

Avia S-199 ERLA canopy

eduard

1/72 Scale Plastic Model Kit

WEEKEND
edition



item # 7472

The Avia S-199 became an aircraft that, despite its rather poor performance and flying characteristics, played an important role both in the rebirth of the post-war Czechoslovak Air Force as well as in the defense of the new state of Israel.

With the end of the World War II, countries occupied by Nazi Germany regained their freedom. At the same time, they faced the urgent need to rebuild their armed forces. For a decimated industry and economy, this was no easy task in many countries.

Although post-war Czechoslovakia acquired aircraft the members of the foreign resistance returned home with (both from Eastern and Western front), there were not enough of them. Moreover, the war-impooverished country lacked sufficient funds to purchase the large number of modern fighter aircraft it needed. The estimated cost of one billion Czech crowns was amount equal to the entire financial reserve in gold of the country at that time. Nevertheless, it was necessary to build air regiments and to train new pilots. The intended solution was to use the airframes of German Messerschmitts Bf 109 G and K versions and DB 605 engines, of which Czechoslovakia had quite a large number in various state of condition. Other airframes were purchased from Bulgaria. A total of 21 Avia S-99s were assembled, which in fact were the German Bf 109G-10s apart of some minor technical details. These aircraft undergone army trials, although all but one of them served with the Police Air Units.

But the DB 605 engines were troublesome, as they were of poor quality late war production, not to mention the fact the stocks included several different versions of this engine varying in many aspects including the type of the fuel. Further production of the S-99 was also compromised by a massive explosion at the former sugar factory Krásné Březno on July 31, 1945. The facility served as military storage site at the time and most of the DB 605 engines were destroyed there by the explosion. Although there was still stock of the engines, the decision was to abandon the S-99 project. As there was also a significant number of Jumo 211 and 211F engines available (up to 4,270 units) in Czechoslovakia, the decision was made to use them instead of DB 605. This was a stop-gap solution only, as the Jumo 211 engine was not ideal for fighter aircraft. Even less suitable was the Jumo VS-11 propeller. It had wooden blades that were heavy, plus they were quite wide, which suited bombers, but not fighter aircraft. They generated massive torque, which was the problem especially during take-offs. The aircraft had high tendency to run out off the course, which had to be negotiated by pilot's controls input. This led to many dangerous situations and crashes. Because of its handling, the S-199 earned the nickname Mezek, which in the Czech language means Mule.

In spite of all the problems the S-199s gradually equipped all the fighter units of the Czechoslovak Air Force between 1948 to 1950. Thanks to them, the training of new fighter pilots was possible.

Lacking desperately

The new fighter aircraft was offering flight performances that were far from the top of the contemporary machinery at the time of its creation. It lagged behind the best piston-engined aircraft in top speed by about 110 to 124 mph (180 to 200 km/h). This was down to the engine, which, even in comparison with the least powerful version of the original DB 605, lacked some 107 hp (80 kW), but when compared to the DB 605AM version it had up to 426 hp (317 kW) power deficit, and compared to the top piston machines of its time the deficit was up to 1140 hp (850 kW)! No wonder that S-199 could not compete with modern fighters in terms of flight performance. However, it was fully aerobatic aircraft, so the air combat training and also gunnery training were possible. Bombing training could also be carried thanks to the 4 × ETC 50 bomb racks. A total of 510 single-seat and 47 two-seat CS-199 converted Messerschmitts were ordered at the end of 1947. However, the exact number actually produced is unclear and is estimated at between 450 and 500 of S-199s, while 82 of CS-199s were to be produced.

This kit: Avia S-199 ERLA canopy

The first S-199s produced differed little from the Bf 109G/K design save for the engine and the changes to the cowl. These included narrow longitudinal extensions to the original oval bulges above the machine guns due to the bulkier engine mount and the air intake to the carburetor moved from port to starboard side. The front of the fuselage was also modified to better match the smaller diameter spinner. However, it was not long before changes began to take place. The most visible were replacement of the standard oil cooler by heat exchanger under the cockpit floor and change of the canopy from the original side-opening "Erla Haube" to semi-bubble rear sliding one. The latter improved the view from the cockpit and increased the space in the pilot's head area as well. Nevertheless, many of the S-199s retained their Erla Haube canopy although they were equipped with the heat exchanger instead of the oil cooler. Another change in design was the angle of the wheels. It changed in relation to the main landing gear legs. Originally, the wheels were almost parallel with the landing gear legs in front view. This position was disadvantageous for taxiing on concrete surfaces, so the position was changed to nearly vertical position.

The armament has also changed. Initially, it consisted of only two MG 131 machine guns of 13 mm caliber above the engine, later some aircraft received another pair of these, mounted in the wing. Finally, MG 151/20 20 mm caliber cannons mounted in cases were installed under the wing instead of the wing machine guns.

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. 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

PARTS



DÍLY



TEILE

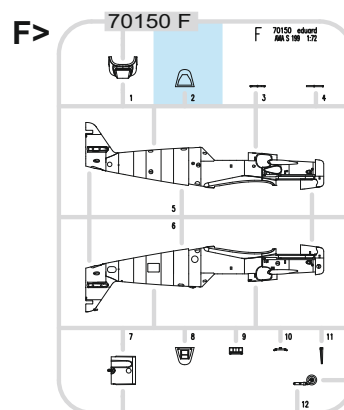
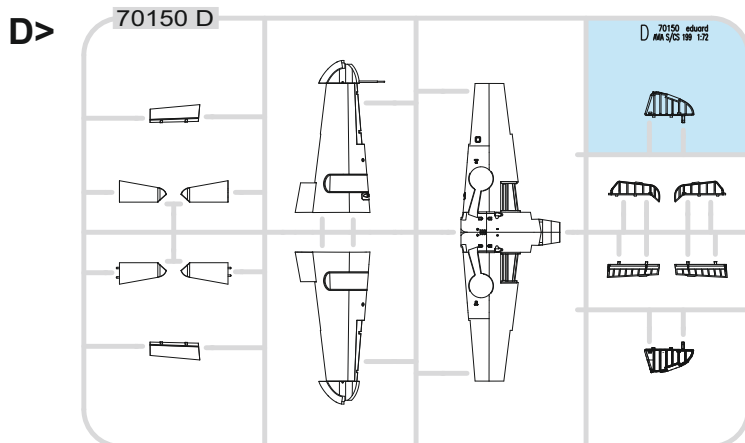
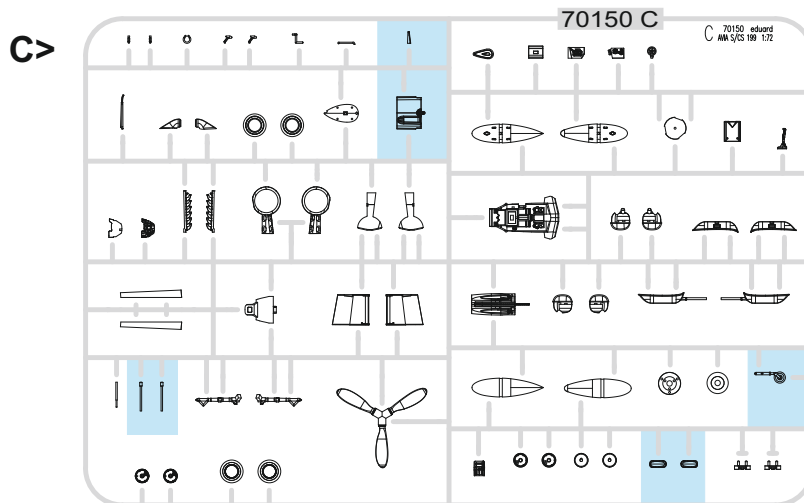
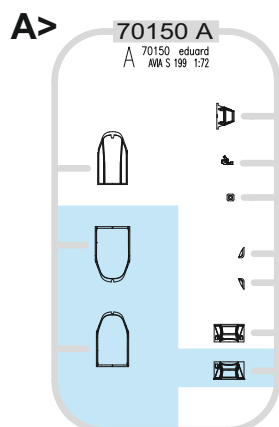


