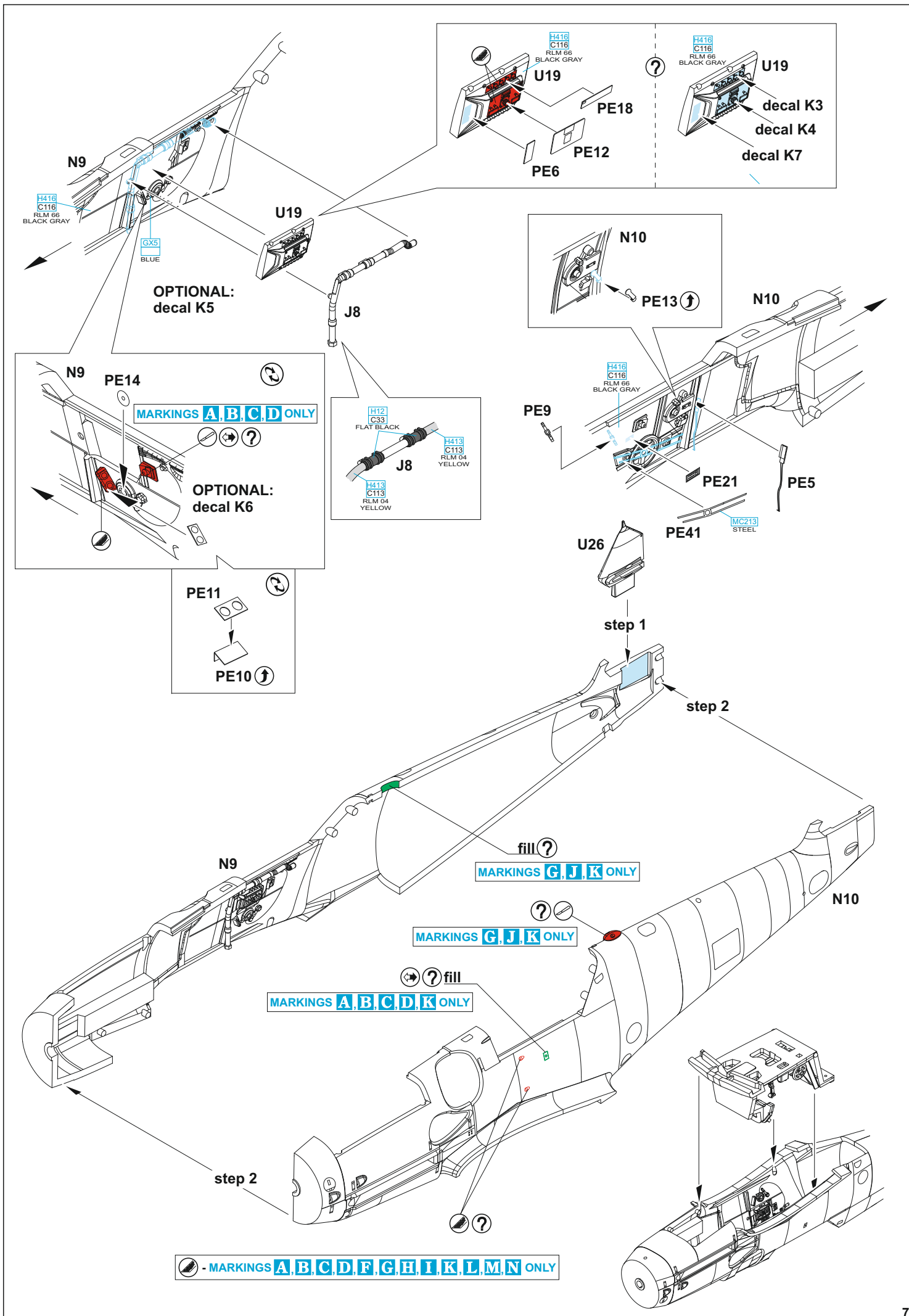


plastic, decal K2 - MARKINGS F, H, I ONLY



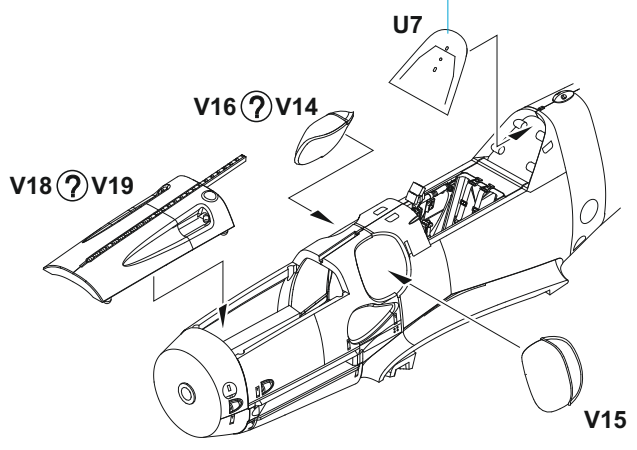
PE19 - MARKINGS F, H, I ONLY



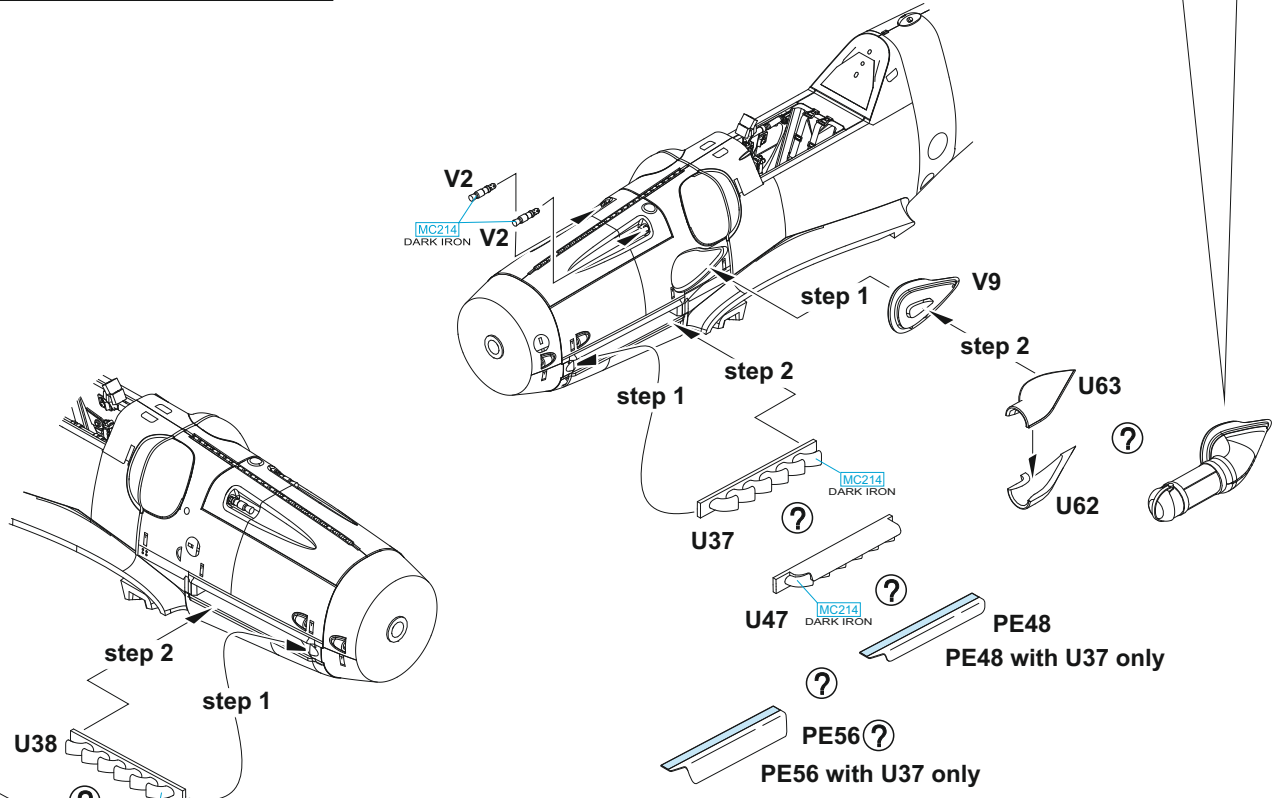
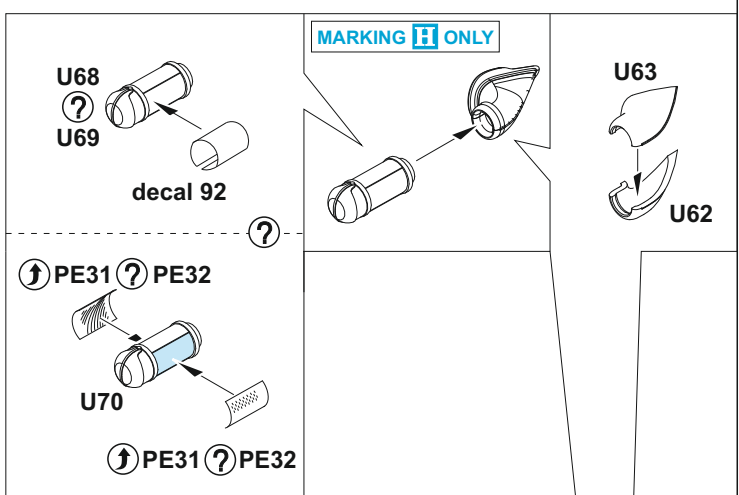


V14 - MARKINGS **A, B, C, D, G, H, I** ONLY

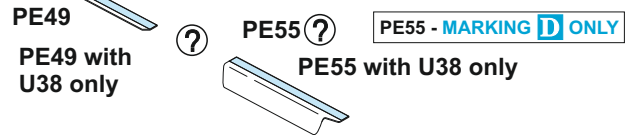
H416  
C116  
RLM 66  
BLACK GRAY



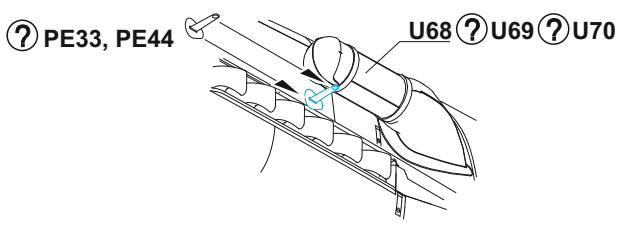
V19 - MARKINGS **A, B, C, D, G, H, I** ONLY



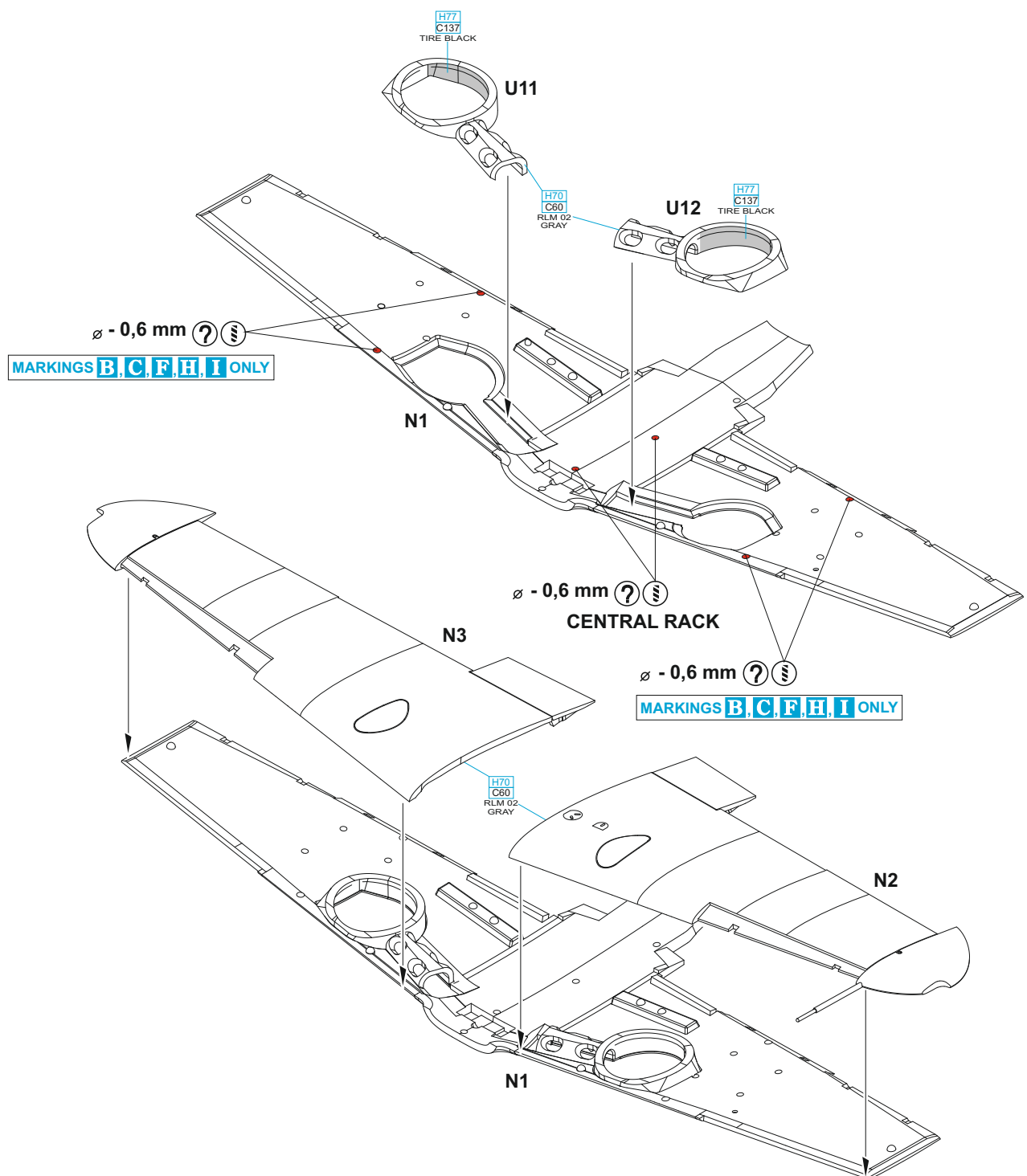
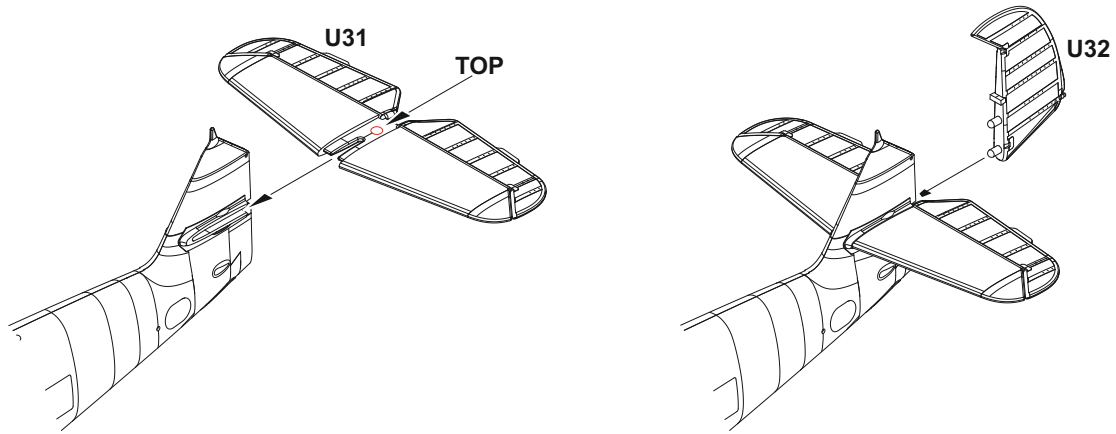
PE56 - MARKING **D** ONLY



