## eduard

### 1/48 Scale Plastic Model Kit



### WEEKEND edition

No other aircraft is as intimately connected with the rise and fall of the German Luftwaffe in the course of the WWII as the Messerschmitt Bf 109. A very progressive design at the time of its invention, it had plenty of room for further development.

The history of the Bf 109 begins with the requirement L.A. 1432/33 issued by Reich Ministry of Aviation (RLM) in late March 1933. It called 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 create an aircraft with the best possible performance for the specified weight and size. Over the following 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, sported several quite 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 structure design were not usual 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 extrapolated development DB 605, is umbilically connected to the success of the Bf 109. These two-row, twelve-cylinder inverted V engines powered several tenths of thousands of Bf 109s in over 25 versions and variants.

### From Spanish War to the Reich Defence

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 its 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 triumph attained in Zurich in the summer of 1937 was complemented several months later by grabbing the speed record of 379.63 mph (610.95 km/h). In very short order, the progressive developments represented by the C, D and E versions appeared. Despite this, the delivery of the aircraft to combat units did not sustain the rate 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 next months saw an increase in these rates. By the time of the invasion of Poland (which saw the participation of only a little more than 200 aircraft) the Luftwaffe possessed the best fighter produced in continental Europe. So the fighter wing of the Luftwaffe entered the Polish campaign, the Blitzkrieg against the West, and the Battle for France with both a qualitative and quantitative advantage. 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. Experience 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 "Jagdwaffe" during the second phase of the war in the east, and in the "Defence of the Reich" from 1943 to 1945, the Bf 109s served in the form of the G version, followed by the K. Even if it was clear that the development of the Bf 109 had reached its limits by the end of the war, the aircraft was still able to keep pace with the foes that it encountered. Besides its primary purpose as a fighter, the Bf 109 also appeared as a fighter-bomber, reconnaissance platform, night fighter, trainer and rammjäger.

#### Postwar service

The disappearance of the Bf 109 from the skies over Europe was not spelled out by the end of the war. Several examples stayed in Swiss service up to 1949 and many flew in the air force of Czechoslovakia in both original form with a DB 605 powerplant and as an aircraft built out of necessity with surplus Jumo 211s. The latter type also served as the first fighter to fight for the independence of the newly formed state of Israel. Finland retired the type as recently as 1954, and Spain did not retire its HA-1109-1112, re-engined Bf 109s, until 1967. The legendary low-wing fighter of Professor Willy Messerschmitt survived the state that developed it.

### The kit: Bf 109F-4

The Bf 109F series (Friedrich) was a major improvement over its predecessor, the Bf 109E. There were numerous aerodynamical changes, giving the Bf 109 the shape, which was close to its final appearance. The engine cowling was completely redesigned and was more rounded and streamlined. The spinner was larger, and its shape transitioned smoothly into the line of the front fuselage. The oil cooler radiator below the nose was also streamlined. The wing lost its typical rectangle shape, as a new, rounded wingtips were developed. The armament was also revised and consisted of two .312 in (7.92 mm) MG 17 machine guns mounted on top of the engine and one 20mm cannon firing through the propeller spindle. The new aircraft was well received as it was the best handling Bf 109 of them all. The F-4 sub-variation was using VDM 9-12010 propeller with broader blades and got the new cannon Mauser MG 151/20. The first Bf 109F-4s arrived in June 1941 and the production ran from the May 1941 to the same month a year later. During that period 1,841 of the Bf 109F-4 were produced.



Carefully read instruction sheet before assembling. When you use glue or paint, do not use near open flame and use in well ventilated room. Keep out of reach of small children. Children must not be allowed to suck any part, or pull vinyl bag over the head.



Před započetím stavby si pečlivě prostudujte stavební návod. Při používání barev a lepidel pracujte v dobre větrané místnosti. Lepidla ani barvy nepoužívejte v blízkosti otevřeného ohně. Model není určen malým dětem, mohlo by dojít k požití drobných dílů.

### INSTRUCTION SIGNS \* INSTR. SYMBOLY \* INSTRUKTION SINNBILDEN \* SYMBOLES

? **OPTIONAL VOLBA** 



OHNOUT



**BROUSIT** 



**OPEN HOLE** VYVRTAT OTVOR



SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ



(2) REVERSE SIDE REMOVE **ODŘÍZNOUT** OTOČIT

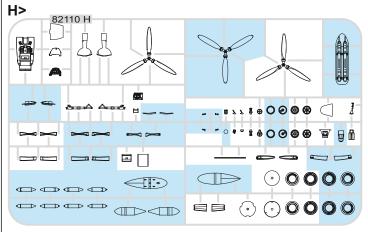


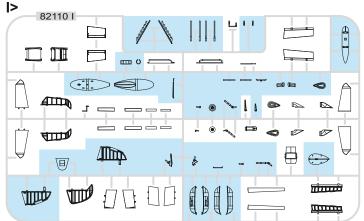
APPLY EDUARD MASK AND PAINT POUŽÍT EDUARD MASK NABARVIT

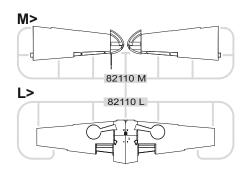
### PLEASE, CHECK THE LATEST VERSION OF THE INSTRUCTION ON www.eduard.com