PIÈCES



部品

PLASTIC PARTS



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

COLOURS



BARVY



FARBEN



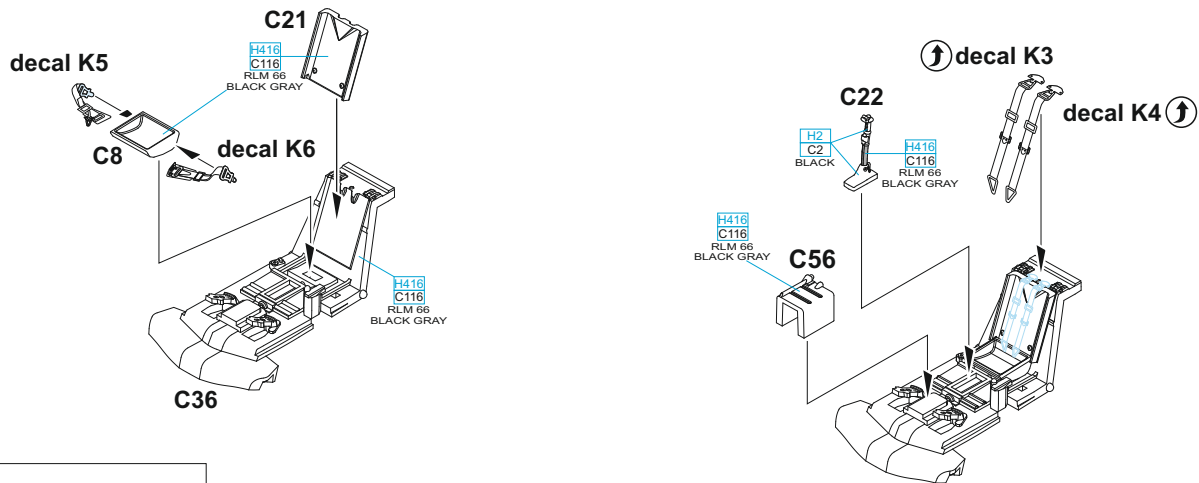
PEINTURE



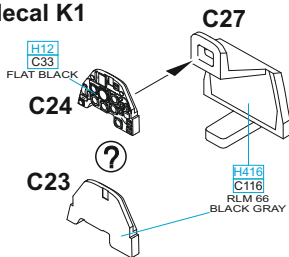
色

GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H1	C1	WHITE
H2	C2	BLACK
H3	C3	RED
H12	C33	FLAT BLACK
H25	C34	SKY BLUE
H70	C60	GRAY
H77	C137	TIRE BLACK
H90	C47	CLEAR RED
H94	C138	CLEAR GREEN

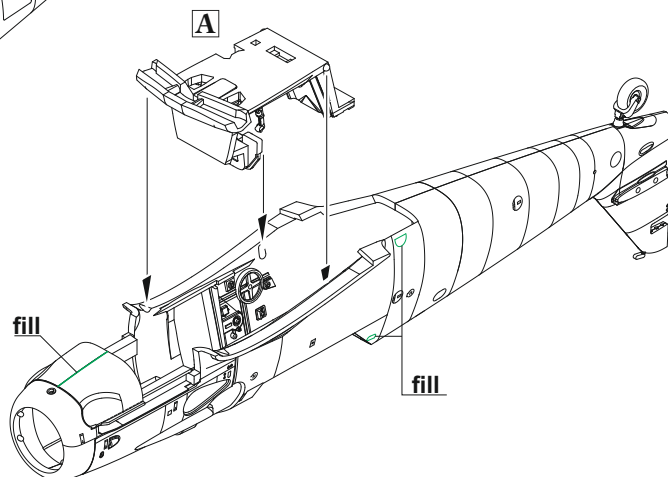
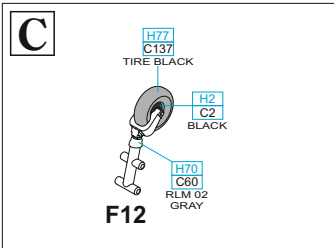
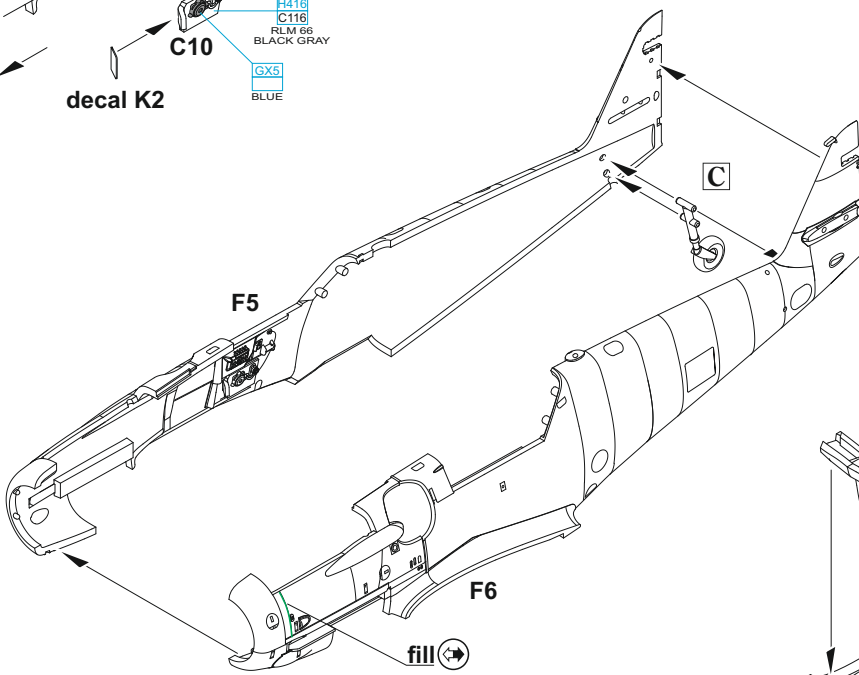
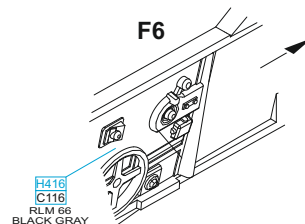
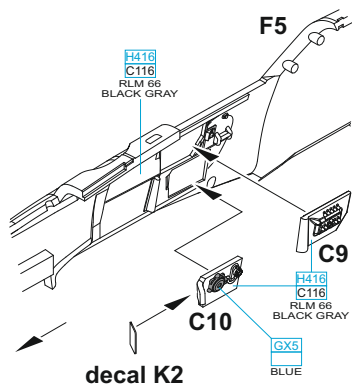
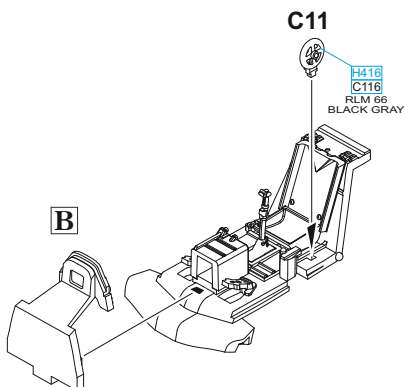
GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H416	C116	BLACK GRAY
H422	C122	LIGHT GREEN
Mr.METAL COLOR		
MC214		DARK IRON
Mr.COLOR SUPER METALLIC		
SM201		SUPER FINE SILVER
Mr.COLOR GX		
GX05		SUSIE BLUE