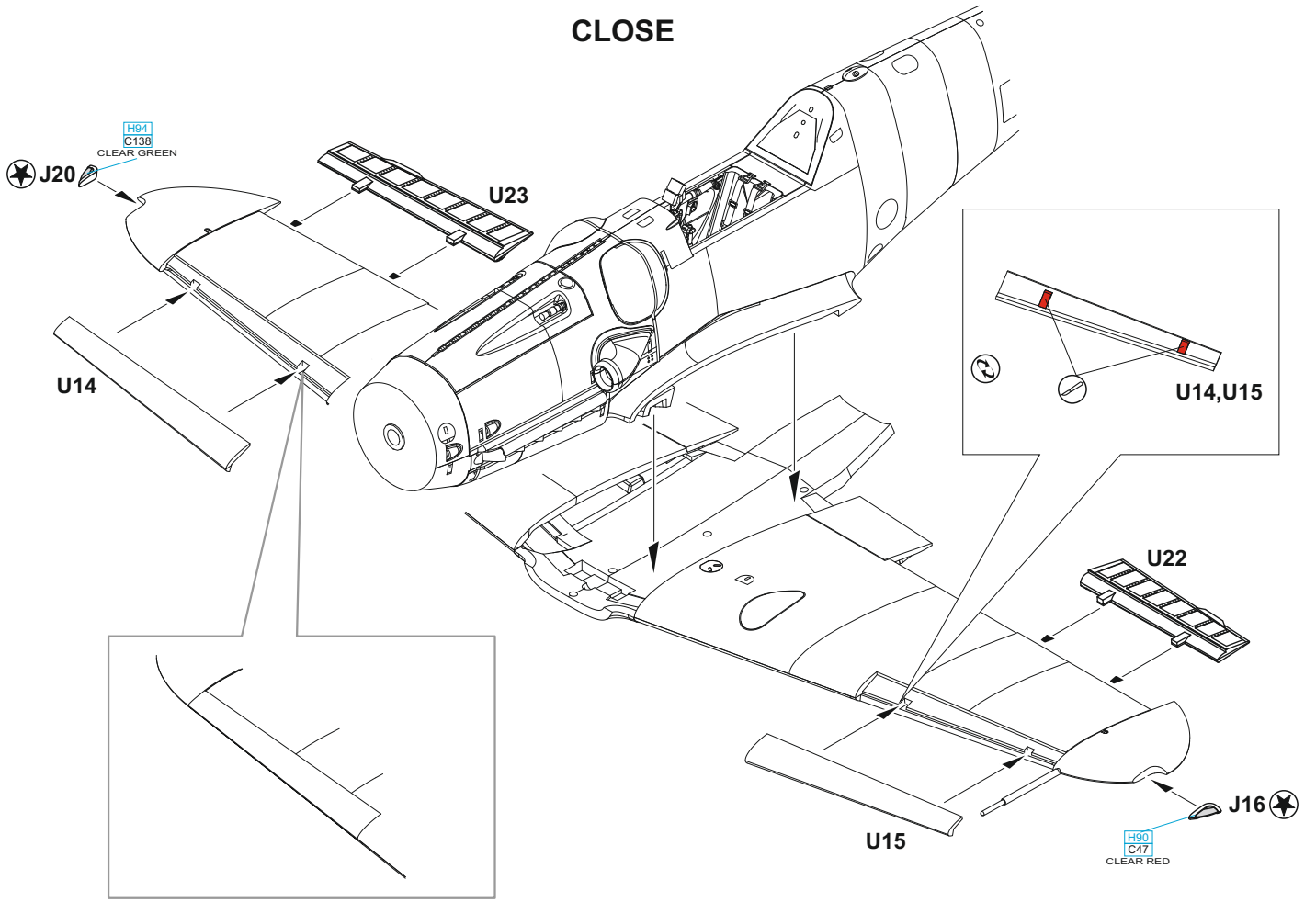
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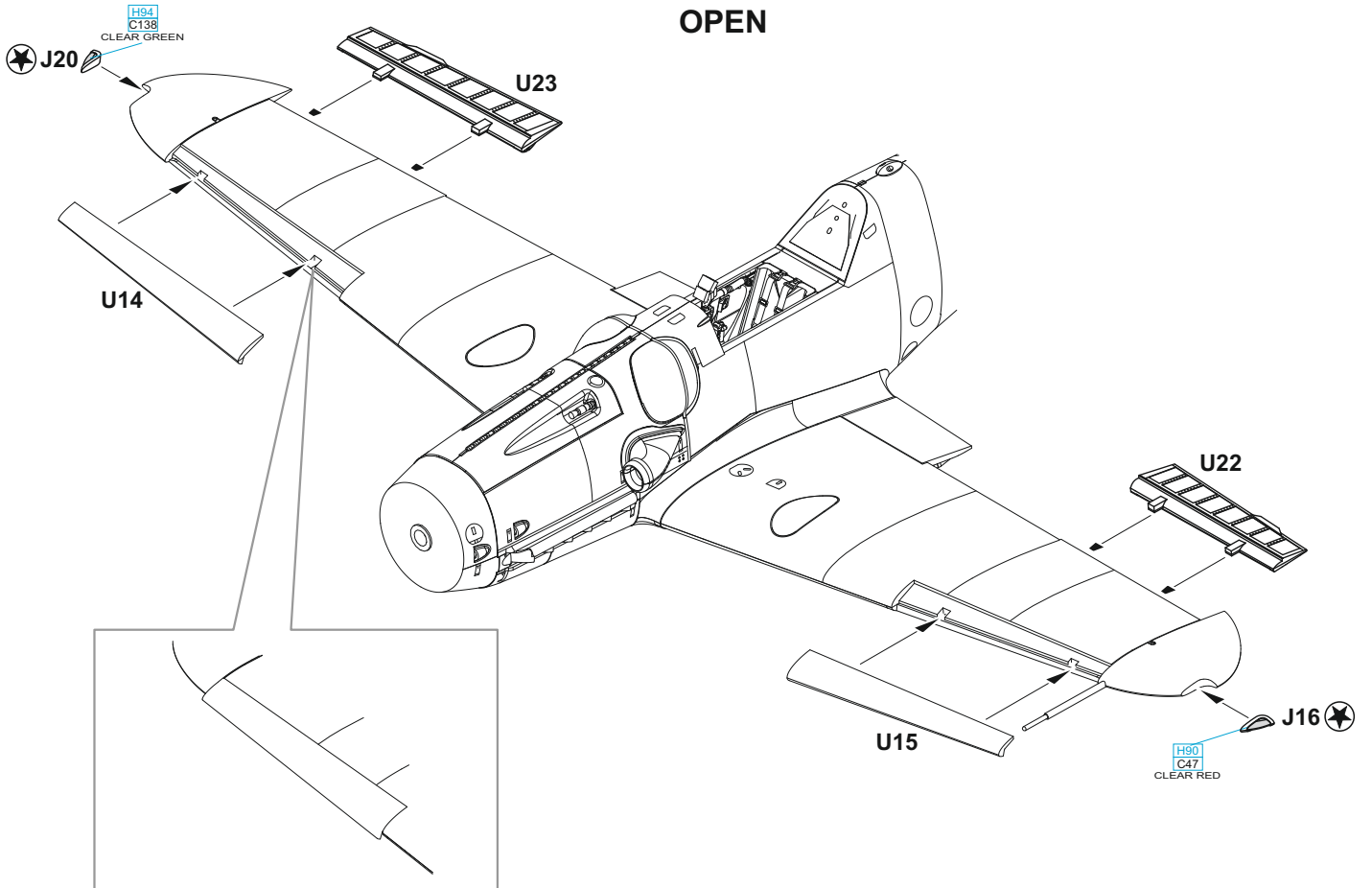




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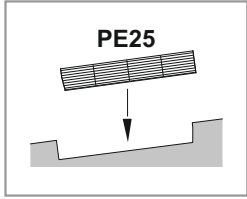


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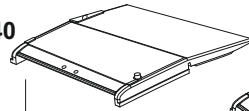


**FRONT VIEW**

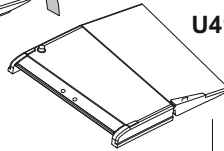
**PE25**



**U40**



**U41**

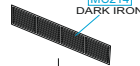


**MC214**  
DARK IRON

**PE23**



**PE25**



**MC214**  
DARK IRON

**PE26**



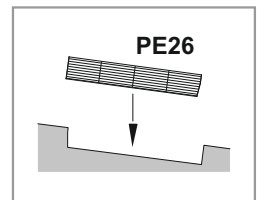
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DARK IRON

**PE24**



**FRONT VIEW**

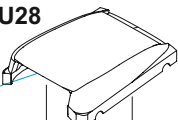
**PE26**



**H70**  
**C60**  
RLM 02  
GRAY

**H70**  
**C60**  
RLM 02  
GRAY

**U28**



**H70**  
**C60**  
RLM 02  
GRAY

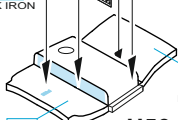
**PE46**



**MC214**  
DARK IRON

**MC214**  
DARK IRON

**PE45**

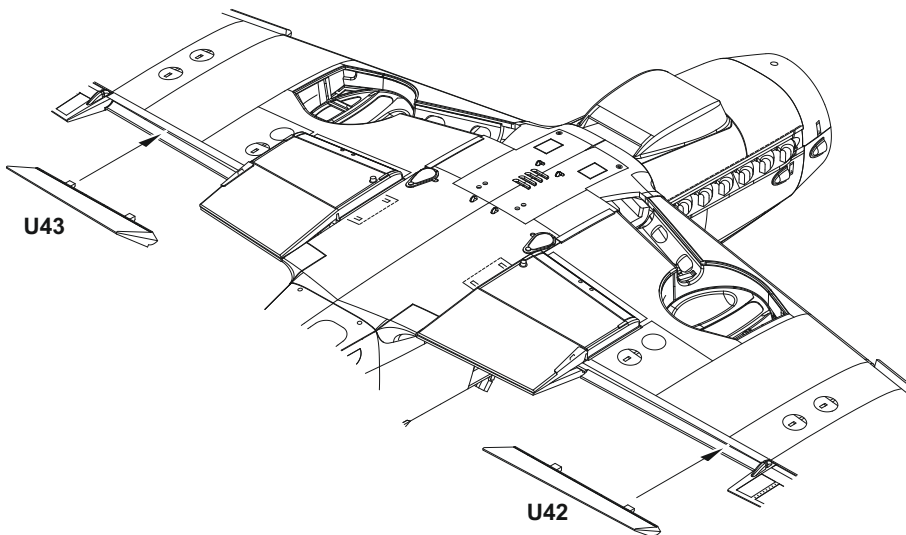


**H70**  
**C60**  
RLM 02  
GRAY

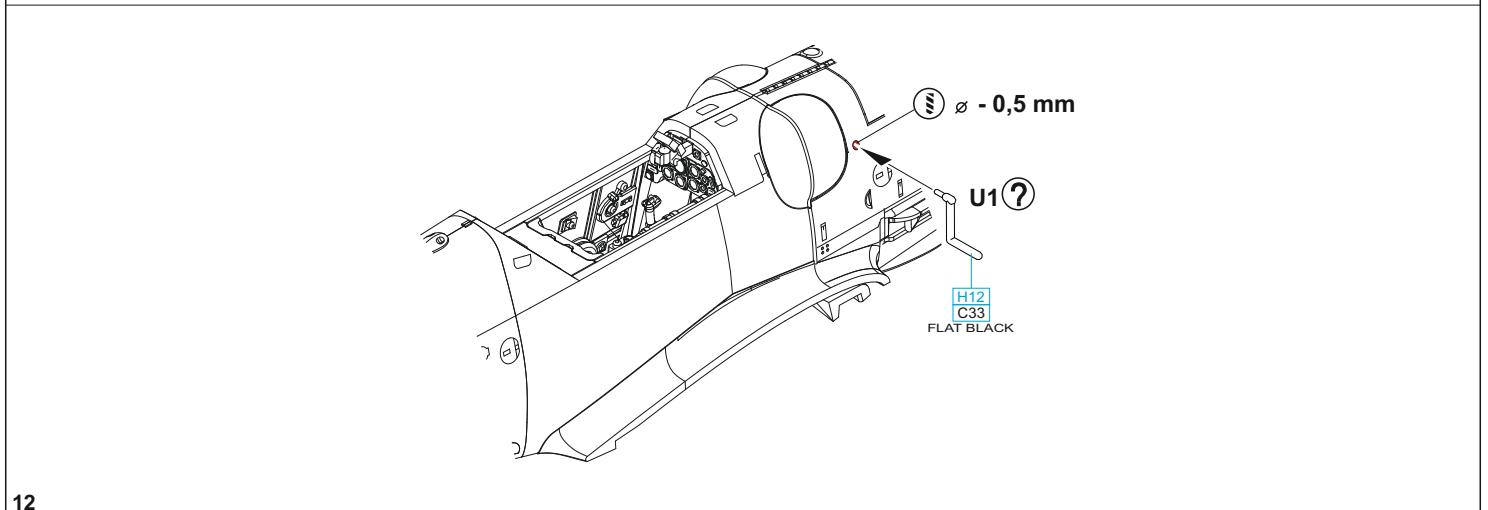
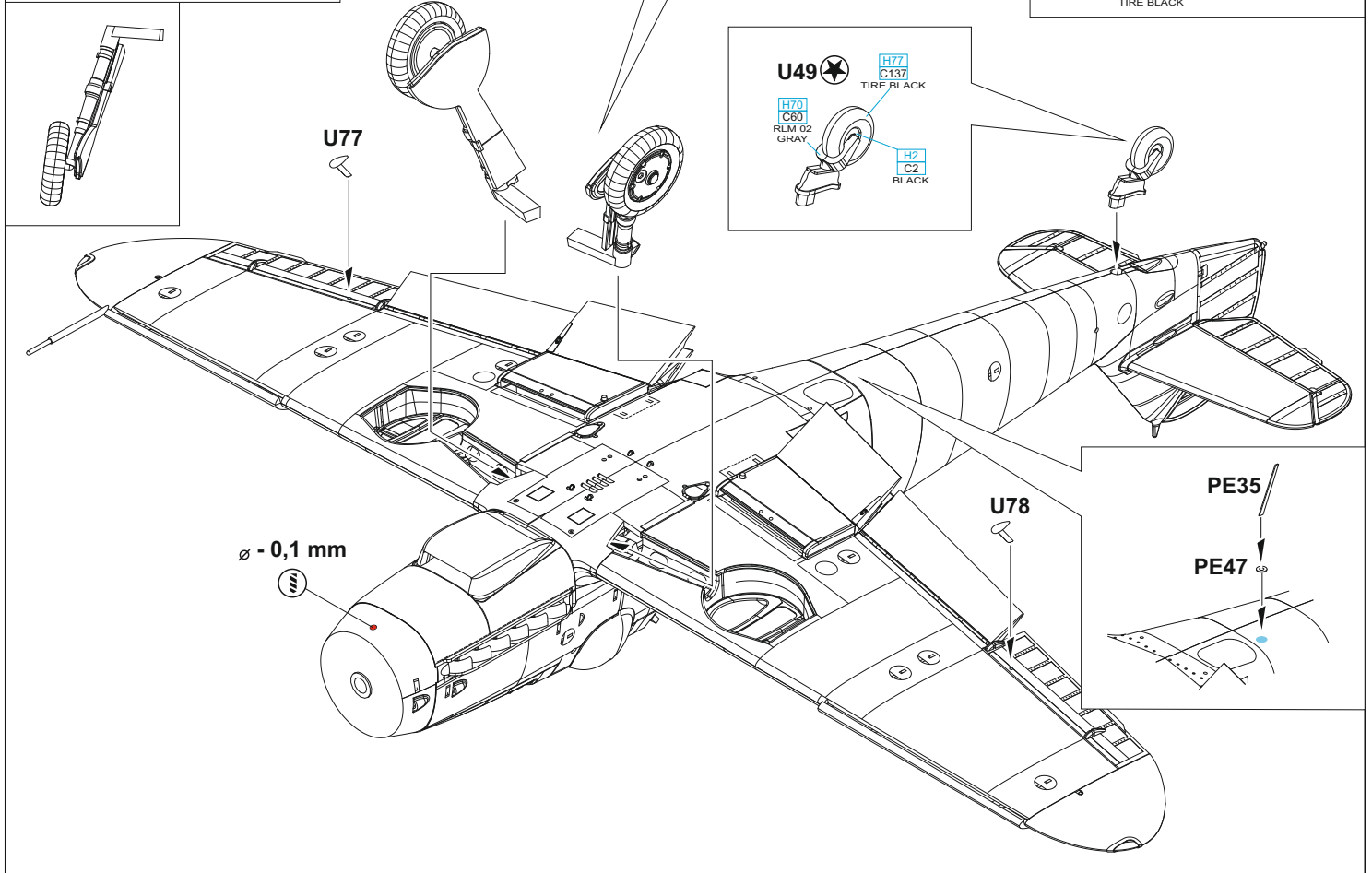
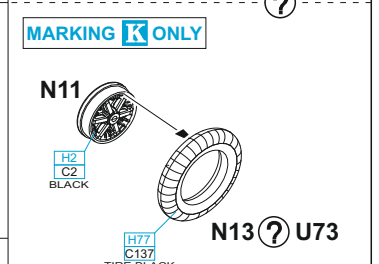
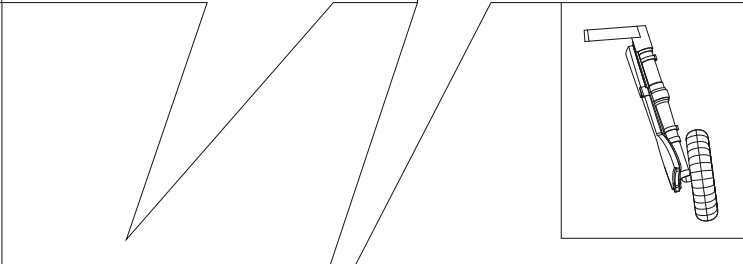
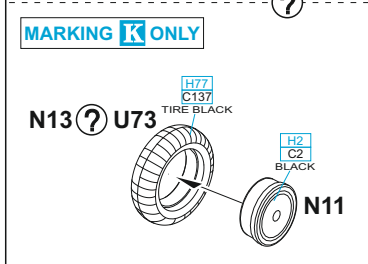
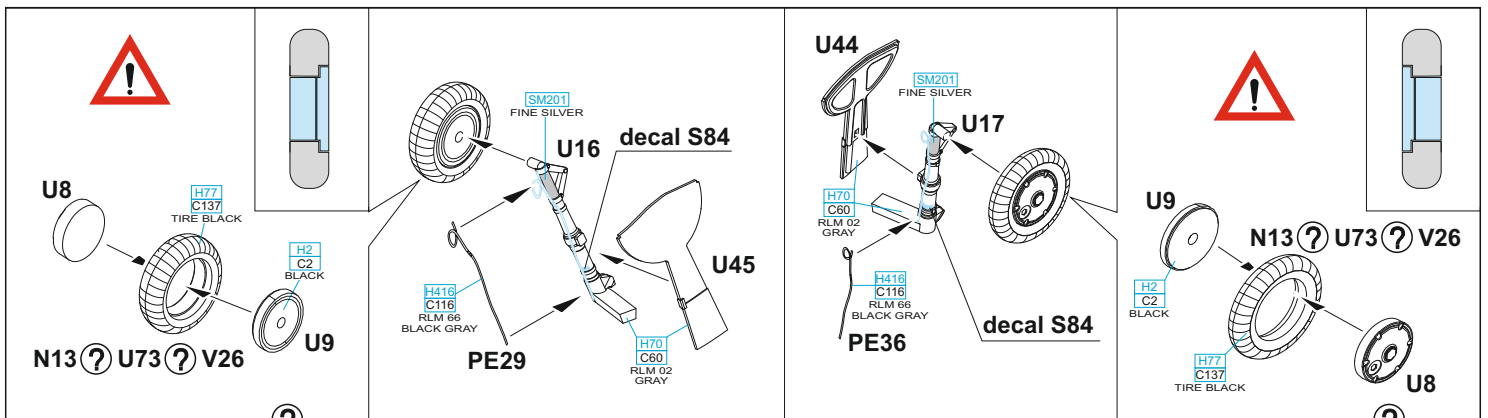
**U56**