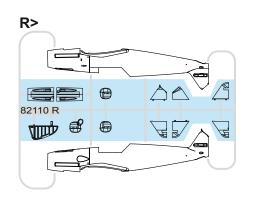
**PARTS** DÍL **PIÈCES** TEILE

### **PLASTIC PARTS**









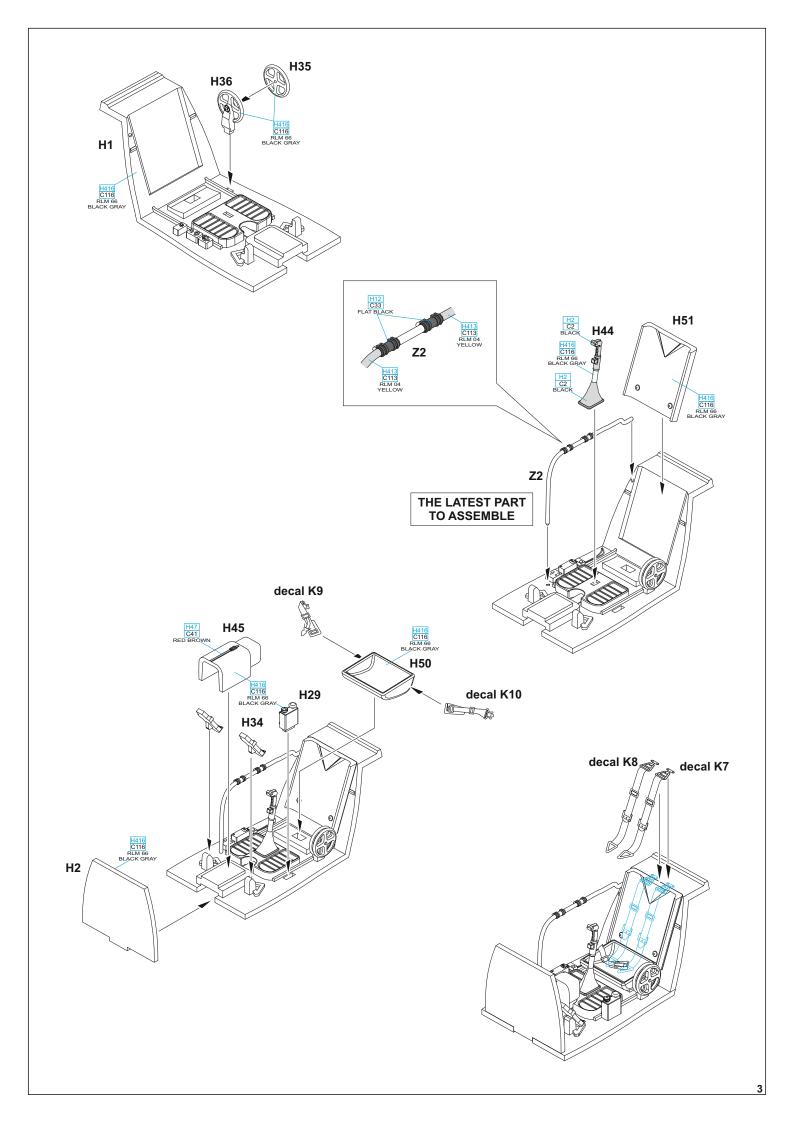


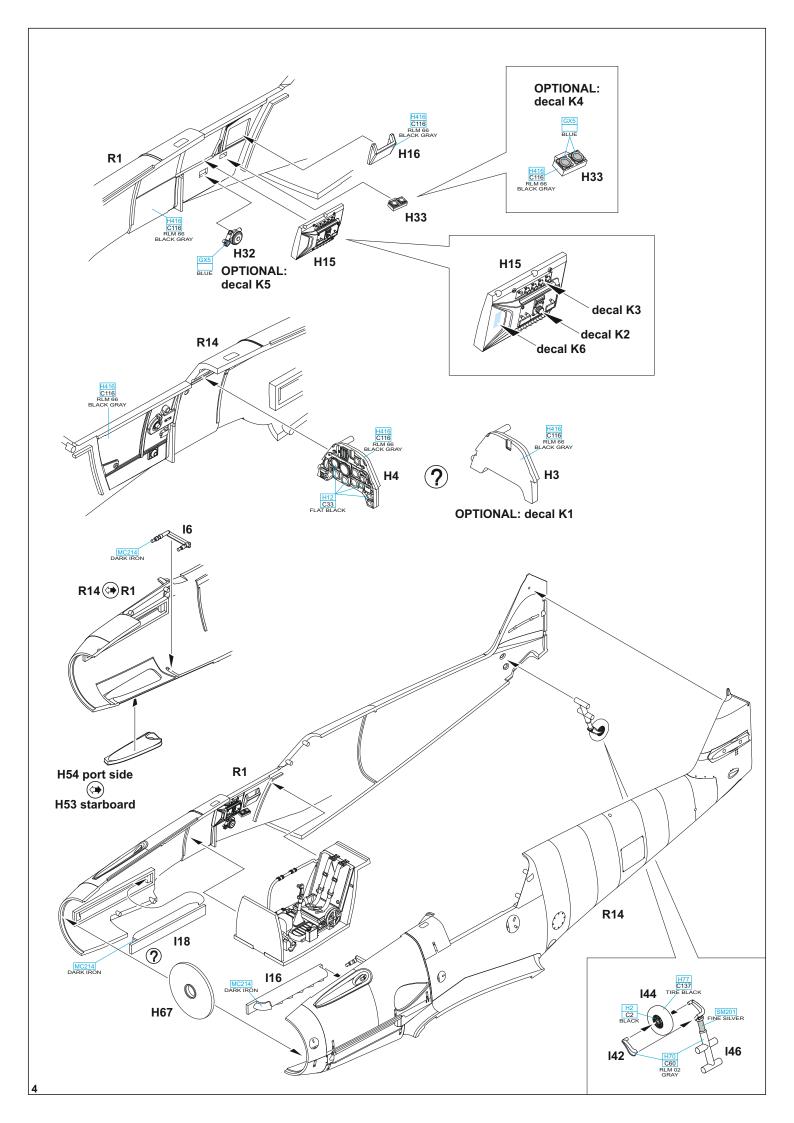
Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto díly nepoužívejte při stavbě. - 使用しない部品