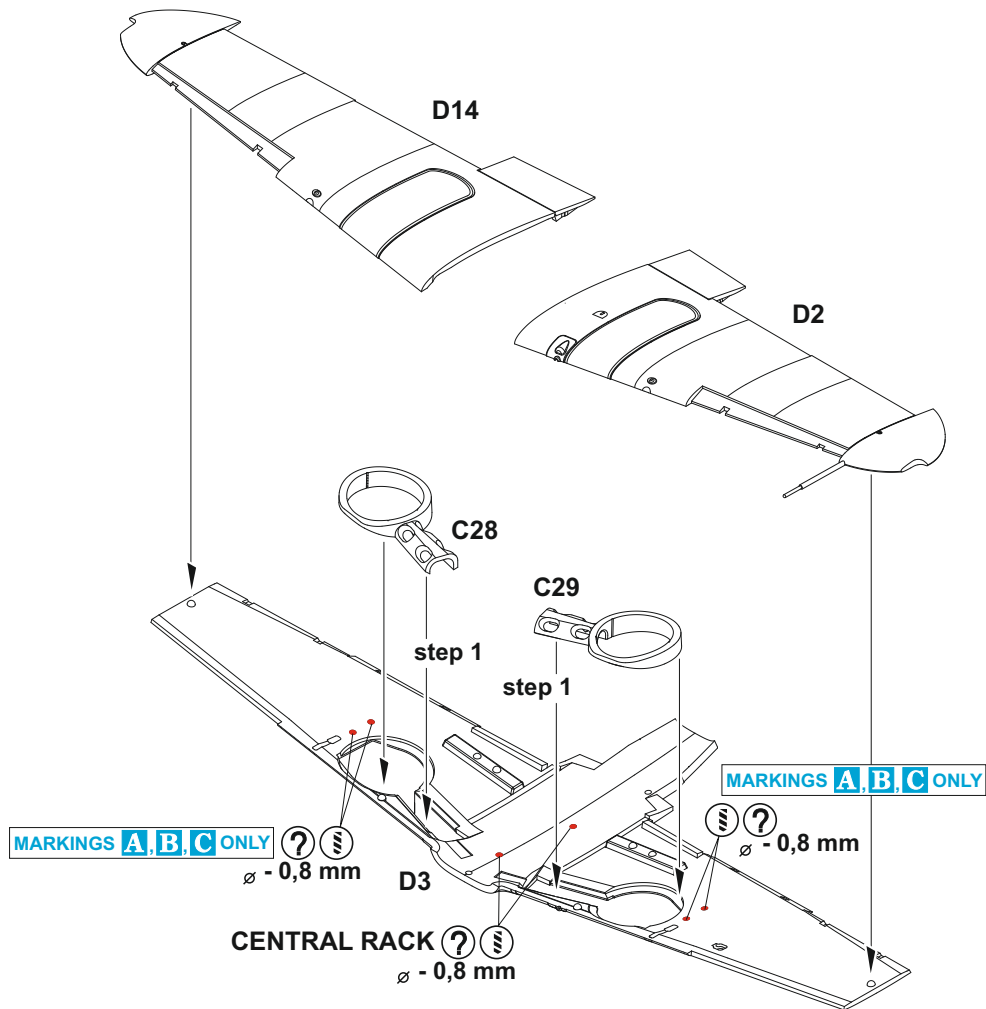
A**B**

**OPTIONAL:
decal K1**



**OPTIONAL:
decal K1**





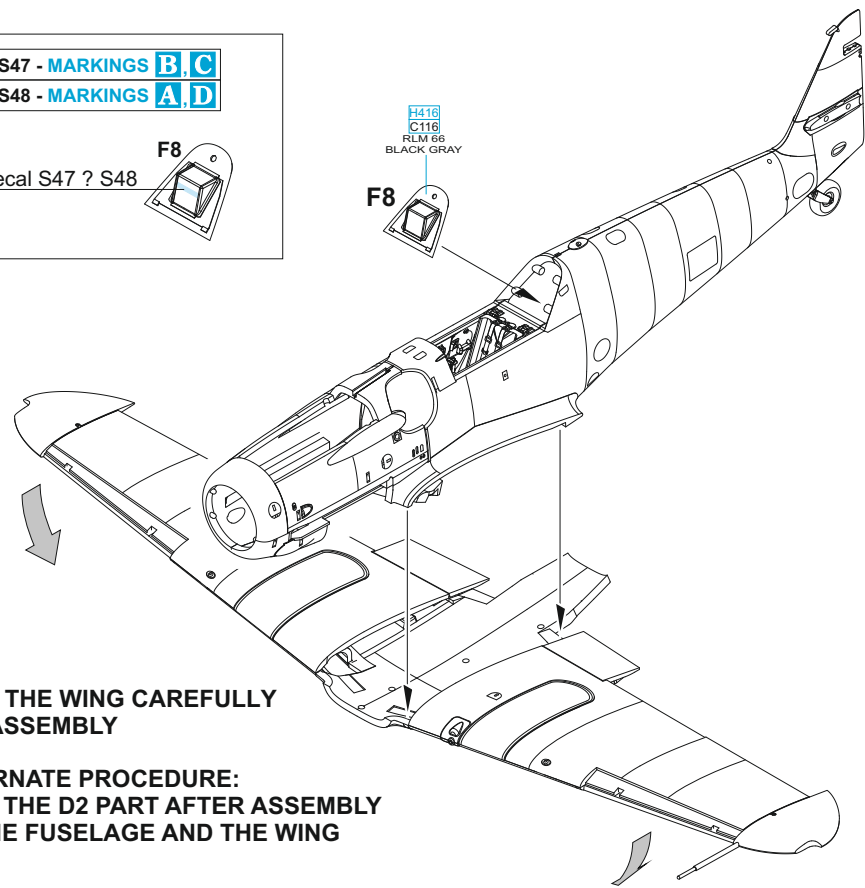
decal S47 - MARKINGS B, C
 decal S48 - MARKINGS A, D

F8

decal S47 ? S48

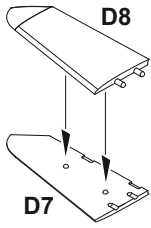
H416
 C116
 RLM 66
 BLACK GRAY

F8

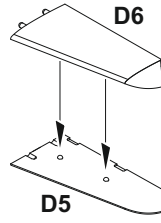
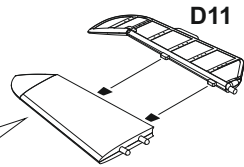


BEND THE WING CAREFULLY FOR ASSEMBLY

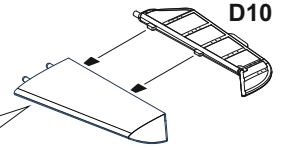
**ALTERNATE PROCEDURE:
 GLUE THE D2 PART AFTER ASSEMBLY OF THE FUSELAGE AND THE WING**