**H70**  
**C60**  
RLM 02  
GRAY

**U43**

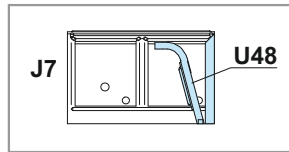
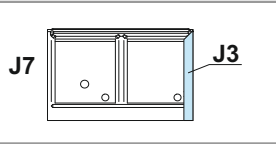
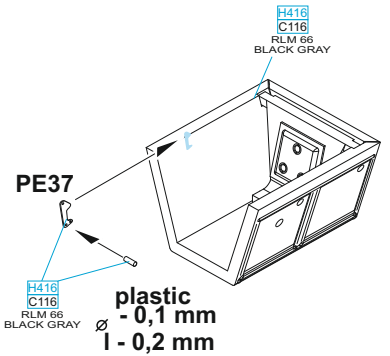
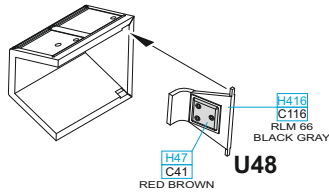
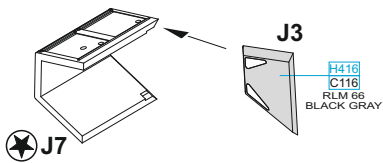


**U42**

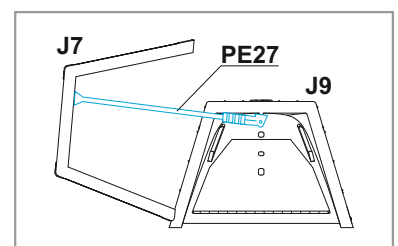
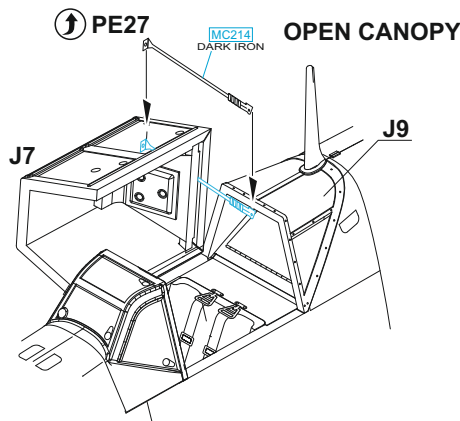
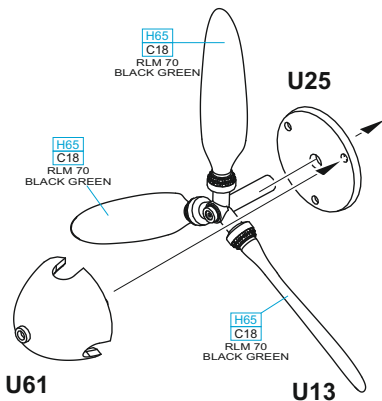
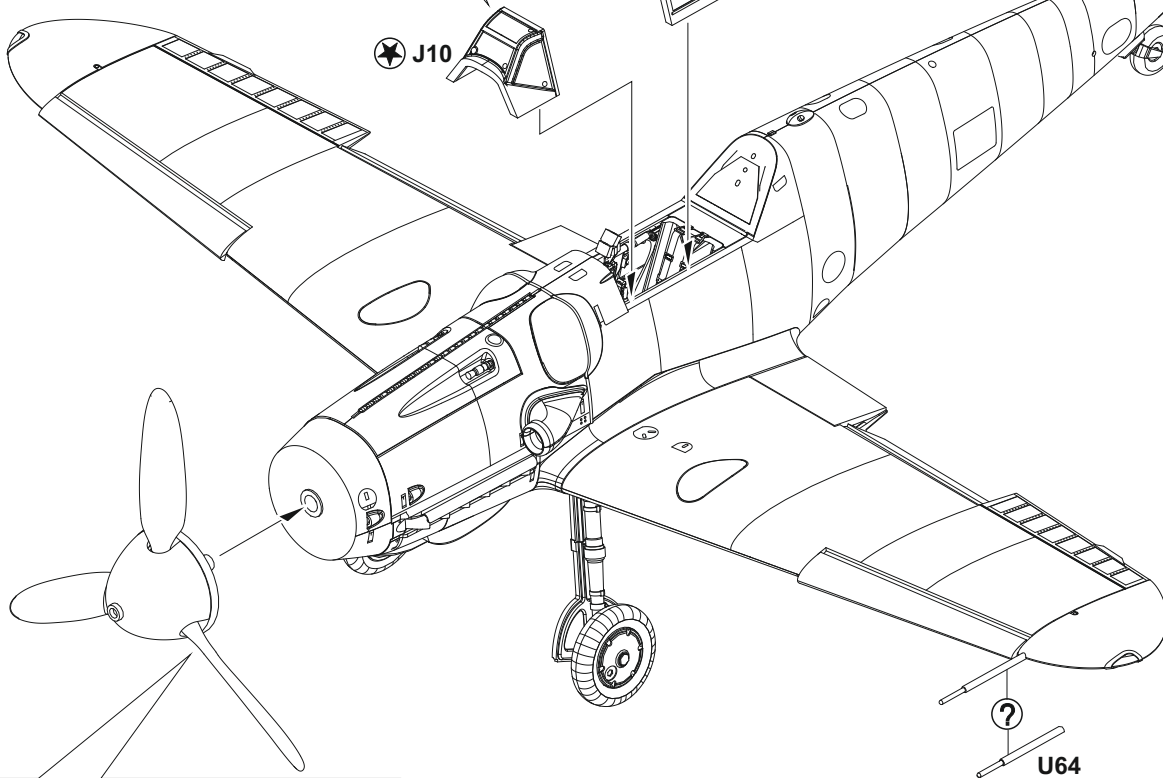
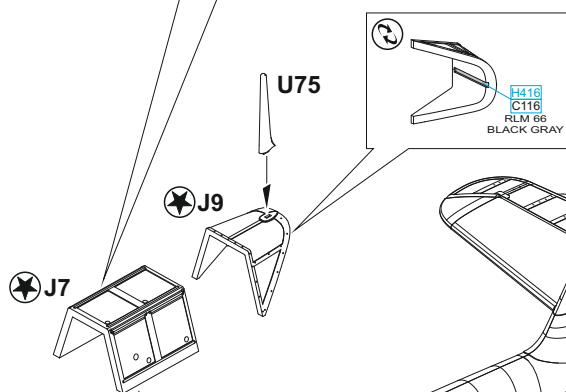
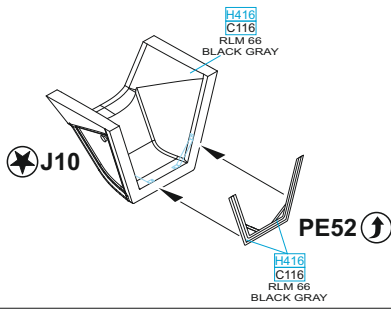


# Bf 109G-5

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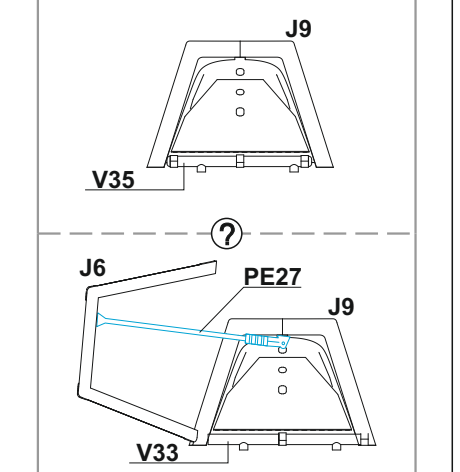
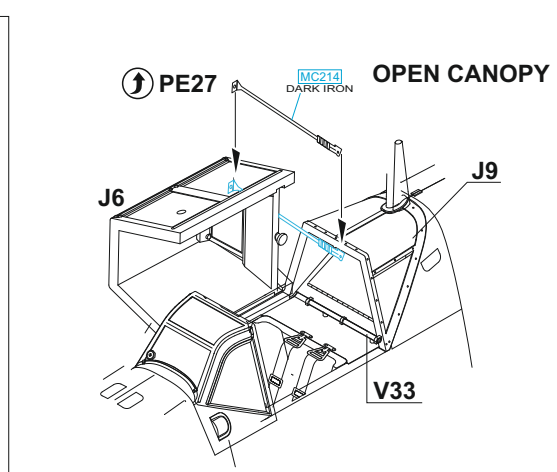
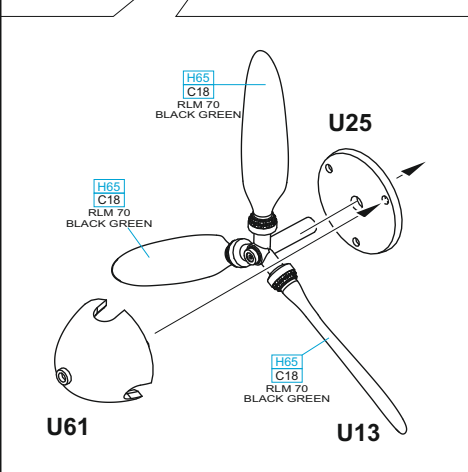
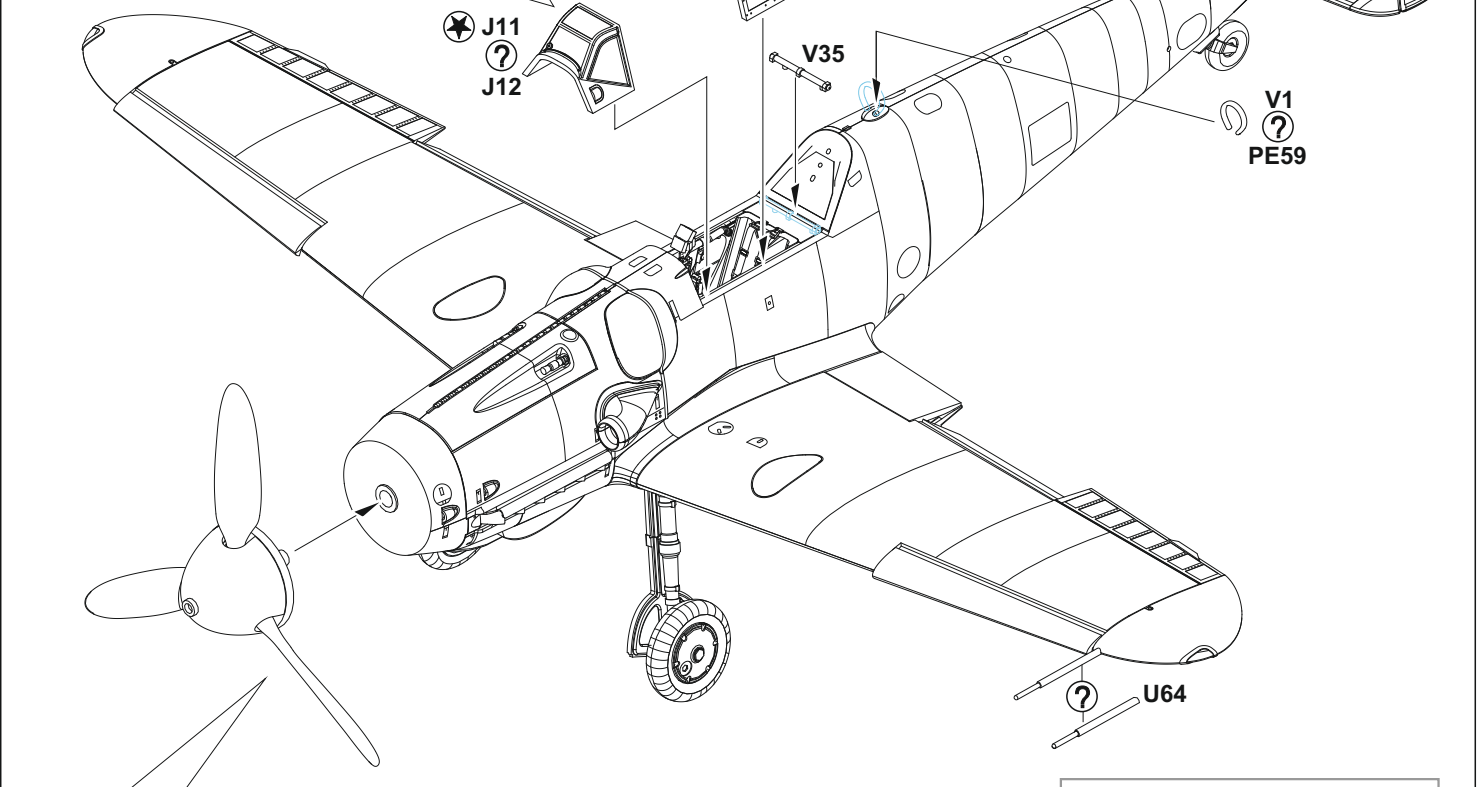
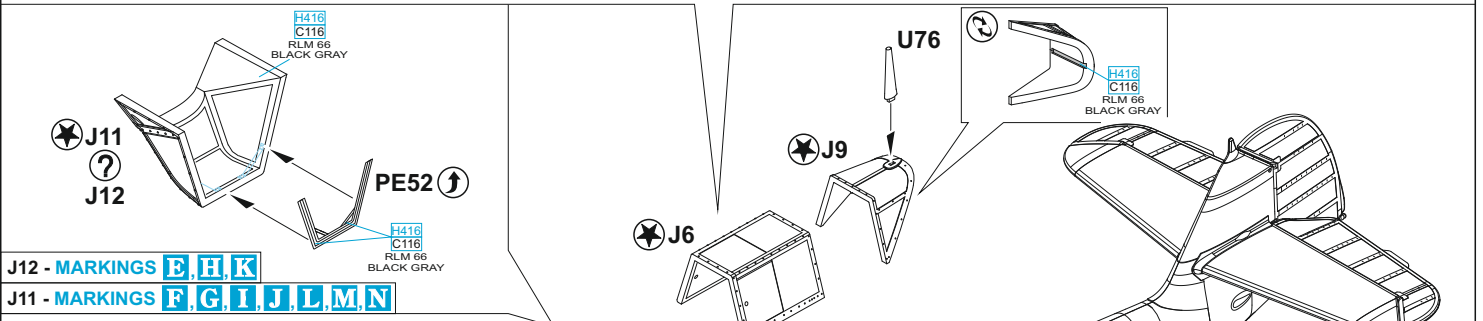
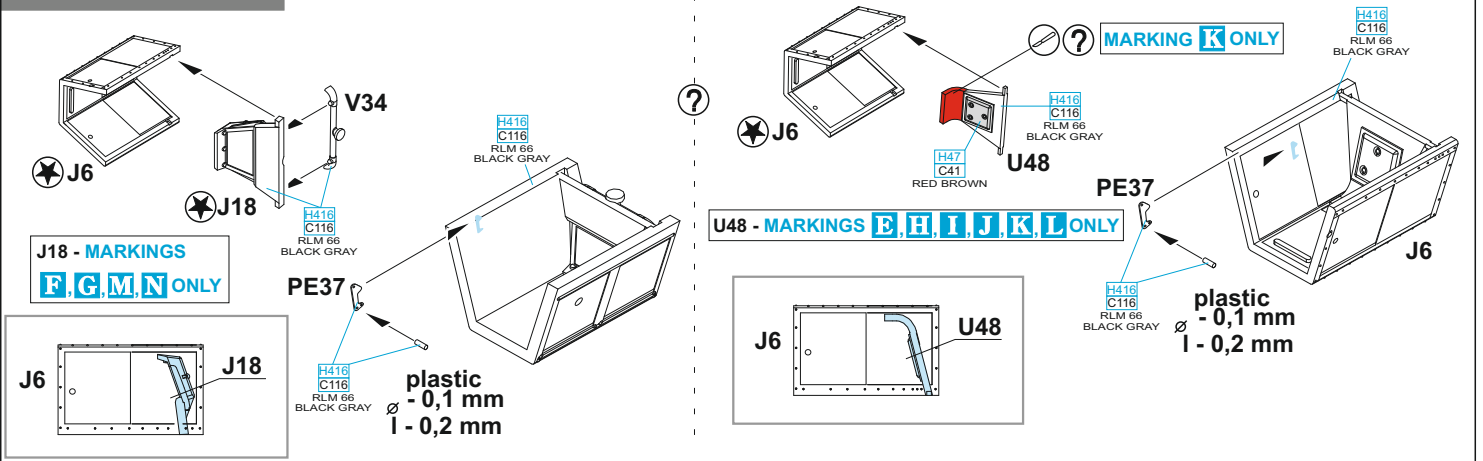