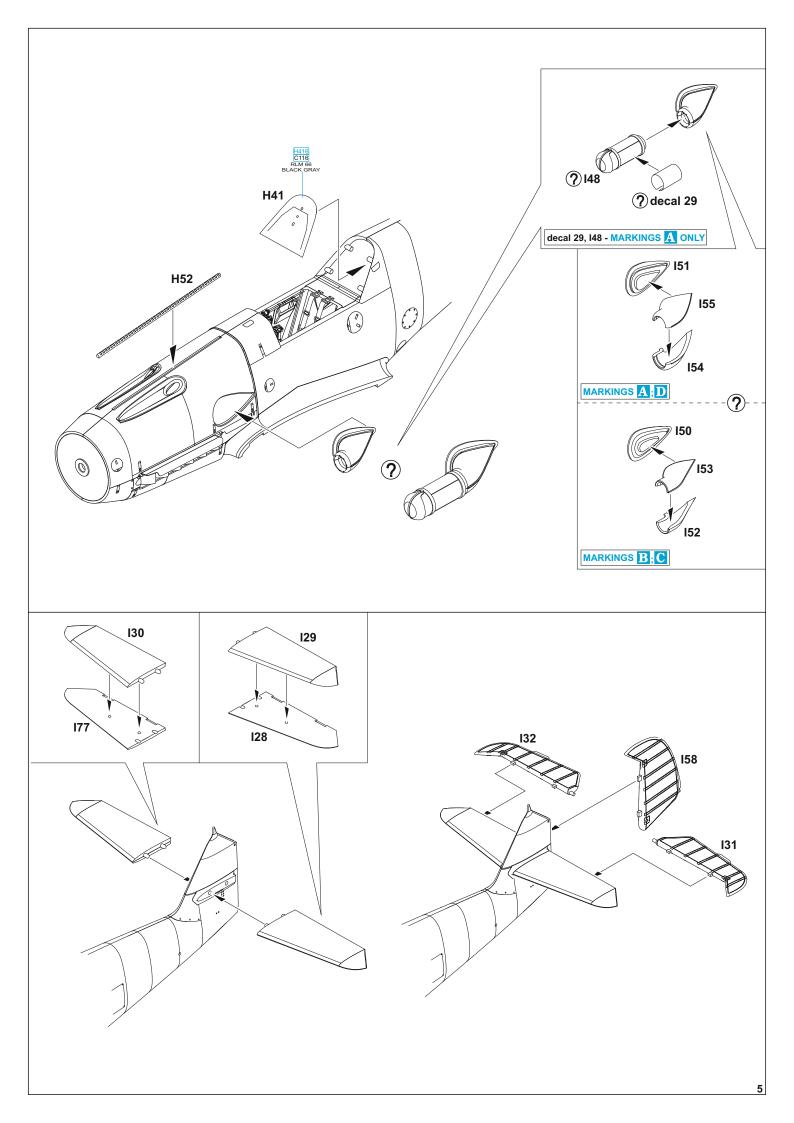
**COLOURS PEINTURE BARVY FARBEN** 

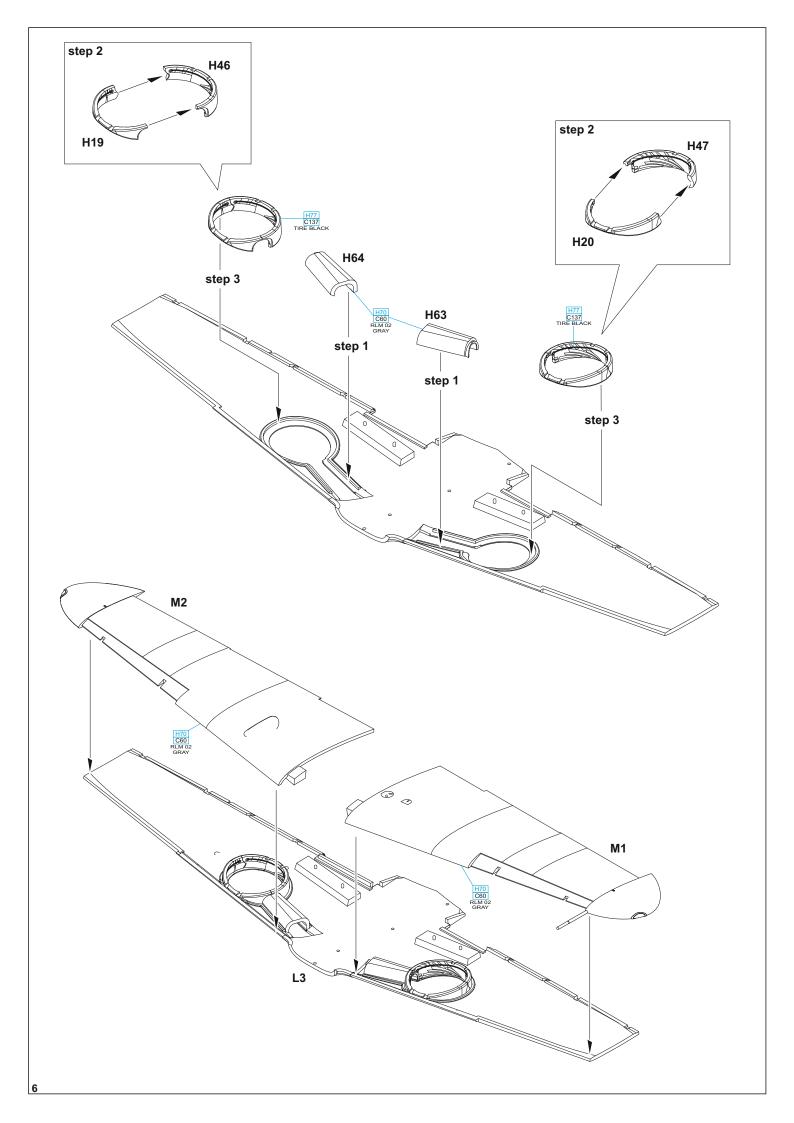
GSi Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H2	C2	BLACK
H11	C62	FLAT WHITE
H12	C33	FLAT BLACK
H47	C41	RED BROWN
H64	C17	RLM71 DARK GREEN
H65	C18	RLM70 BLACK GREEN
H66	C119	RLM79 SAND YELLOW
H68	C36	RLM74 DARK GRAY
H69	C37	RLM75 GRAY
H70	C60	RLM02 GRAY
H77	C137	TIRE BLACK
H90	C47	CLEAR RED