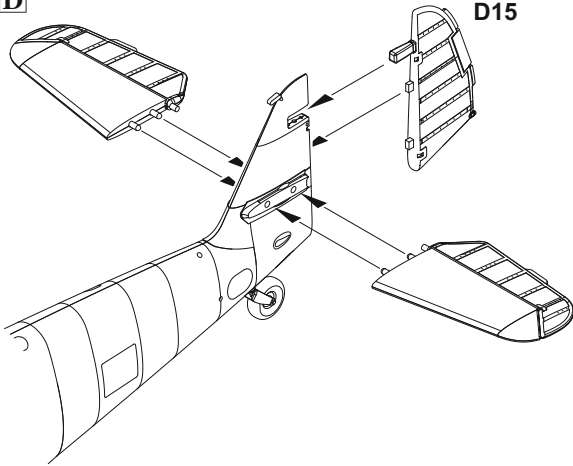
D



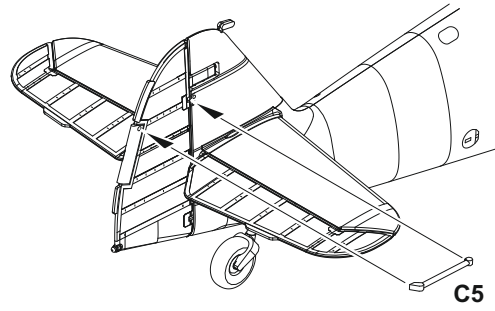
E



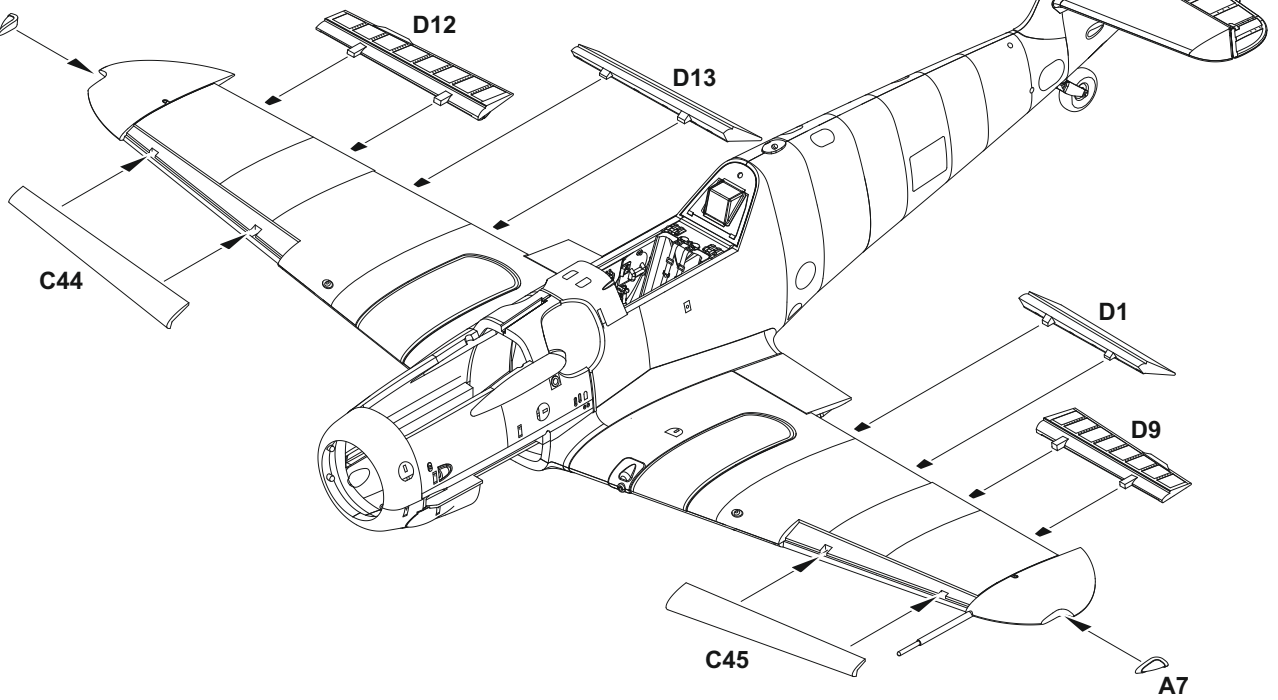
D

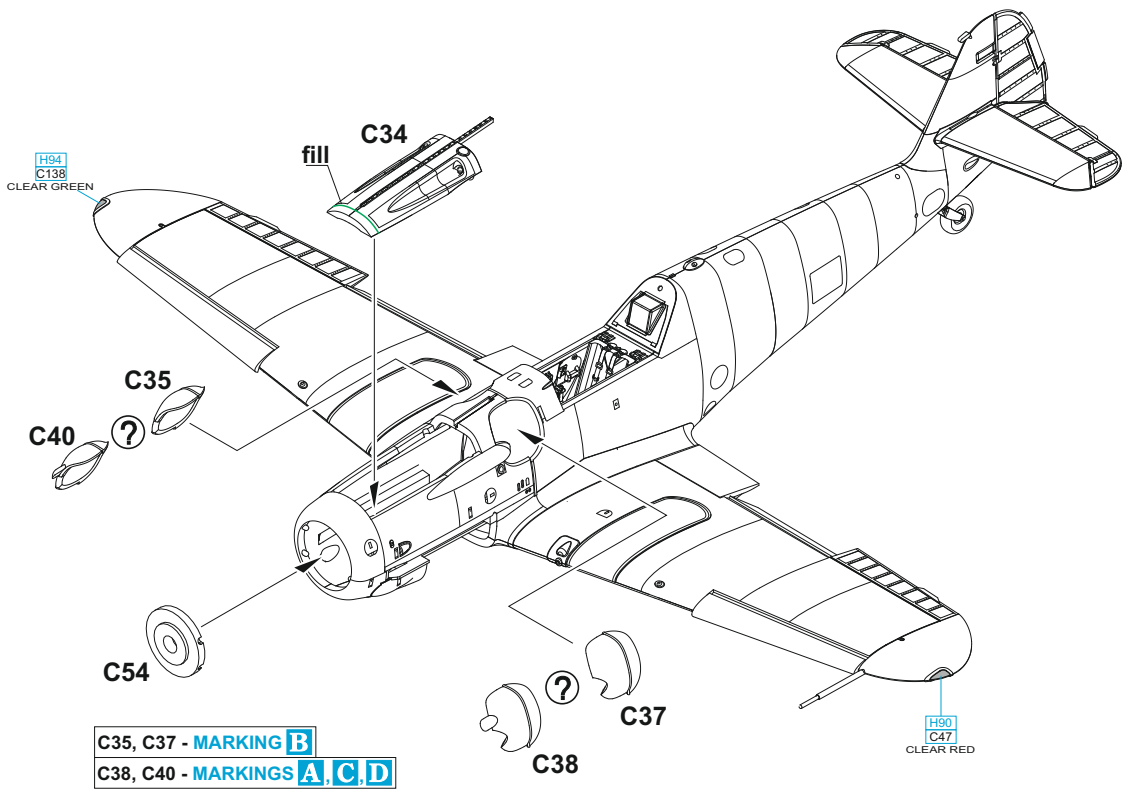


E

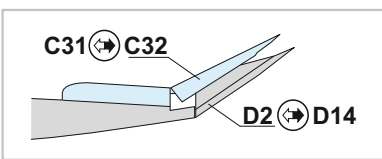
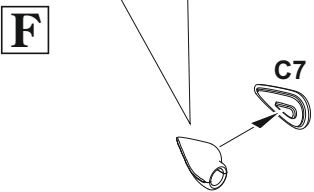
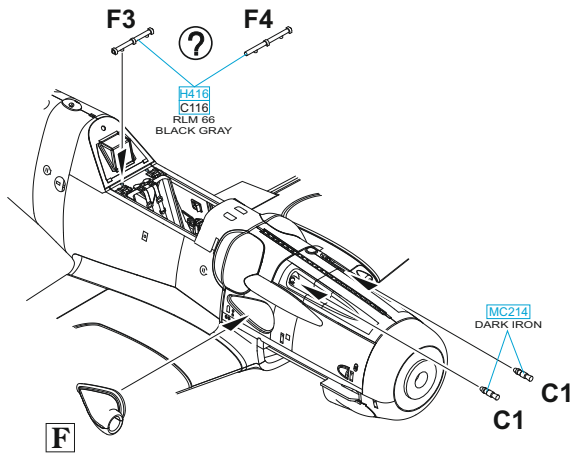