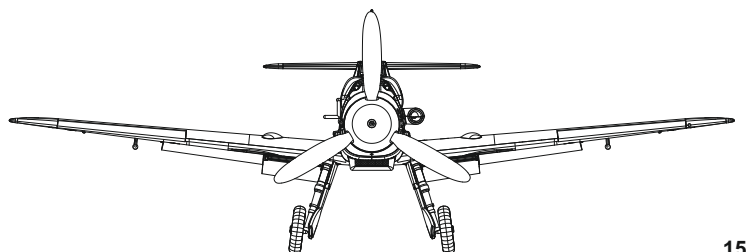
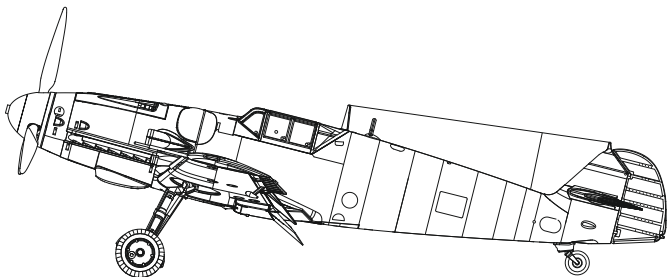
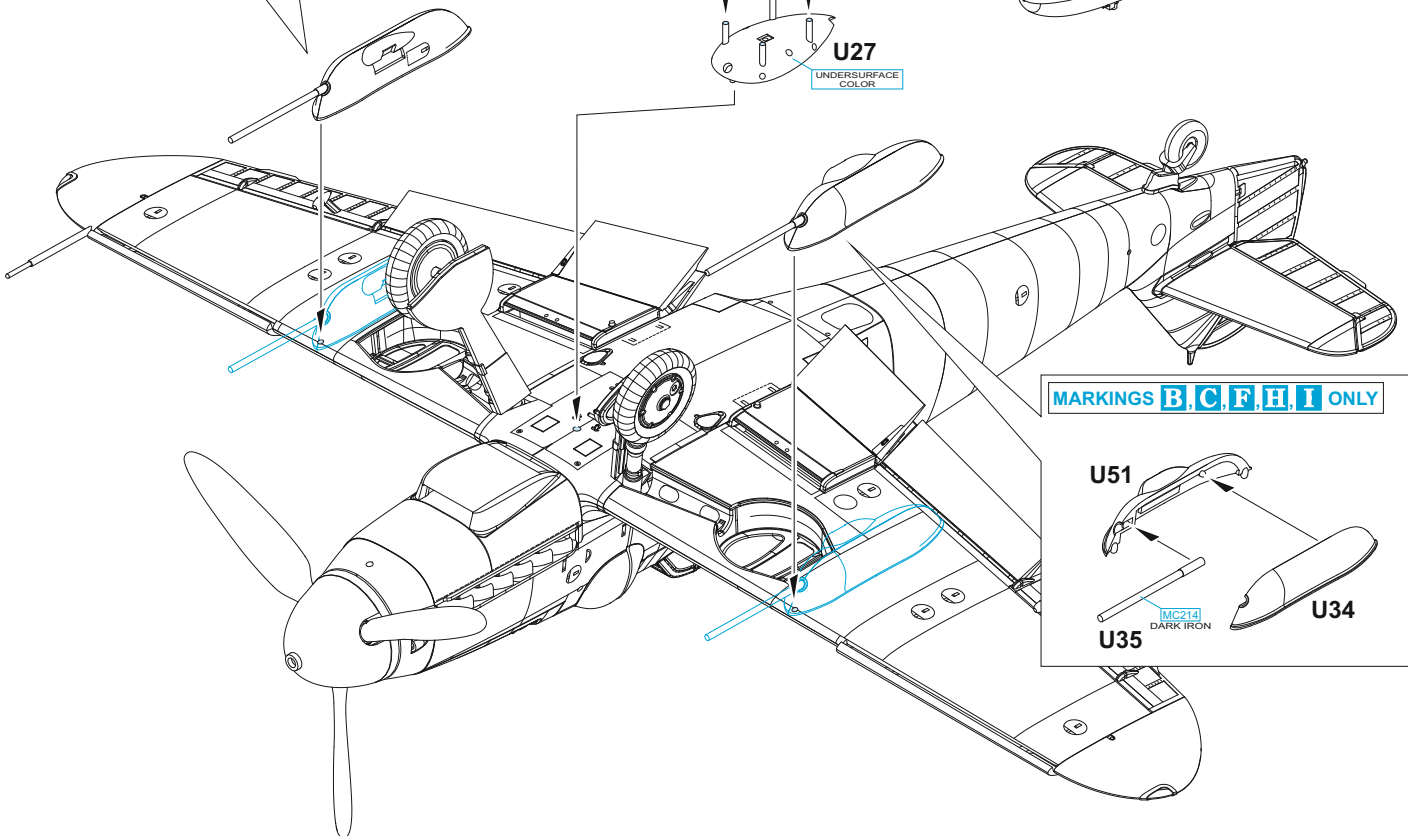
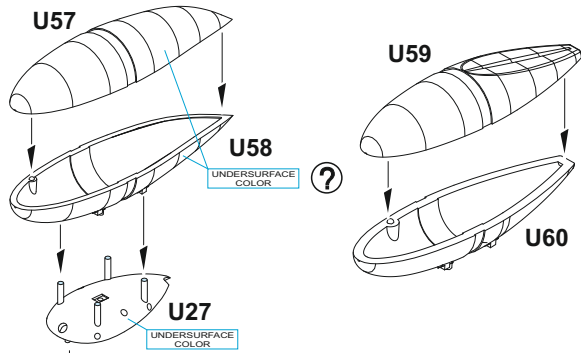
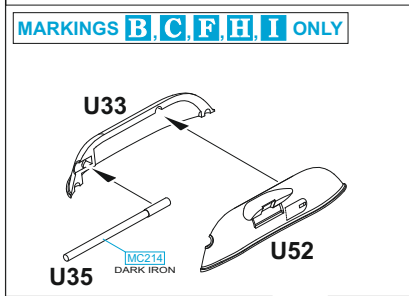
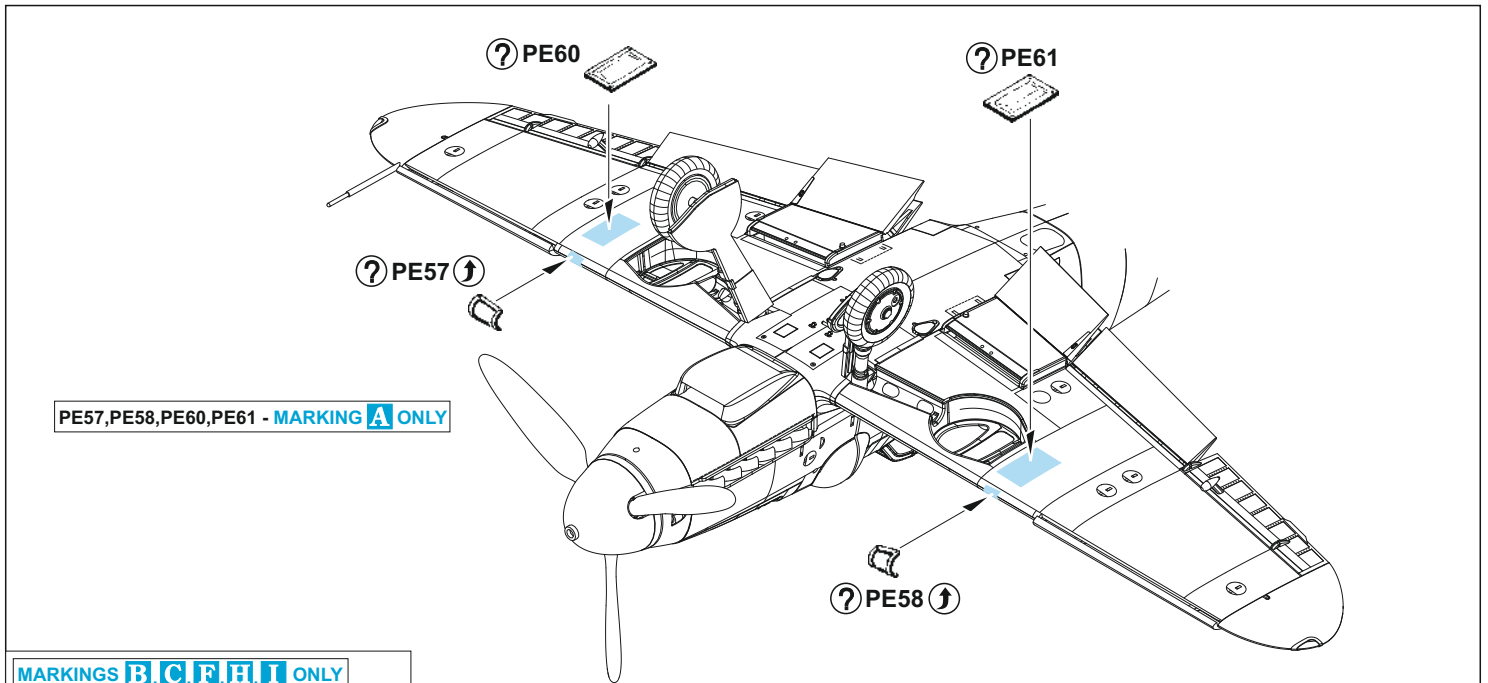
plastic  
- 0,1 mm  
1 - 0,2 mm

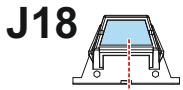
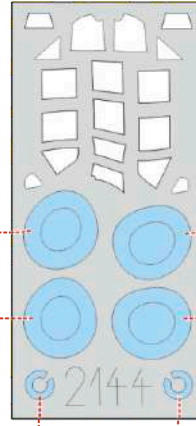
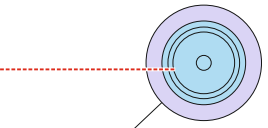
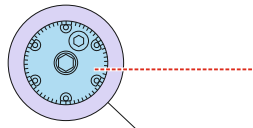
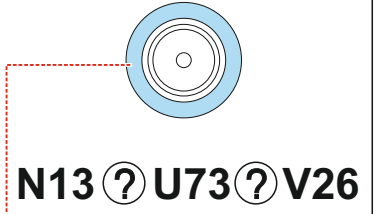
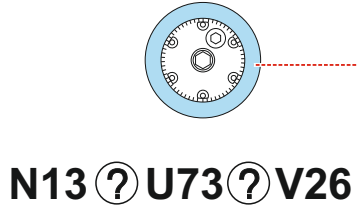
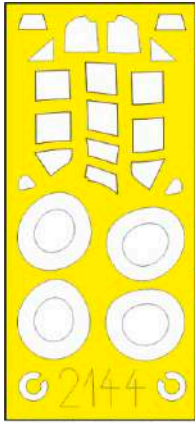


# Bf 109G-6

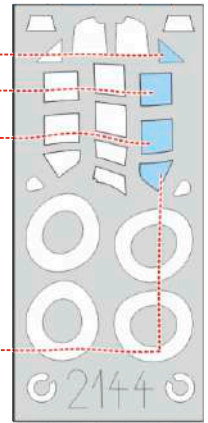
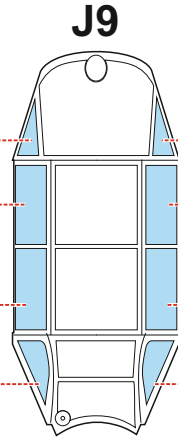
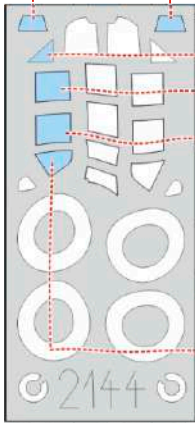
MARKINGS **E, F, G, H, I, J, K, L, M, N**







LIQUID MASK



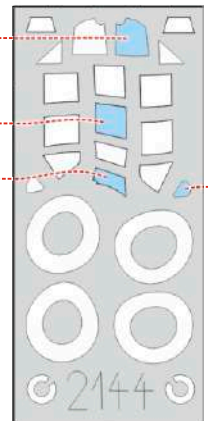
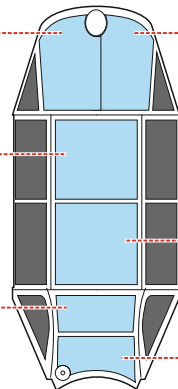
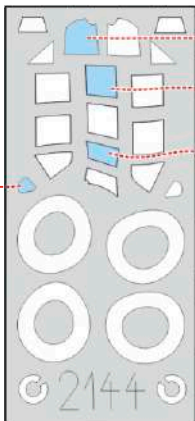
J10 ? J11 ? J12



J20



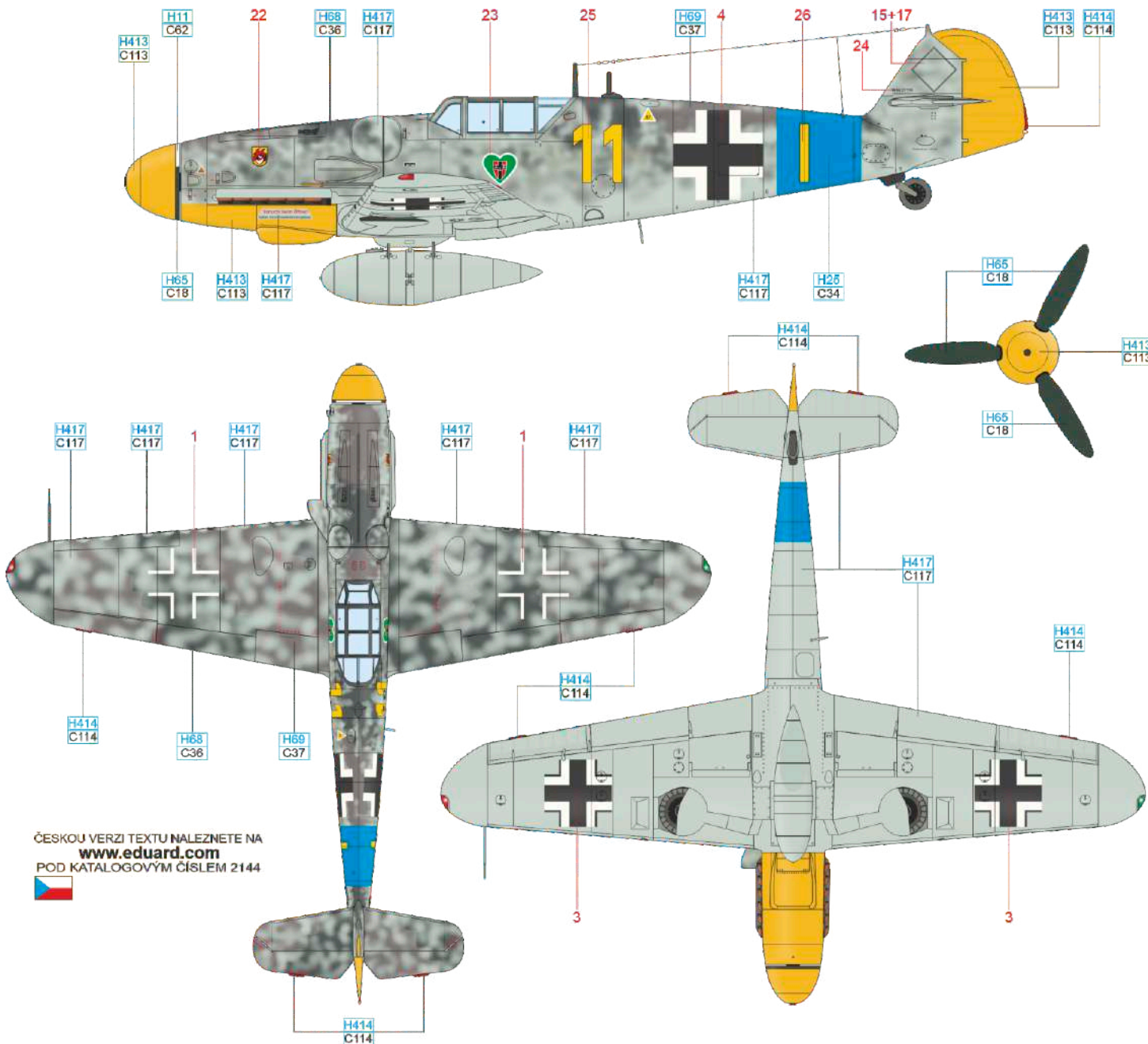
J20





# A Bf 109G-5, WNr. 27119, Uffz. Gerhard Kroll, Ofw. Friedrich Ungar, Fw. Emil Hecker 9./JG 54, Ludwigslust, Germany, February 1944

The aircraft WNr. 27119 was flown by three different pilots of the 9./JG 54. These were Uffz. Gerhard Kroll, Ofw. Friedrich Ungar and Fw. Emil Hecker. The upper surfaces of this aircraft were painted with irregular patches of light color, probably RLM 76. The layout of the original camouflage fields was based on the Erla factory pattern. The wide blue band was marking of JG 54 machines. The III. Gruppe emblem of this Jagdgeschwader is located on the sides of the fuselage under the cockpit. The devil's head, photographically documented only on the left side of the engine cowling, was used by the 9. Staffel. This machine had gun cameras mounted in the leading edge of the wing. She was lost on April 8, 1944, when Uffz. Gerhard Kroll was shot down and wounded near Lüneburg. This aviator did not record any victories during his career but was shot down several times and suffered burns three times.