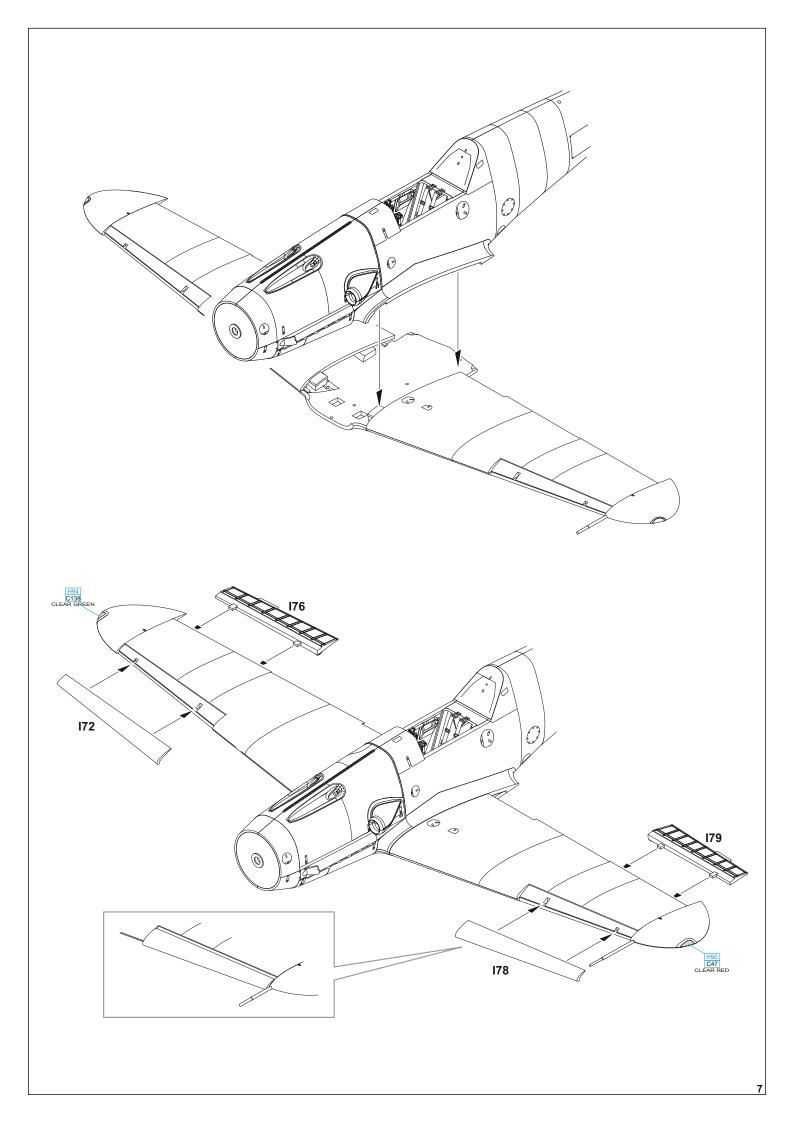
GSi Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H94	C138	CLEAR GREEN
H413	C113	RLM04 YELLOW
H414	C114	RLM23 RED
H416	C116	RLM66 BLACK GRAY
H417	C117	RLM76 LIGHT BLUE
H418	C118	RLM78 LIGHT BLUE
Mr.METAL COLOR		
MC214		DARK IRON
Mr.COLOR SUPER METALLIC		
SM201		SUPER FINE SILVER
Mr.COLOR GX		
GX05		SUSIE BLUE