A6

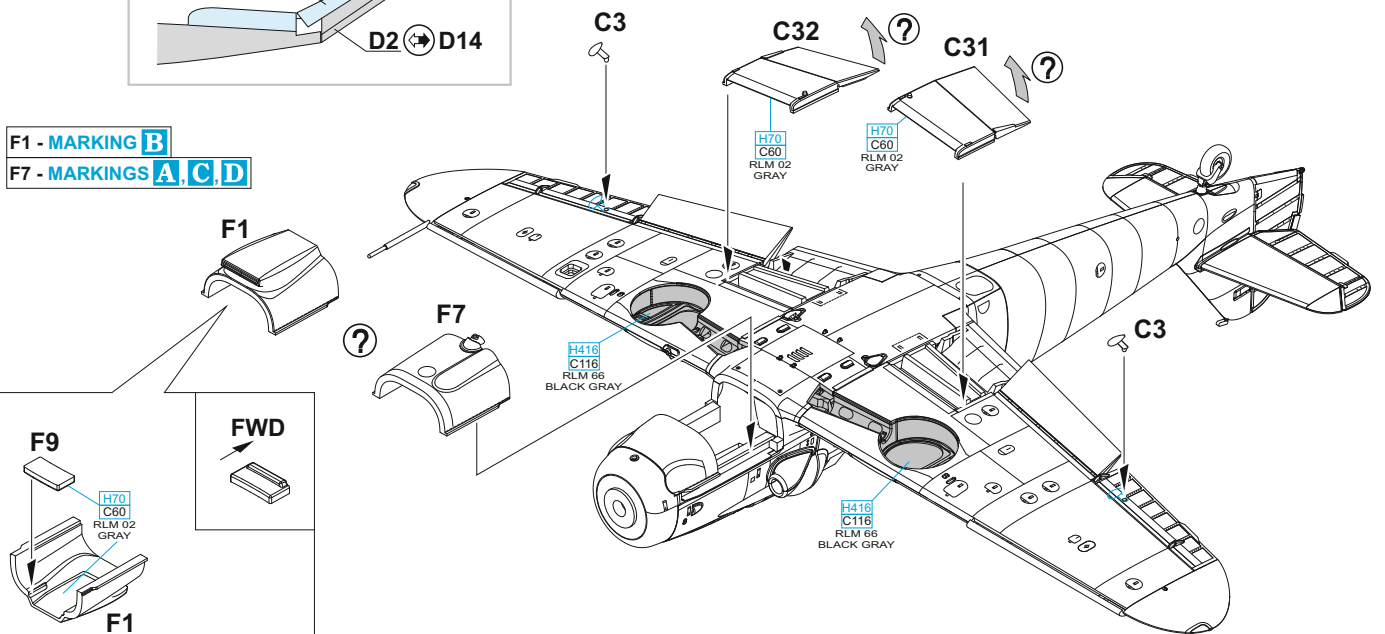


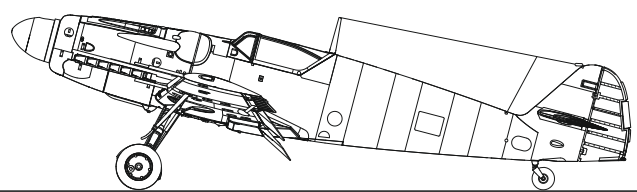
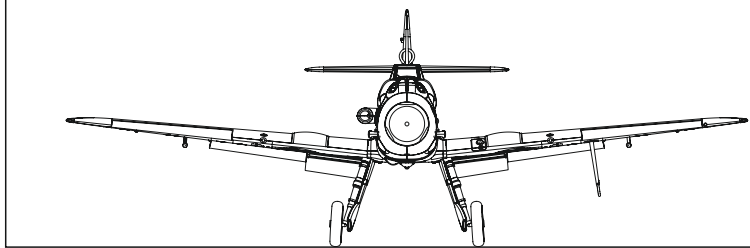
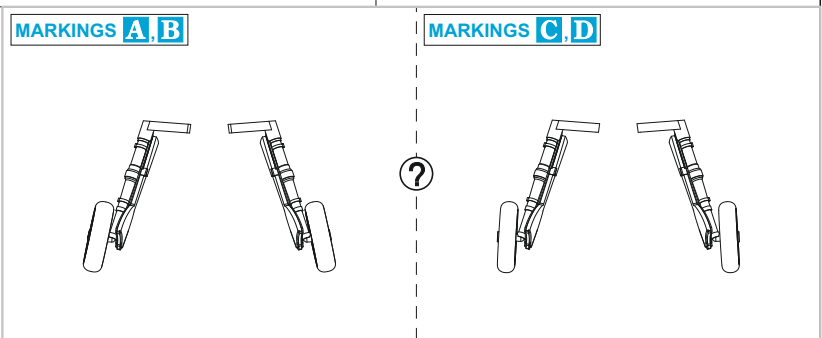
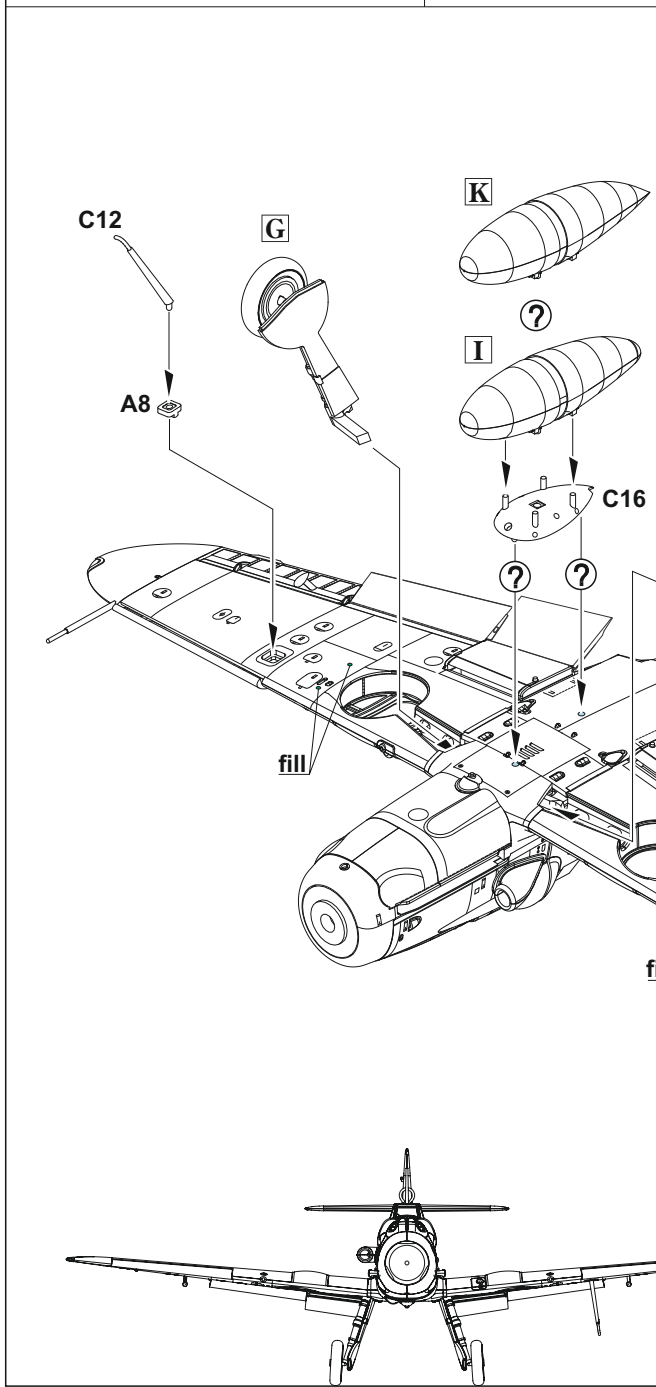
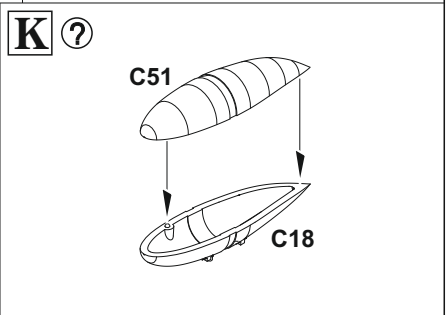