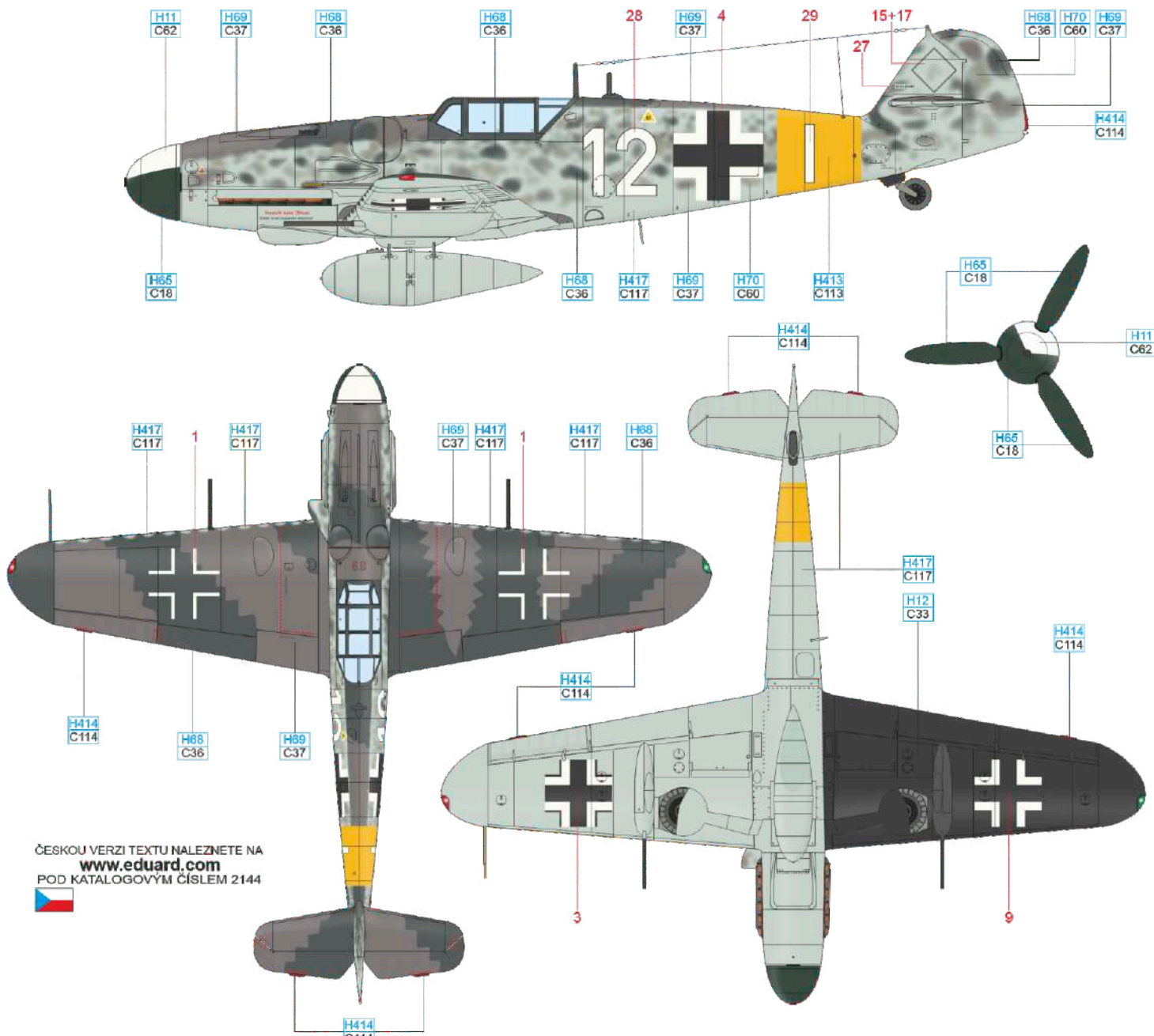
ČESKOU VERZI TEXTU NALEZNETE NA  
**www.eduard.com**  
 POD KATALOGOVÝM ČÍSLEM 2144



FLAT WHITE	H11 C62
SKY BLUE	H25 C34
RLM 23	H414 C114
RLM 04	H413 C113
RLM 76	H417 C117
RLM 75	H69 C37
RLM 74	H68 C36
RLM 70	H65 C18

# B Bf 109G-5, WNr. 26082, Flg. Victor Widmaier, 7./JG 11, Oldenburg, Germany, October 1943

This aircraft belonged to JG 11 but was also flown by members of JG 300 as part of Wilde Sau tactics. Note the black paint on the lower right wing. The camouflage scheme was sprayed on the pattern used on the Bf 109G at the Erla factory in Leipzig. Flg. Victor Widmaier scored his first victory with this aircraft when he shot down a B-17 bomber on October 2, 1943. By the end of 1943, he had destroyed three more bombers of this type and in early January he scored a victory over a P-38. After III./JG 11 was rearmed with Fw 190s in February, Widmaier scored a victory over a B-17 and a P-47 on February 10, but suffered injuries after hit from another P-47 and bailed out of. He landed about 200 meters from the American pilot, who also bailed out by parachute. Widmaier underwent a surgery on the same evening, but after only two weeks he forced his return to the unit. He learned the pilot he had shot down fallen into captivity. It was probably a 20-year-old 2nd Lt. Merrill W. De Merit, Jr. of the 361<sup>st</sup> FG, 356<sup>th</sup> FG, who was on his fourth combat flight. Victor Widmaier died in 2011.



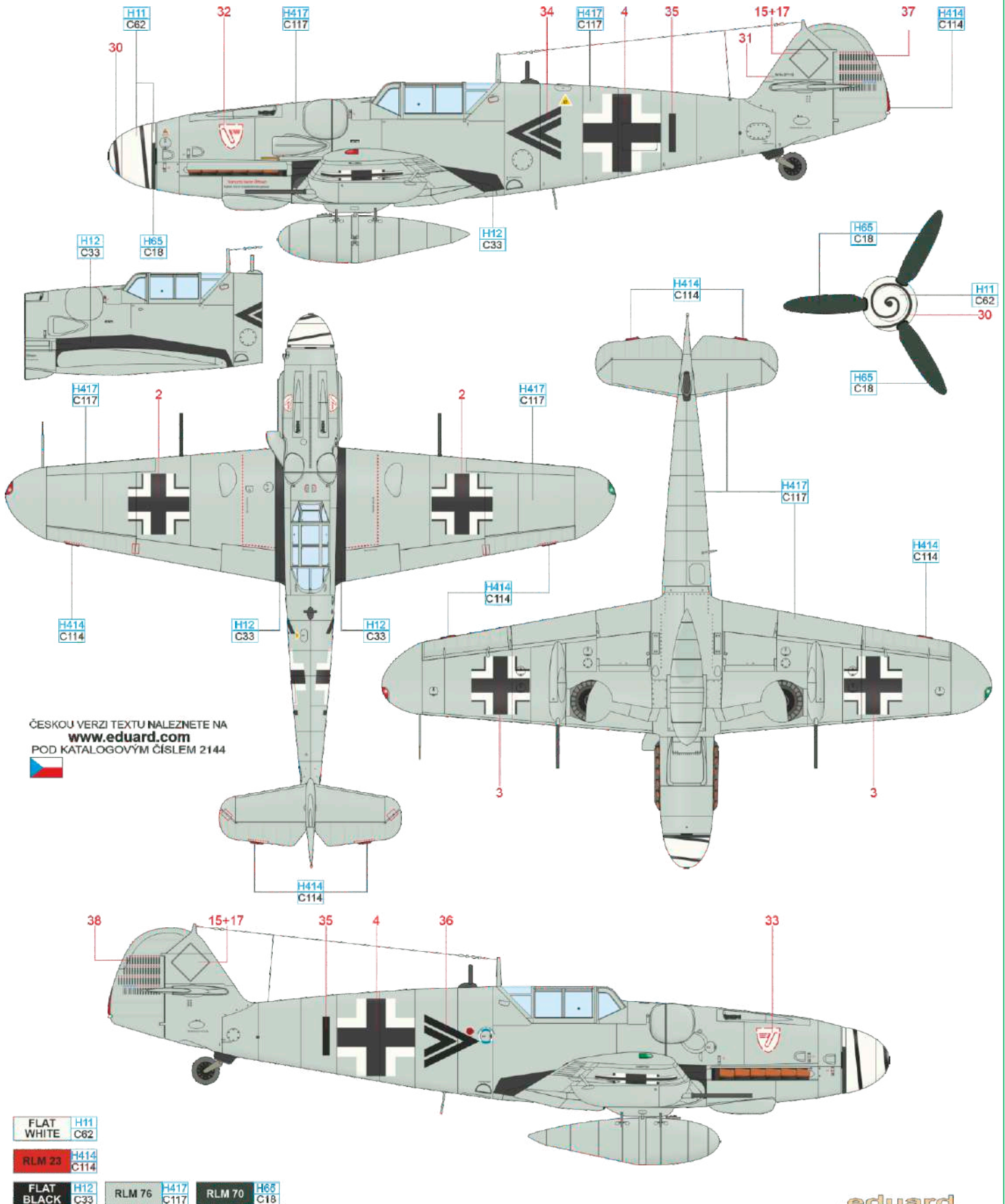
ČESKOU VERZI TEXTU NALEZNETE NA  
[www.eduard.com](http://www.eduard.com)  
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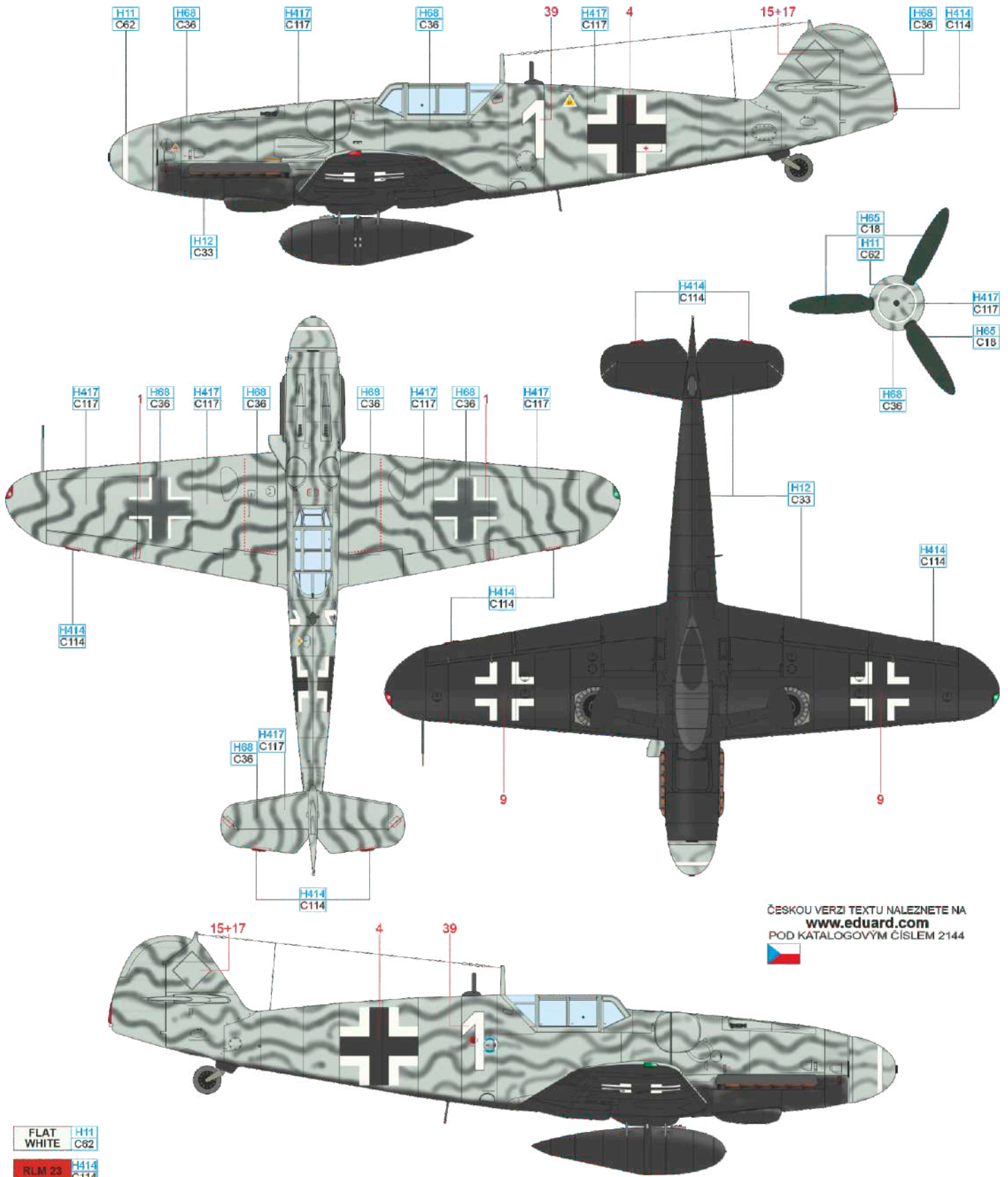
FLAT WHITE	H11 C62
RLM 23	H414 C114
RLM 04	H413 C113

FLAT BLACK	H12 C33	RLM 76	H417 C117	RLM 02	H70 C60	RLM 75	H69 C37	RLM 74	H68 C36	RLM 70	H65 C18
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Walther Dahl was born on March 27, 1916, in Lug. On May 1, 1939, he joined the Luftwaffe and became a fighter pilot. In May 1941, he was transferred to JG 3. Dahl achieved his first victory on June 22, 1941, in the Soviet Union and his last on April 26, 1945. On July 20, 1943, he became commander of III./JG 3 on the Eastern Front. In August his unit moved to Western Europe, at that time armed with Bf 109G-6s. In October his unit also received three G-5 version aircraft and by the end of the year the number had increased to nine. His rudder shows 52 Eastern Front victories instead of the 51 he was credited with. Images of the aircraft were taken sometimes between October 14 and December 19, 1943, during which time it achieved its fourth and fifth victories against American bombers. His total score was 128 kills, and he was awarded the Knight's Cross with Oak Leaves. Bf 109G-5 WNr. 27112 has RLM 76 paint on all surfaces. Maj. Walther Dahl survived the war and died on November 25, 1985.



This unusual camouflage scheme was seen on several JG 300 aircraft. These were deployed for night operational flights. The upper surfaces were painted over with RLM 76 and grey wavy lines. The exact shade used for the waves is unknown, but it was probably RLM 75 or RLM 74. The bottom surfaces were black. Hanns-Werner Gross was apparently shot down in this aircraft (WNr. 110047) over Pfungstadt near Darmstadt on March 18, 1944. His conqueror was probably a Mustang pilot from the 4<sup>th</sup> FG. Gross landed in a treetop on a parachute and was hanging some 15 meters above the ground in a landscape where there were hardly any trees. He lost his shoes during the jump. Soldiers, who at first thought him an enemy, helped him down and villagers found both his shoes. Gross continued to serve in I./JG 300 and in the last months of the war he converted for Me 262 jet.