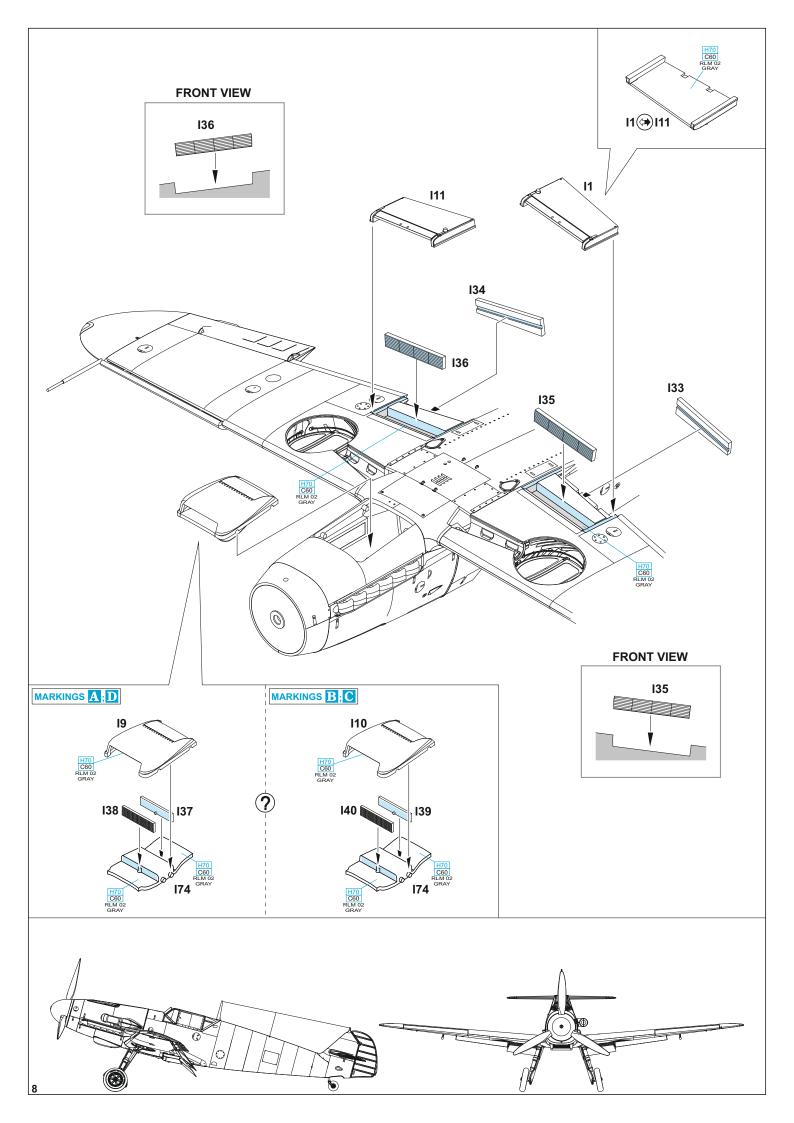


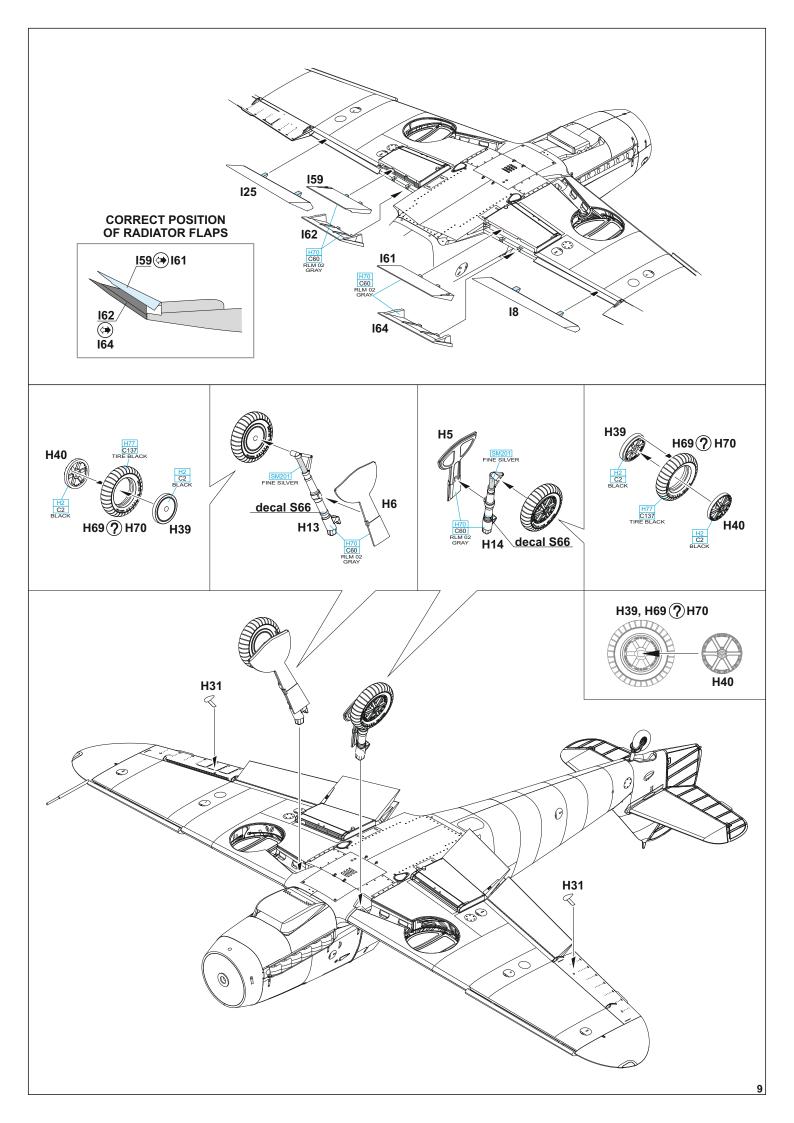


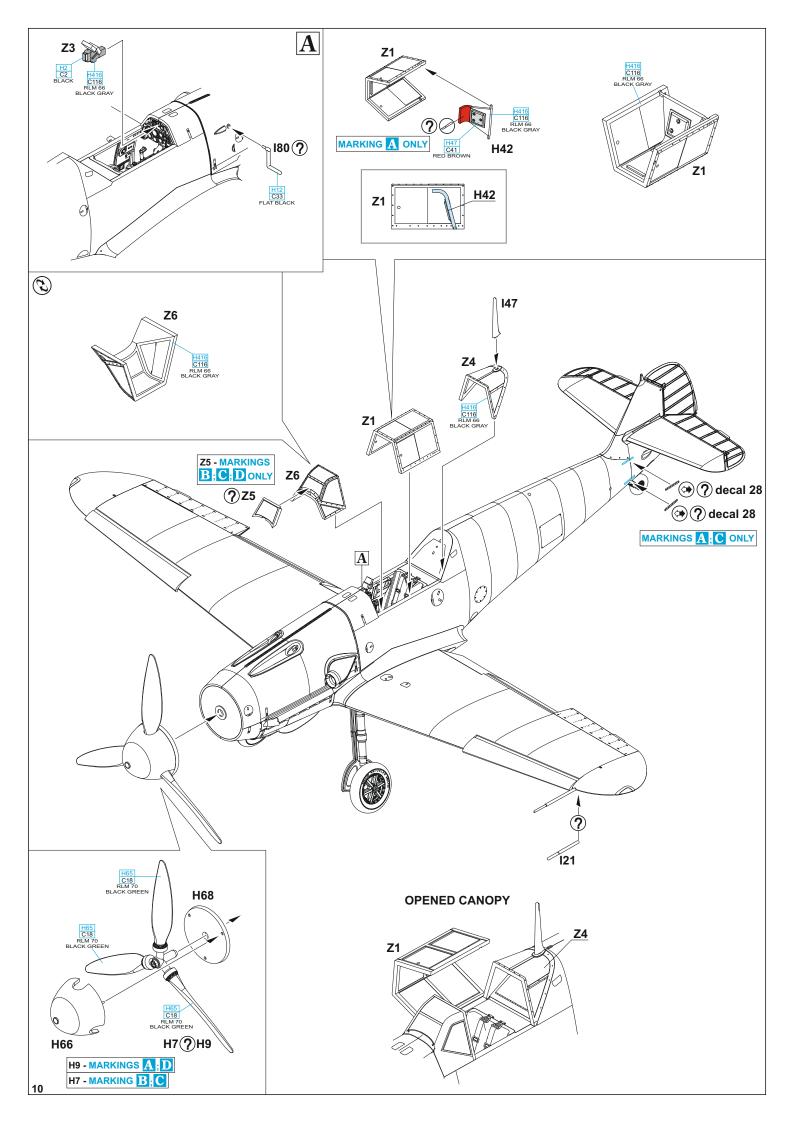






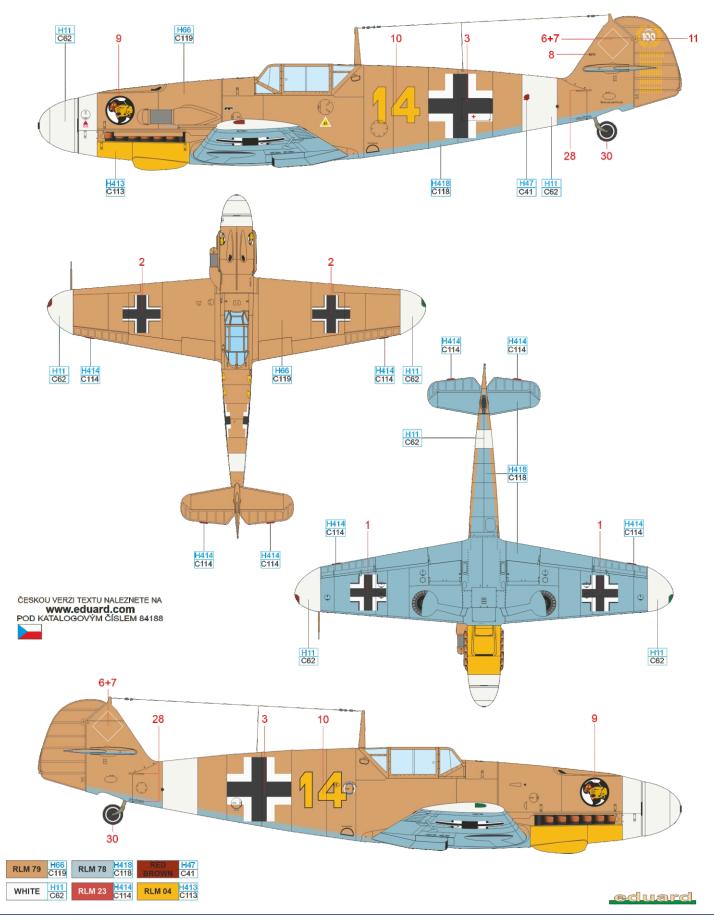