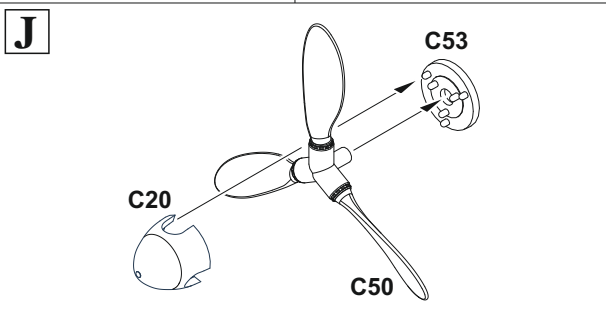
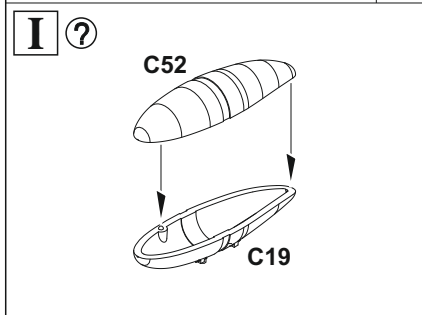
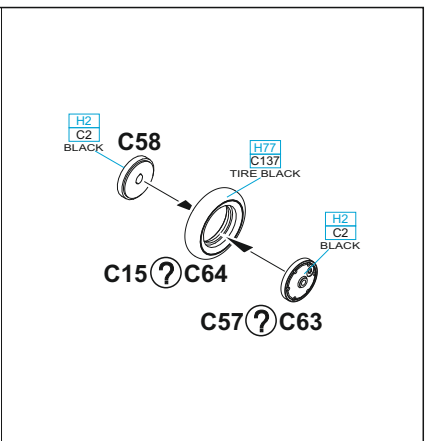
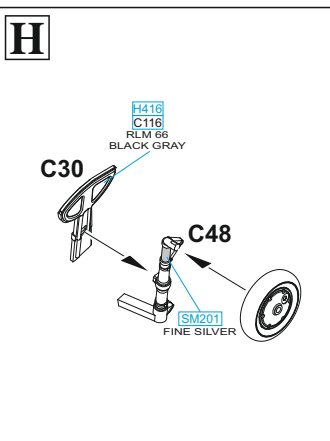
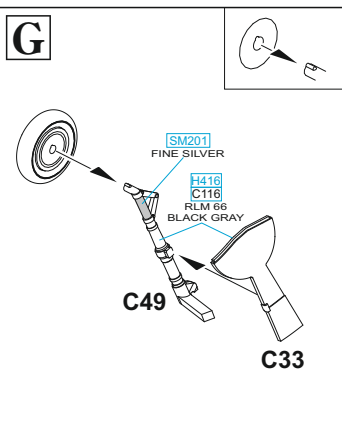
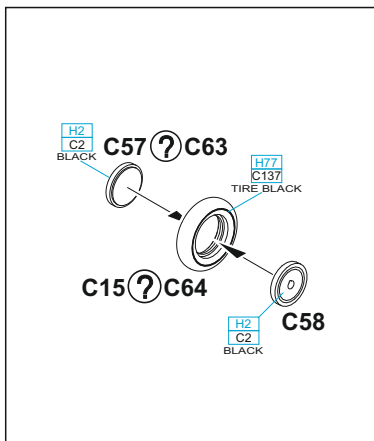