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FLAT WHITE H11 C62

RLM 23 H414 C114

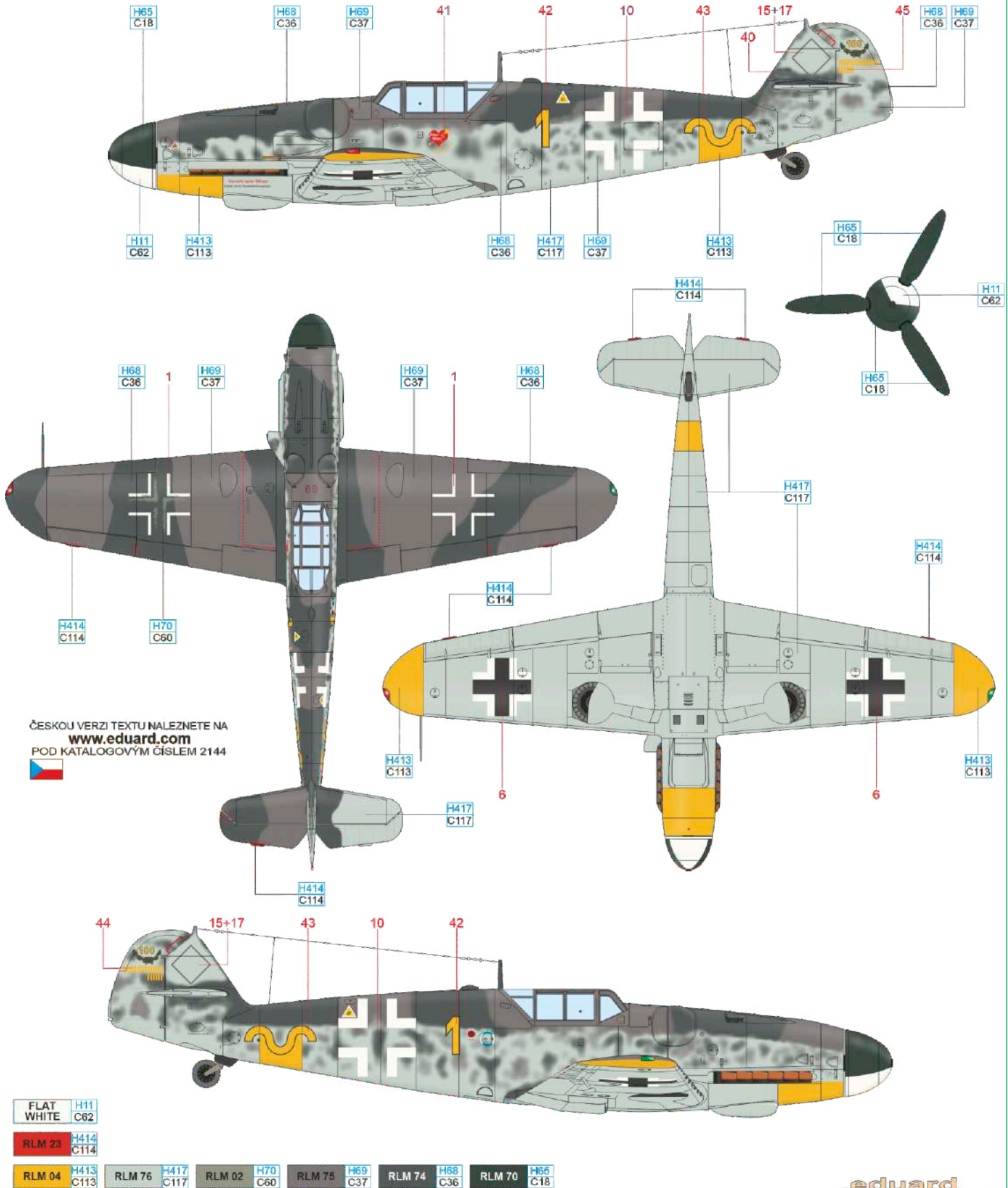
FLAT BLACK H12 C33

RLM 76 H417 C117

RLM 74 H68 C36

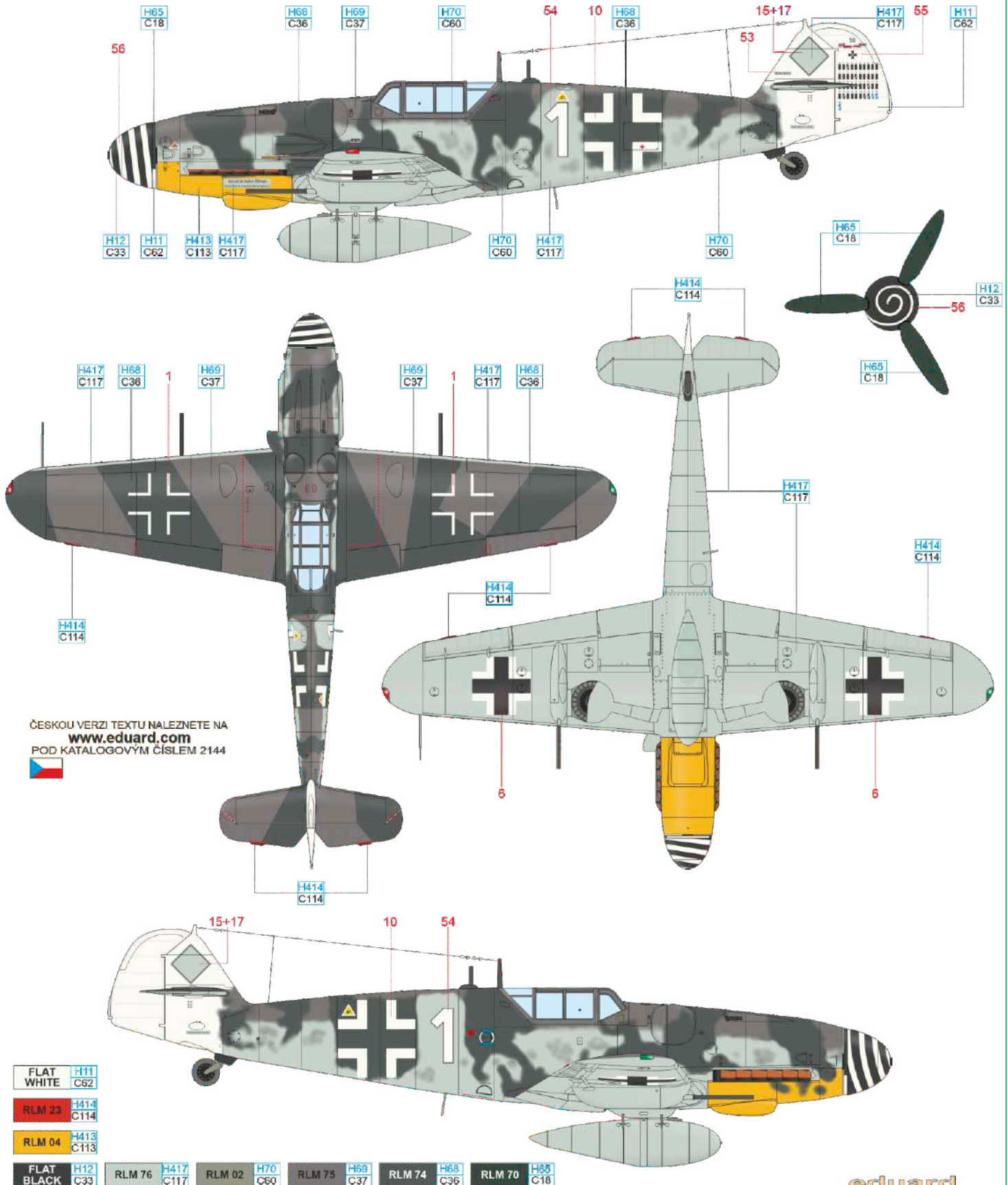
RLM 70 H65 C18

With this aircraft, Erich Hartmann shot down his 121<sup>st</sup> victim on October 2, 1943. The same number of kills was also painted on the aircraft's rudder. The red heart with the inscription Karaya was the emblem of the 9. Staffel of JG 52, which Hartmann commanded at the time. The white inscription Dicker Max in the heart can be translated as "Big Show". The aircraft was built at the Wiener Neustadt Werke factory in a tropical finish and had hatches for the sunshade on the left side of the fuselage under the cockpit. It has been used extensively and had its camouflage repaired several times. Erich Hartmann became the most successful fighter ace not only in the Luftwaffe, but also in the history of aviation. He achieved his first victory on November 5, 1942 and his last victim number 352 was a Yak-9 shot down on May 8, 1945. Hartmann scored all of his victories on the Eastern Front. After the surrender he was captured by American troops, but they handed him over to the Soviets who sentenced him to 25 years of forced labor. After ten years he was repatriated to Germany and participated in the rebirth of the German Air Force. Hartmann became the recipient of the then highest German war decoration when he was awarded the Knight's Cross with Oak Leaves, Swords and Diamonds on August 25, 1944.



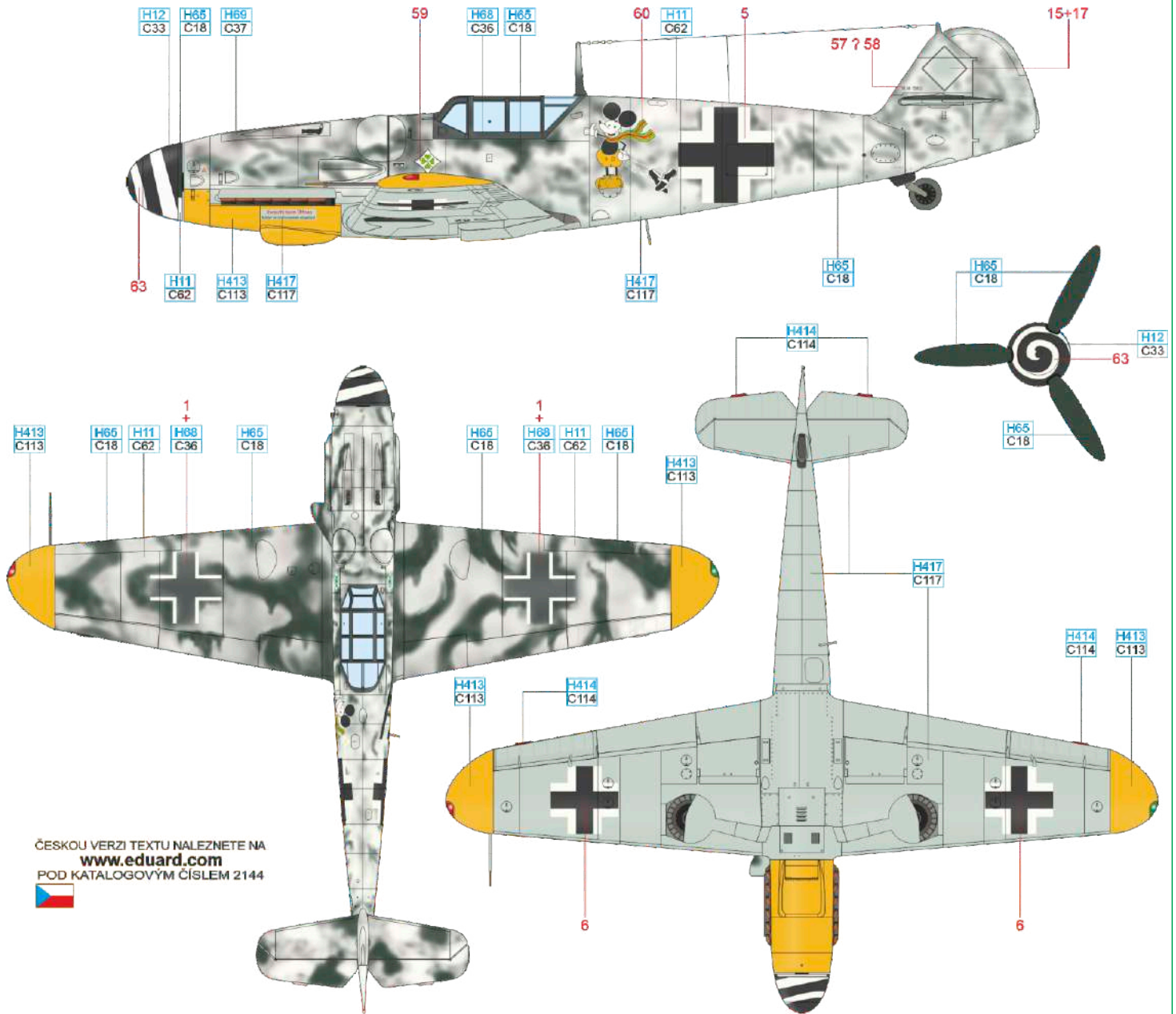
# F Bf 109G-6, WNr. 20272, Oblt. Heinrich Klöpfer, CO of 7./JG 1, Rheine, Germany, November 1943

A native of Peine in Lower Saxony, born on January 9, 1918 and future Knight's Cross winner Heinrich Klöpfer took part in the ranks of JG 77 in the Battle of France and in the Battle of Britain. He achieved one victory during both campaigns. After the start of Operation Barbarossa, as a member of the 11. Staffel of JG 51, he shot down another 80 enemy fighters between June 22, 1941 and November 1943. In early November 1943, he took command of the 7. Staffel JG 1, which was assigned to the Reich Defense Force (Reichsverteidigung). In this unit he shot down five four-engine B-17s, one B-24, and two P-38s. He was killed on November 29, 1943, when he was hit in the cockpit of his Messerschmitt during a dogfight with two P-38s over Vollenhove, the Netherlands. Some tactical formation commanders had the vertical tail surfaces spray-painted white for quicker identification of the leader in combat. The rudder bears the symbols of Klöpfer's victories.



**G** Bf 109G-6, WNr.18502 or 18503, Hptm. Horst Carganico, CO of II./JG 5, Pskov-South, the Soviet Union, early 1944

Horst Carganico was born on September 27, 1917 in Breslau (Wroclaw in Poland nowadays). The first combat unit to which the then twenty-two-year-old Lt. Carganico joined was JG 1 at the beginning of the war. This was followed by a return to Norway on January 1, 1941, where he served as commander of I./JG 77. On September 25, 1941, Carganico was awarded the Knight's Cross after achieving his 27th victory. In March 1942 Carganico's unit was renamed 6./JG 5, but by April 1942 he had already taken command of the entire II. Gruppe. On March 26, 1944, he was appointed commander of I./JG 5, which participated in the fighting against the Allies as part of the Defense of the Reich. On May 27 of that year Major Carganico flew his last sortie. During an attack on a B-17 formation his Bf 109G-5 was badly damaged, hitting a high tension power line while attempting an emergency landing. He did not survive the crash near the French town of Chevry. Carganico's total score stands at sixty kills in 600 missions. The camouflage of his aircraft was painted over with white and RLM 70 on the upper surfaces. Under the cockpit was the marking of II./JG 5 aircraft on both sides. On the left side of the fuselage behind the cockpit was Carganico's personal emblem - Mickey Mouse dragging his boots with dates commemorating the pilot's returns to the unit after emergency landings behind enemy lines. On the right side of the fuselage, there was probably the marking of the Gruppe commander - a double chevron and a horizontal bar.