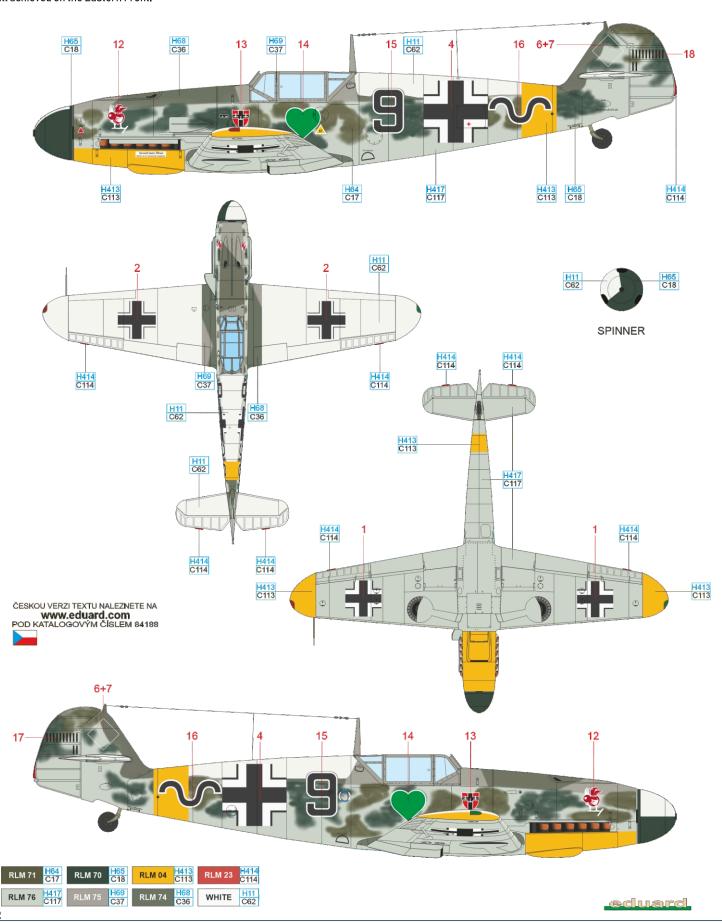
## A Bf 109F-4/Trop, WNr. 8673, Hptm. Hans-Joachim Marseille, CO of 3./JG 27, Quotaifiya, Egypt, September 1942