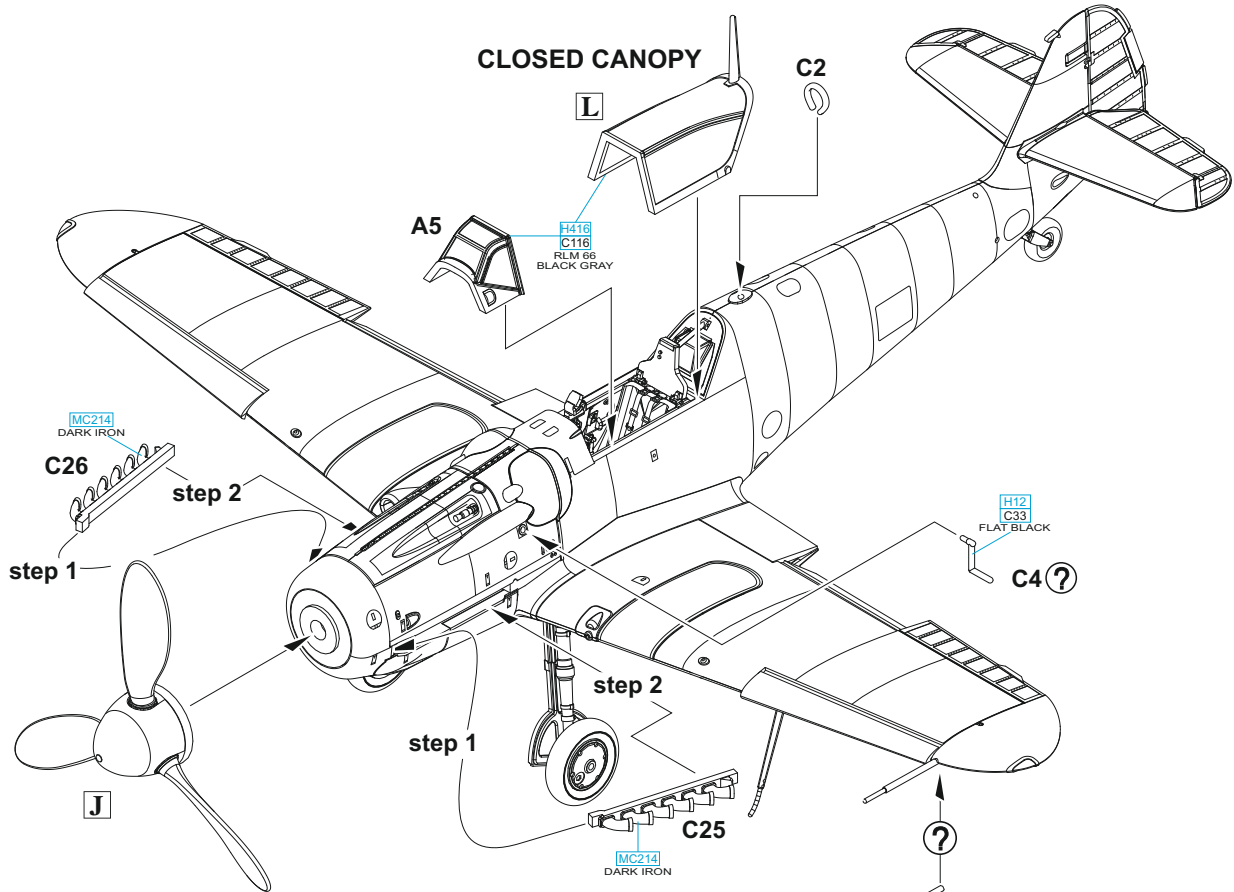
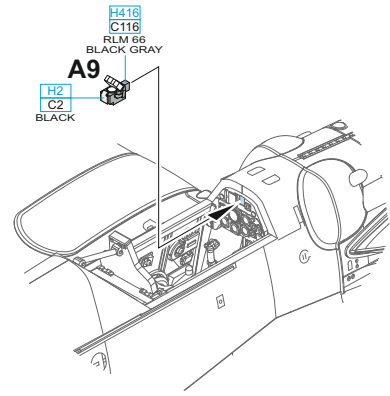
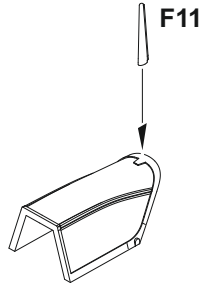
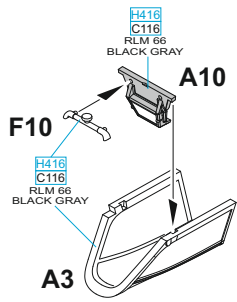
CLOSED CANOPY OPEN CANOPY