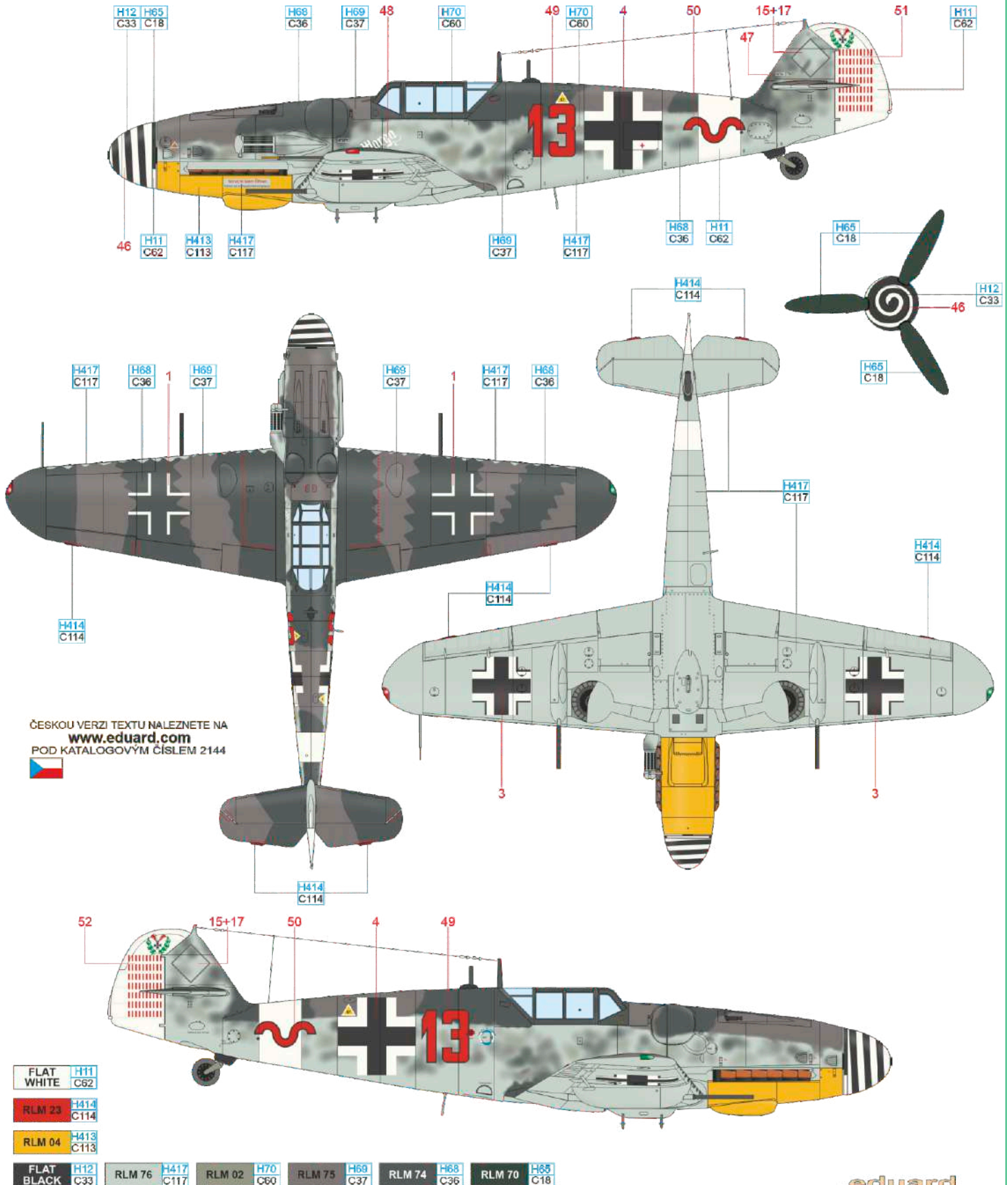
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|------------|---------|--------|-----------|--------|---------|--------|---------|--------|---------|
| FLAT WHITE | H11 C62 | RLM 76 | H417 C117 | RLM 75 | H69 C37 | RLM 74 | H68 C36 | RLM 70 | H85 C18 |
|------------|---------|--------|-----------|--------|---------|--------|---------|--------|---------|

# H Bf 109G-6 Trop, WNr. 27169, Fw. Heinrich Bartels, 11./JG 27, Kalamaki, Greece, November 1943

Austrian Heinrich Bartels was born on July 13, 1918, in Linz. He began his career as a fighter pilot over the English Channel, where as a member of the Erg./JG 26, he shot down two Spitfires in August 1941. He then went on to the ranks of JG 5 in northern Europe, where he scored 47 victories against the Soviet air force. The remainder of his 99 victories came in the ranks of JG 27. Fateful to Bartels was an encounter with American fighters on December 23, 1944. He managed to shoot down one of the Thunderbolts, but he did not return to the base. The wreckage of his aircraft was not found until a quarter of a century later in January 1968. An unused parachute was found in the cockpit, which is now on display at the Deutsches Technikmuseum in Berlin. Bartels' Bf 109G-6 is shown as it was captured in photographs taken on the occasion of scoring his 70<sup>th</sup> kill. The photographs can thus be dated to November 15, 1943. A total of 70 Abschussbalken (victory marks) are painted on the rudder along with the Knight's Cross, which Bartels had received a year earlier, on November 13, 1942. The sawtooth border of camouflage paint on the upper surface of the wing is typical of some of the aircraft produced at the Erla factory in 1943.



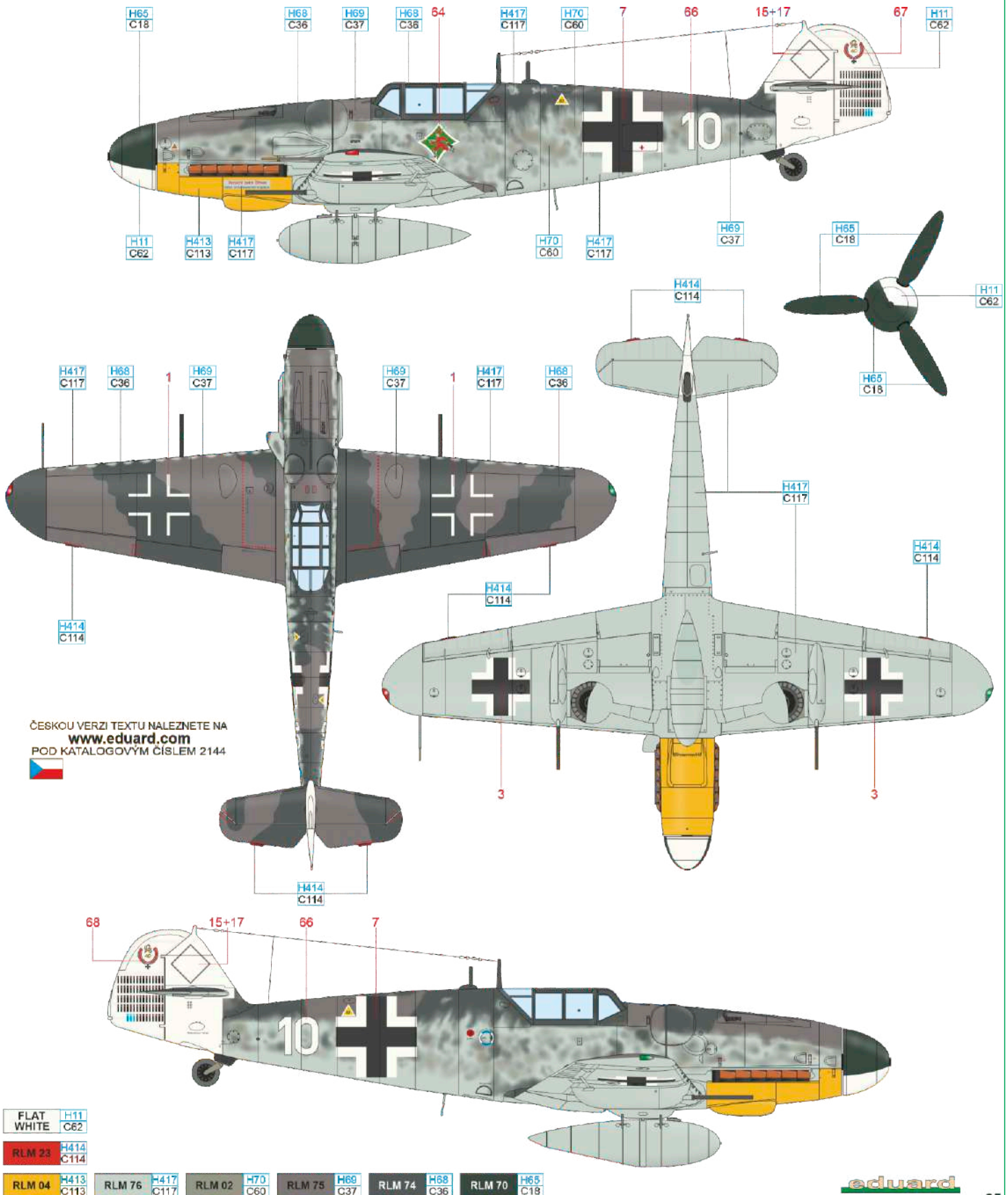
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FLAT WHITE	H11 C62	RLM 23	H414 C114	FLAT BLACK	H12 C33	RLM 76	H417 C117	RLM 02	H70 C60	RLM 75	H69 C37	RLM 74	H68 C36	RLM 70	H65 C18
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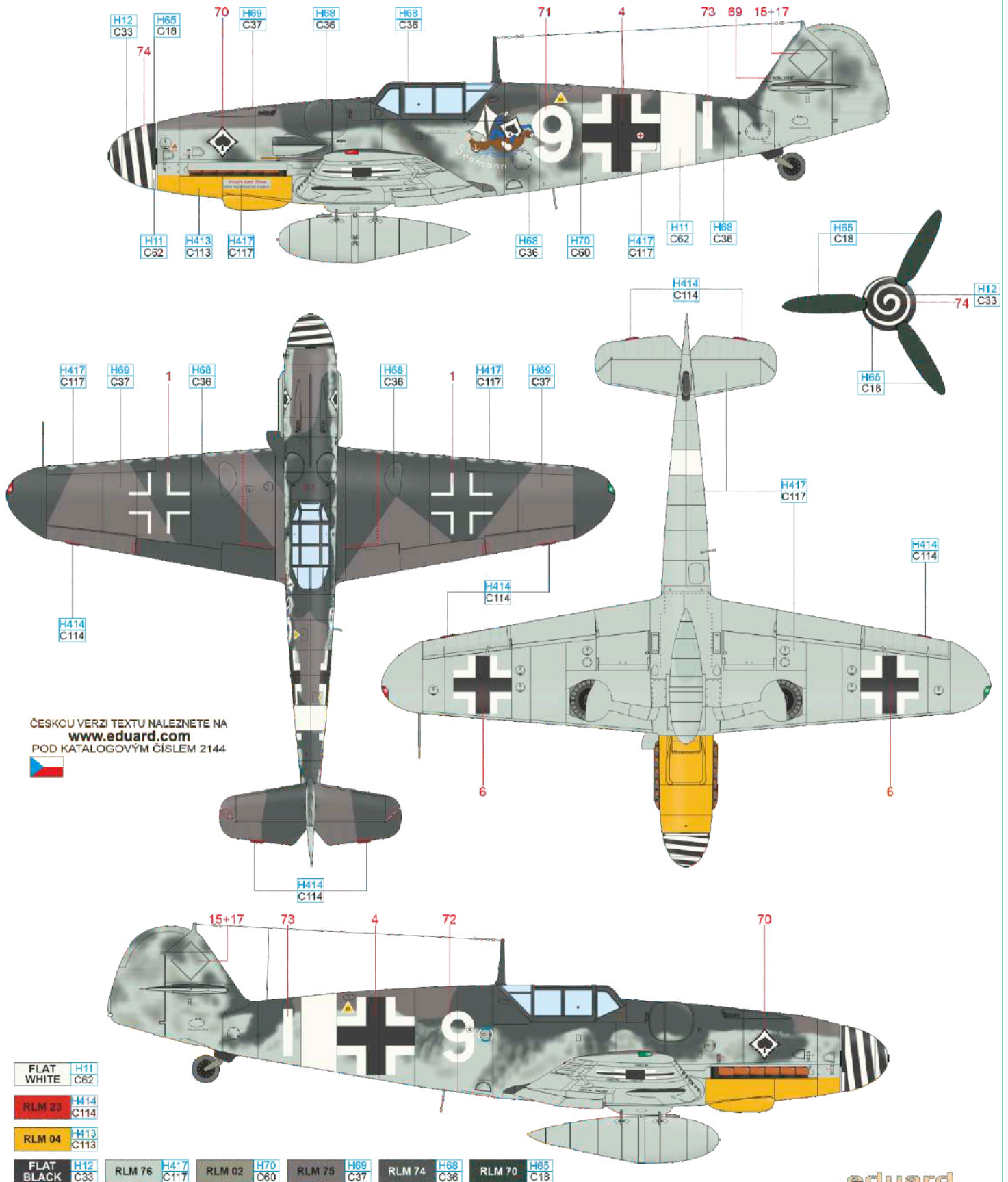


Alfred Grislawski was born on November 2, 1919, in Wanne-Eickel in the Ruhr. Jagdgeschwader 50 was formed on August 15, 1943, by renaming the Jagdgeschwader Süd, which had already been engaged in the pursuit of reconnaissance Mosquitos flying at high altitudes since July 21. However, only its I. Gruppe was formed. It was led by Hermann Graf, who was also the force behind the creation of the Gruppe emblem painted on the left side of the fuselage below the cockpit. The figure of the Roten Jäger (the Red Hunter) symbolized the Luftwaffe football team, in which Graf played together with a number of the German national team at the time, and which was known as die roten Jäger. Alfred Grislawski commanded the 1. Staffel of this unit, as evidenced by the white-colored tail, reserved for the commanders of the combat formations. JG 50 existed for a relatively short period of time, becoming part of I./JG 301 in October 1943. Grislawski then served with JG 1 and JG 53, increasing his score to 133 victories by the end of the war. His achievements earned him the Knight's Cross, which he was awarded on July 1, 1943. On April 11, 1944, he received the Oak Leaves.



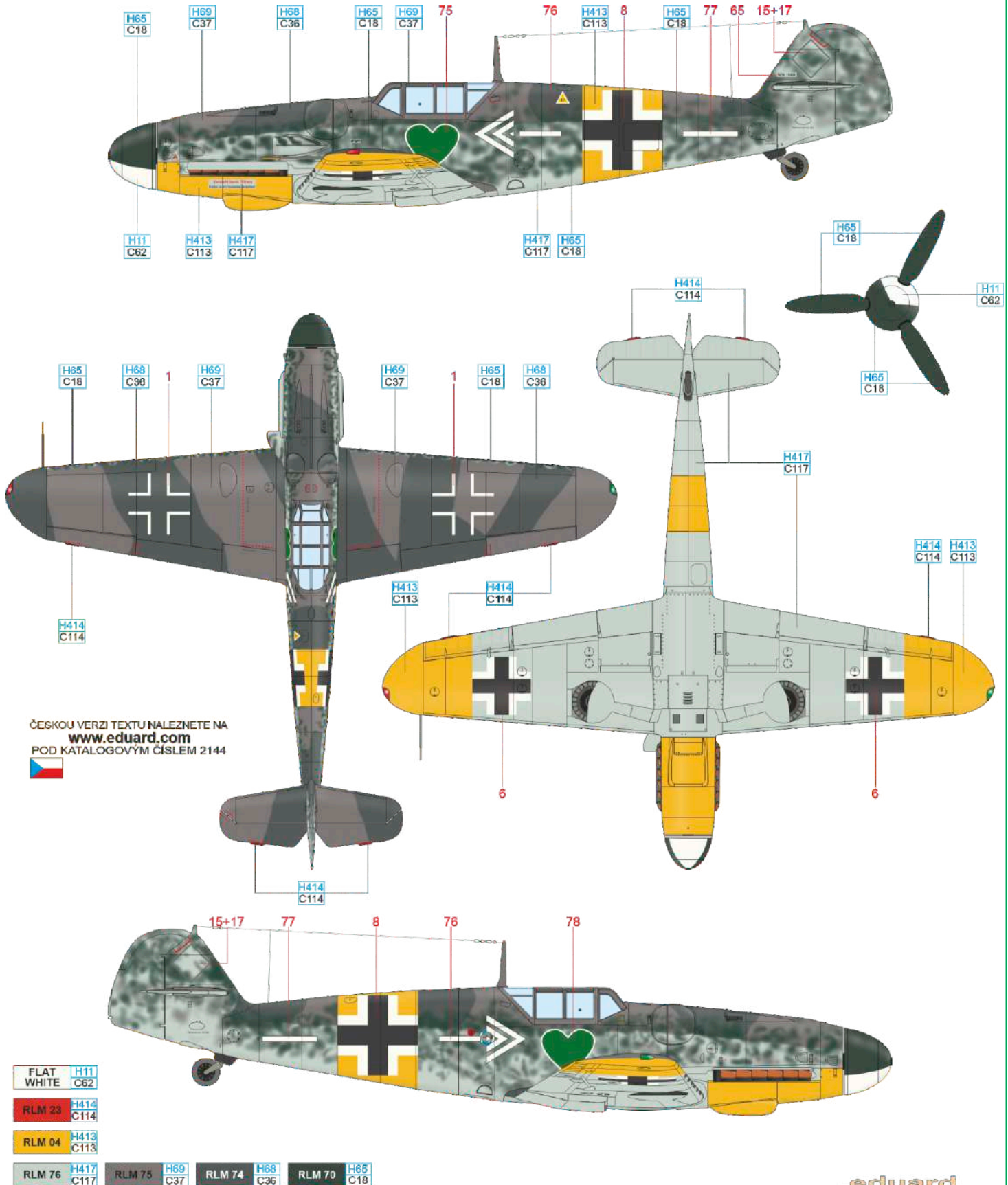
# J Bf 109G-6, WNr. 18107, Uffz. Georg Amon, 7./JG 53, Torazzo, Sicily, June 1943

Georg Amon was born on July 1, 1920. He joined the Luftwaffe in 1941 and began fighter training in January 1942. In September 1942, he was assigned to 7./JG 53, which was then in the African theater. In the summer of 1943, the Luftwaffe was under great pressure from Allied air raids, resulting in the withdrawal from the African theatre of operations and the subsequent capture of Sicily as German forces retreated to Italy. This aircraft was manufactured in April or early May 1943 at the Messerschmitt plant in Regensburg. The camouflage of RLM 74, 75 and 76 colors was complemented by splotches of RLM 02 on the fuselage sides. The color of the limbs of the Spade floating in the boat is not completely confirmed, the blue color is based on the theory that der Seemann (sailor), which was Amon's nickname, wore blue clothing. The aircraft was lost on July 3, 1943, when Uffz. Walter Reinicke was shot down flying it, pilot falling in captivity. In January 1944, Georg Amon began working as a fighter instructor in the south of France. The last day of Georg Amon's wartime career was April 2, 1945. He was shot down by American anti-aircraft half-track fire. He jumped from a low-flying, burning aircraft. With serious burns, he was captured and survived the war. Georg Amon achieved nine victories.