Hans-Joachim Marseille used this plane after his return from Rome and achieved 49 victories with this last of "Friedrichs" he used from August 24, 1942, to September 25, 1942. On September 30, 1942, he flew the Messerschmitt Bf 109G-2/Trop as he led escort mission of the 3. Staffel to cover a squadron of Ju 87 Stukas. On the return leg, a smoke filled the cockpit, and Marseille was forced to bail out. Hitting the rudder after the emergency exit of the plane, he lost consciousness, and his parachute did not open. Seconds later, Marseille died from the impact on the ground. After his death, WNr. 8673 was used by 1./SG 2 but was hit by flak and lost southward of El Alamein on October 22, 1942. The aircraft had the upper camouflage color RLM 79 sprayed all over the fuselage sides as a non-standard finish. The lower surfaces were sprayed with RLM 78 and the camouflage was complemented by the markings of the aircraft operating on the Southern front, i.e., white wingtips, white spinner and a band on the aft fuselage of the same color. The engine cowling bore the emblem of I. Gruppe JG 27 on both sides.



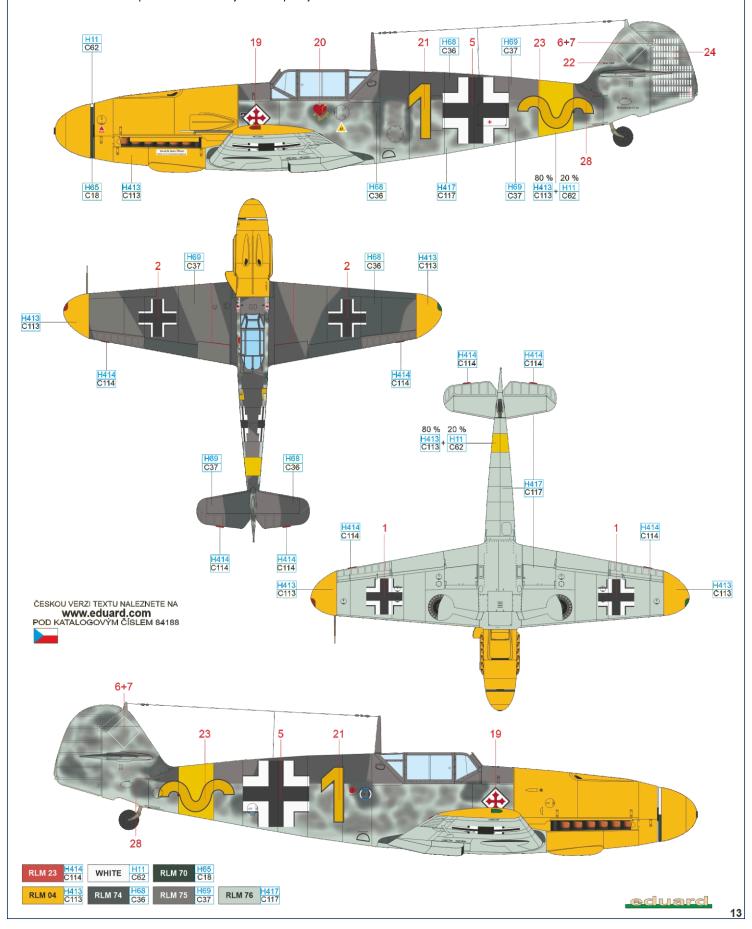
### Bf 109F-4, Lt. Hans-Joachim Heyer, 8./JG 54, Siverskaya, Soviet Union, April 1942

The recipient of the Knight's Cross, Hans-Joachim Heyer, was born on April 20, 1922, in Rehungen. He served his entire aviation career as a member of 8./JG 54 and scored his first kill on the first day of the invasion to Soviet Union on June 22, 1941. His victim was a Polikarpov I-15. Heyer's "Black 9", which he flew from the spring of 1942, was camouflaged with RLM 74/75/76 colors and the fuselage sides were completed with RLM 70 and RLM 71 patches. The upper surfaces of the wing, the rear fuselage behind the cockpit and the horizontal tail surfaces were all painted in white overpaint made by washable color. The III./JG 54 emblem was painted below the windshield on both sides of the fuselage. More to it, on the left side under the cockpit there was painted the JG 54 emblem – a green heart. On the rudder, there were kill marks painted on both sides. Hans-Joachim Heyer was shot down and killed near Leningrad on November 9, 1942. He was posthumously awarded the Knight's Cross on November 25, 1942. His score stopped at 53 aerial victories, all achieved on the Eastern Front.



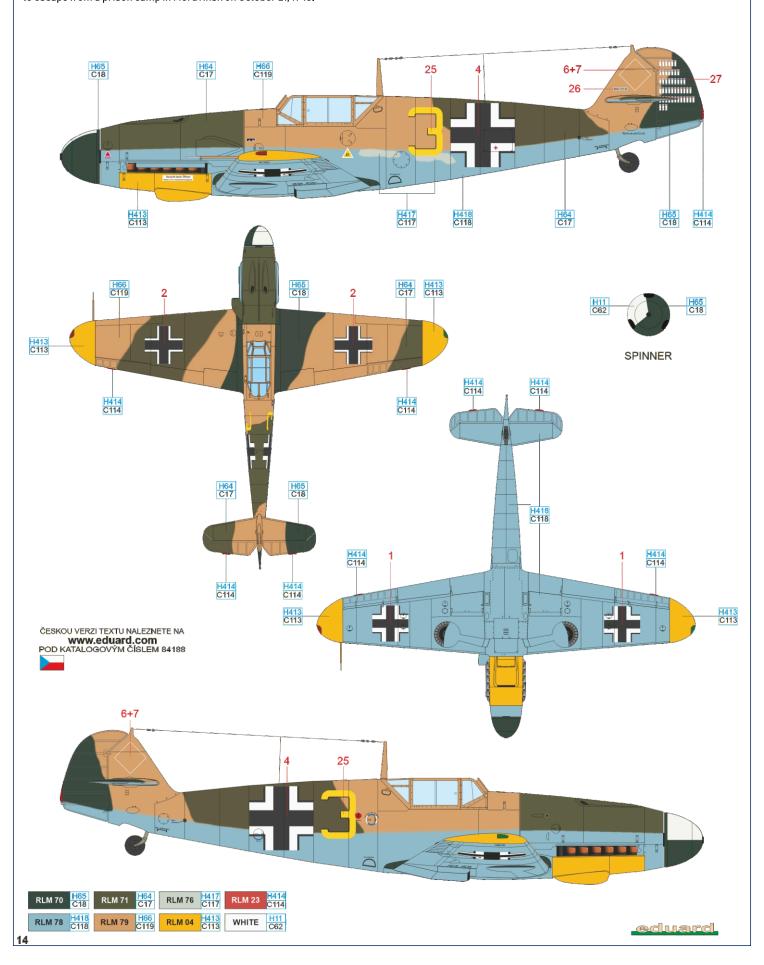
### C Bf 109F-4/Z, WNr. 7420, Lt. Hermann A. Graf, CO of 9./JG 52, Kharkov-Rogan, Soviet Union, May 1942