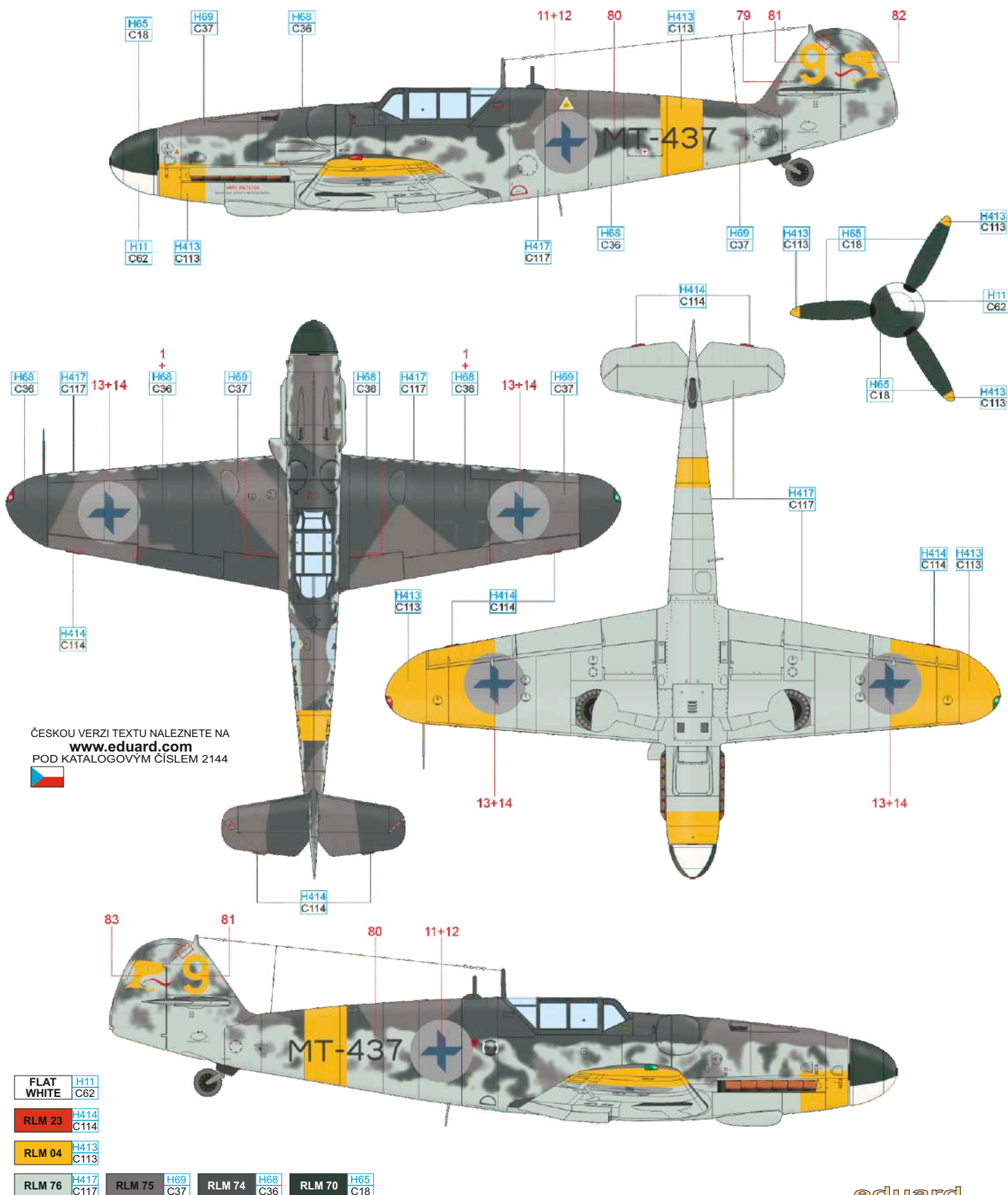


# K Bf 109G-6, WNr. 19456, Oberst Hannes Trautloft, Stab General der Jagdflieger, the Soviet Union, August 1943

This aircraft was originally manufactured as the Bf 109G-4 with the factory code CL+OQ and was assigned to 6./JG 27 in the Mediterranean. After being severely damaged at Trapani on May 10, 1943, it was converted to the G-6 version during an overhaul and accepted by the Stab General der Jagdflieger Adolf Galland. In the summer and autumn of 1943, the plane was used by Oberst Trautloft, the inspector for fighter units on the Eastern Front. The aircraft bore a markings that tied it to JG 54, the unit he was previously commanding. However, Günther Lützow, then inspector for fighter units in the West and MTO, was also photographed in its cockpit. Hannes Trautloft began his fighting career in the Spanish Civil War. There he flew the Bf 109 and was instrumental in developing the tactics for the deployment of this type. He also flew in the Polish campaign and the French campaign. During each conflict he scored at least one victory. On August 25, 1940, he became commander of the newly formed JG 54. Trautloft's overall record totals 58 victories, and he was able to pin the Knight's Cross on July 27, 1941. The aircraft bears the standard RLM 74/75/76 camouflage scheme, with splotches of what was probably RLM 70 green paint on the fuselage.



Leo Ahokas was born on April 25, 1915, in Jaakkima, Karelia, a town annexed by the then Soviet Union in 1940. He received pilot training from 1936–1937, and after mobilization at the start of the Winter War was sent to training unit T-LentoR 2, then in February 1940 to LLv 24, armed with Hurricanes and Brewsters. He was demobilized after the end of the Winter War. He joined LLv 32 for further military service on June 3, 1941, later LLv 24 armed with American Brewsters. In 1943, this unit received Messerschmitts Bf 109G. Ylikersantti Ahokas demobilized on November 10, 1944, and worked as a driver in civilian life. He died on October 25, 1988. During the Continuation War he flew a total of 189 combat sorties and shot down 12 enemy aircraft. The standard-camouflaged Bf 109G-6 from the Messerschmitt factory in Regensburg was supplemented with the yellow recognition markings of the machines from the Eastern Front after being assigned to the Finnish Air Force. On the rudder it bore the new emblem HLeLv 24, the head of a lynx.



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FLAT WHITE H11 C62

RLM 23 H414 C114

RLM 04 H413 C113

RLM 76 H417 C117

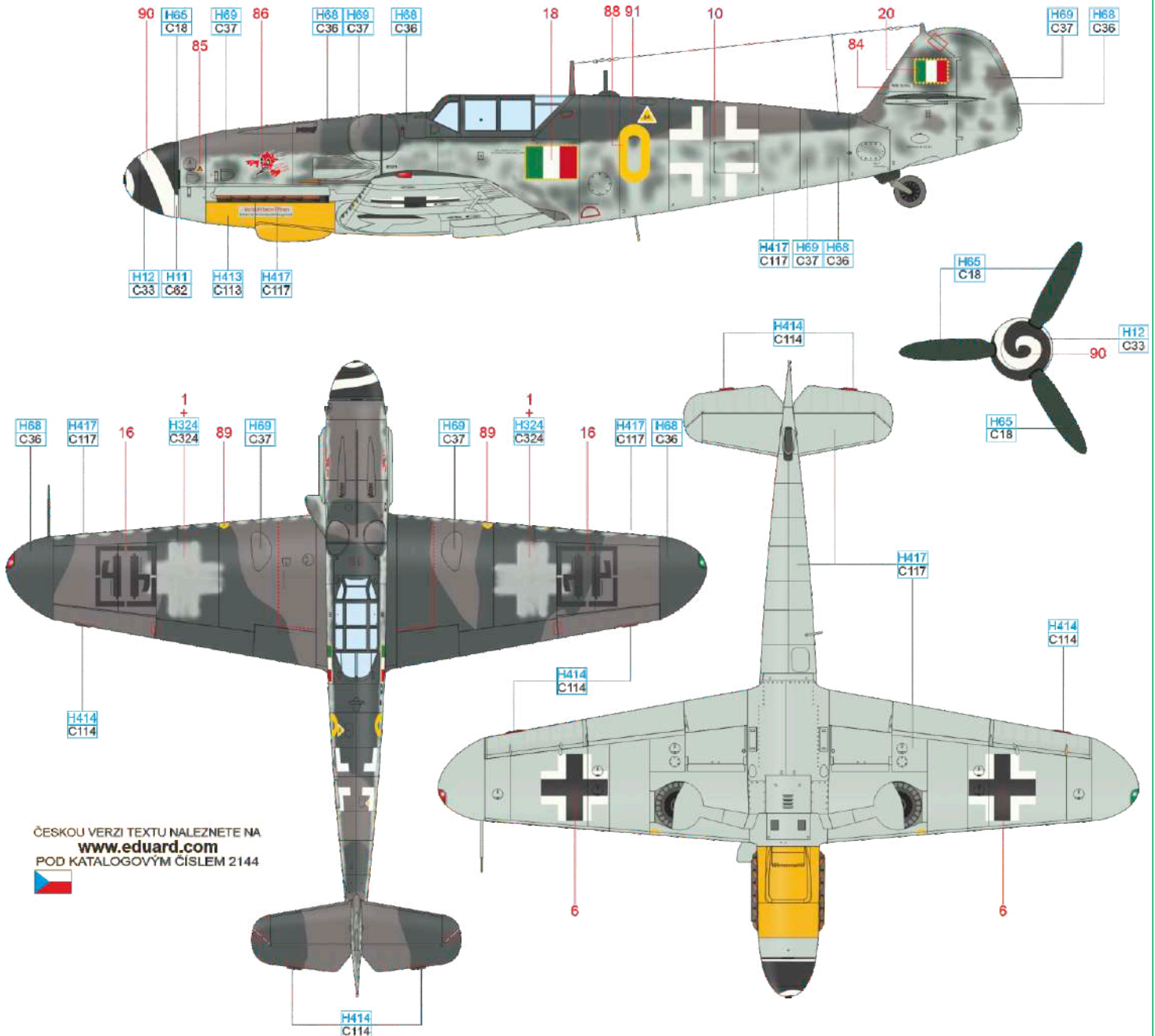
RLM 75 H69 C37

RLM 74 H68 C36

RLM 70 H65 C18

# M Bf 109G-6, WNr. 163162, 2<sup>o</sup> Squadriglia, 2<sup>o</sup> Gruppo Caccia, Verona-Villafranca, Italy, October 1944

The Aeronautica Nazionale Repubblicana (ANR) was the air force possessed by the Italian Socialist Republic, which was formed in late September 1943 in the northern part of Italy and was an ally of the German Third Reich. At first the ANR deployed Italian-built fighters, later receiving German Bf 109Gs. From October 1944, the 109s bore a combination of German insignia and the insignia of the Italian Socialist Republic. On the nose was painted a cartoon of a red devil, emblem of 2<sup>o</sup> Squadriglia, which was called Diavoli Rossi.

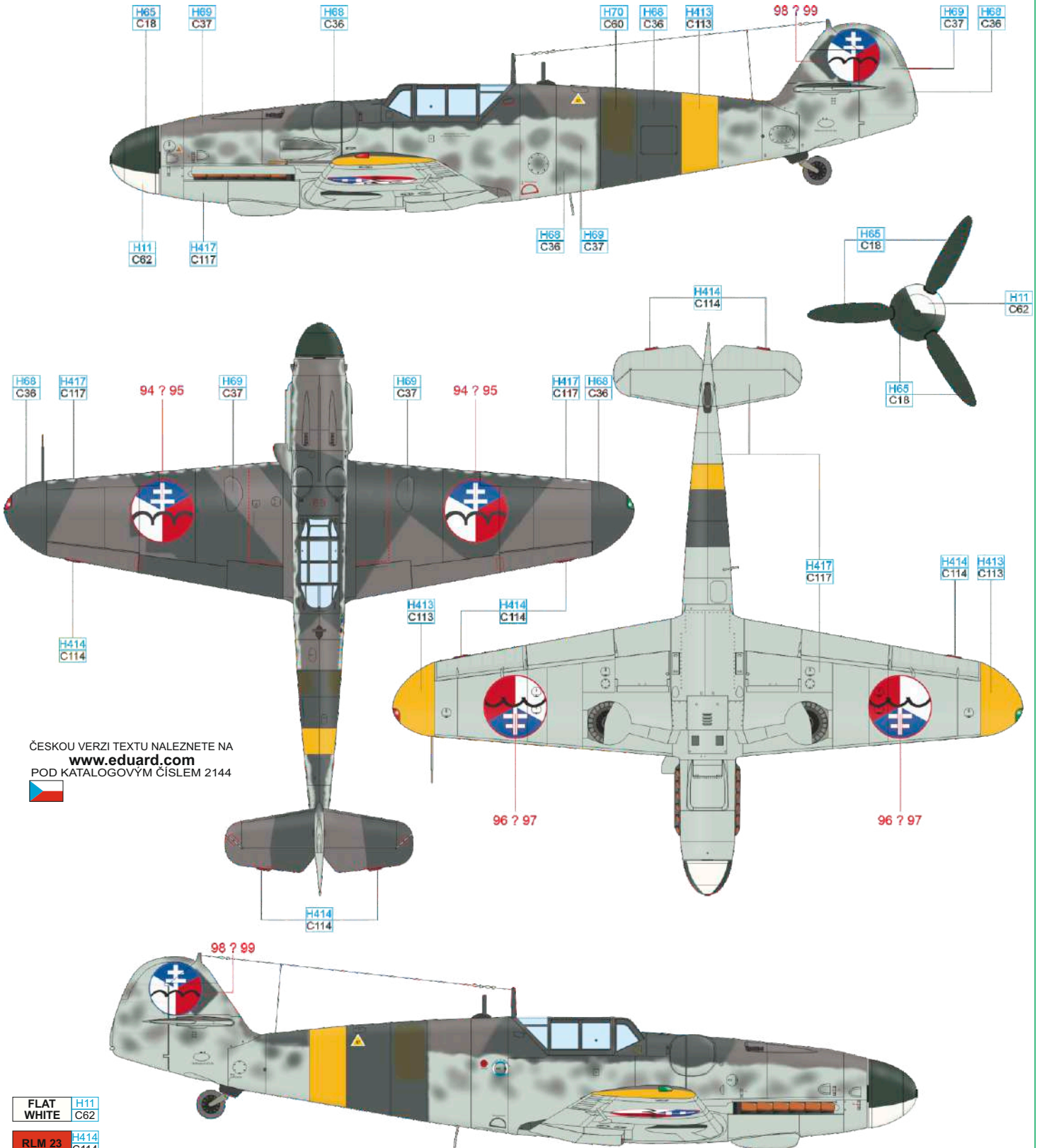


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FLAT WHITE	H11 C62						
RLM 23	H414 C114						
RLM 04	H413 C113	GRAY	H324 C324				
FLAT BLACK	H12 C33	RLM 76	H417 C117	RLM 75	H69 C37	RLM 74	H68 C36
						RLM 70	H65 G18

# N Bf 109G-6, WNr. 161742, rtk. Rudolf Božík, Combined Flight, Slovak National Uprising, Tri Duby airfield, Slovakia, September 1944

Rudolf Božík was born on July 10, 1920, in Hrnčiarovce nad Parnou. In January 1940, he voluntarily enlisted in the Slovak army and completed his basic military and pilot training in Piešťany. In June 1943 he was sent to the Eastern Front. He flew with the Letka 13 (Squadron 13, subordinated to II./JG 52) in Anapa, over Kuban and the Black Sea. On July 26, 1943, he achieved his first two kills. He scored six more by September 26, 1943, on that day he crashed during takeoff and suffered a severe spinal injury. At the end of October 1943, he was transported to Slovakia for treatment. From January 31, 1944, he served at Vajnory airfield, again in Letka 13, which was withdrawn from the Eastern Front to defend Bratislava from American air raids. On June 26, 1944, he damaged one B-17, but in dogfights with American escorts, Letka 13 was decimated. Only four Bf 109G-6s could be used for the Slovak National Uprising (SNP). The Bf 109G-6 had the standard Mtt Regensburg RLM 74/75/76 camouflage. The original Slovakian crosses were oversprayed with insurgent markings. The red section was always on the right. The markings on the wing had a red outline, sometimes a blue outline is mentioned, so both variants are offered in the decal. The insignia on the tail have a blue outline. Božík is credited with three kills of German aircraft during the SNU. After the SNU he was transported to the USSR and joined the 2nd Czechoslovak Fighter Aviation Regiment.



FLAT WHITE	H11 C62
RLM 23	H414 C114
RLM 04	H413 C113
RLM 76	H417 C117
RLM 02	H70 C60
RLM 75	H69 C37
RLM 74	H68 C36
RLM 70	H65 C18

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