Hermann Anton Graf was born on October 24, 1912. He trained as a locksmith and was a keen football player in his youth. Later he took up sailing and entered the army in 1939. In the spring of 1940, he served in JG 51 and participated in the Battle of France. In April 1941, he fought over Greece and Crete, but did not record any victories during this period. His first kill came on August 4, 1941, near Kiev and things changed. At the end of January 1942, he received the Knight's Cross for 45 kills, in May 1942, he achieved his 100<sup>th</sup> aerial victory and received Oak Leaves and Swords in addition to the Cross. He was the fifth in line of pilots to be awarded the Diamonds to the Knight's Cross with Oak Leaves and Swords on September 29, 1942. Graf became part of propaganda campaigns, even a member of the Luftwaffe football team. At the end of the war, he was leading JG 52 and retreated with the unit from East Prussia, through Silesia and into Bohemia. He surrendered on May 8, 1945, in Písek (South Bohemia) to the Americans. They promptly handed him over to the Russians and Graf spent more than four years in captivity.

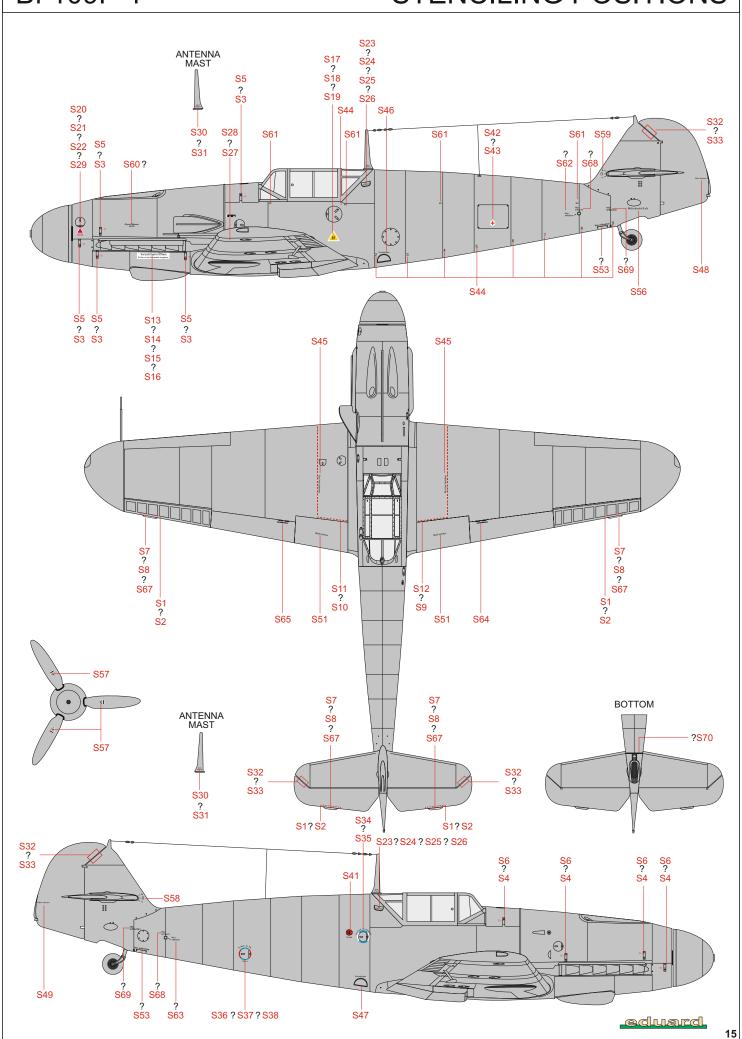


### Bf 109F-4/Trop, WNr. 10145, Fw. Rudolf Müller, 6./JG 5, Petsamo, Finland, June 1942

Rudolf "Rudi" Müller was born on November 21, 1920, in Frankfurt am Main. During 1940 he underwent pilot training and was assigned to 1./JG 77 in August 41. He scored his first kill on September 12, 1941. His victim was a Soviet I-16. On March 21, 1942, the 6./JG 5 was formed and the number of Müller's victories over Soviet pilots was steadily rising during this time. Encounters took place during Luftwaffe attacks on convoys to and from Murmansk and during multiple combats with Soviet forces in the area of the Vayenga airfield or over the base of the JG 5 at Petsamo-Luostari. Rudolf Müller was awarded the Knight's Cross on June 19, 1942, but was shot down and captured by Soviet forces on April 19, 1943. He did not survive, as he was shot while attempting to escape from a prison camp in Mordvinsk on October 21, 1943.



## STENCILING POSITIONS



### **Eduard goodies for**

# Bf 109F-4 1/48