F1 - MARKING B
F7 - MARKINGS A, C, D

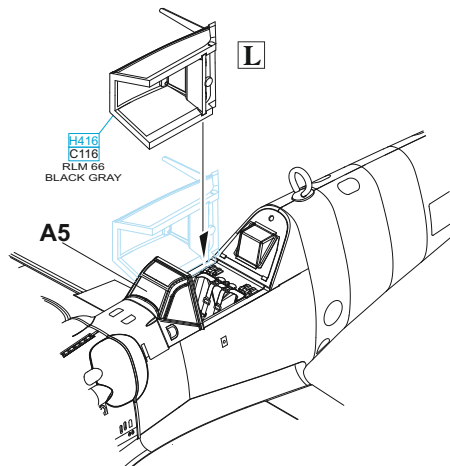


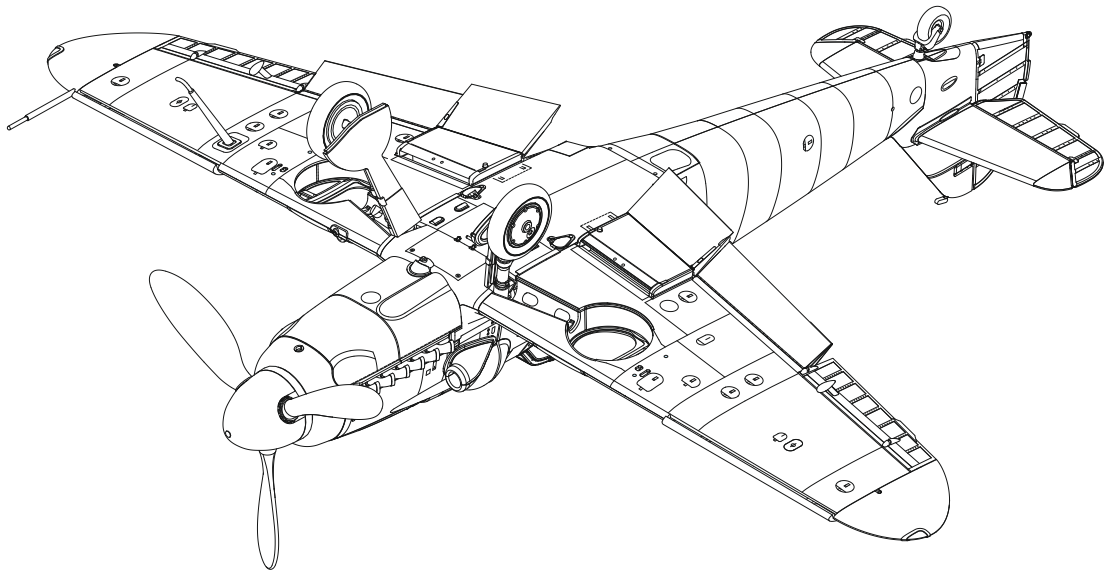


L

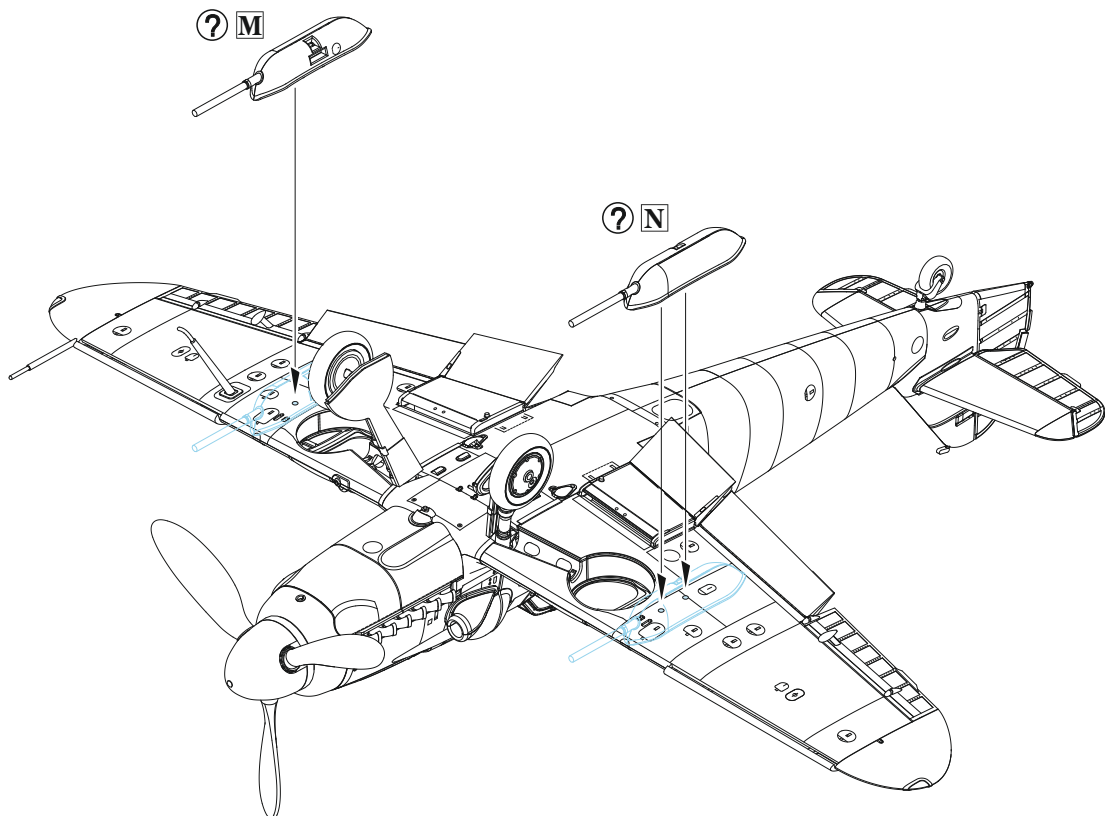
C46 THE C46 PART IS INTENDED AS A REPLACEMENT IN THE CASE OF DAMAGE OF THE PITOT TUBE ON THE PLASTIC PART D2 DURING THE ASSEMBLY

OPEN CANOPY



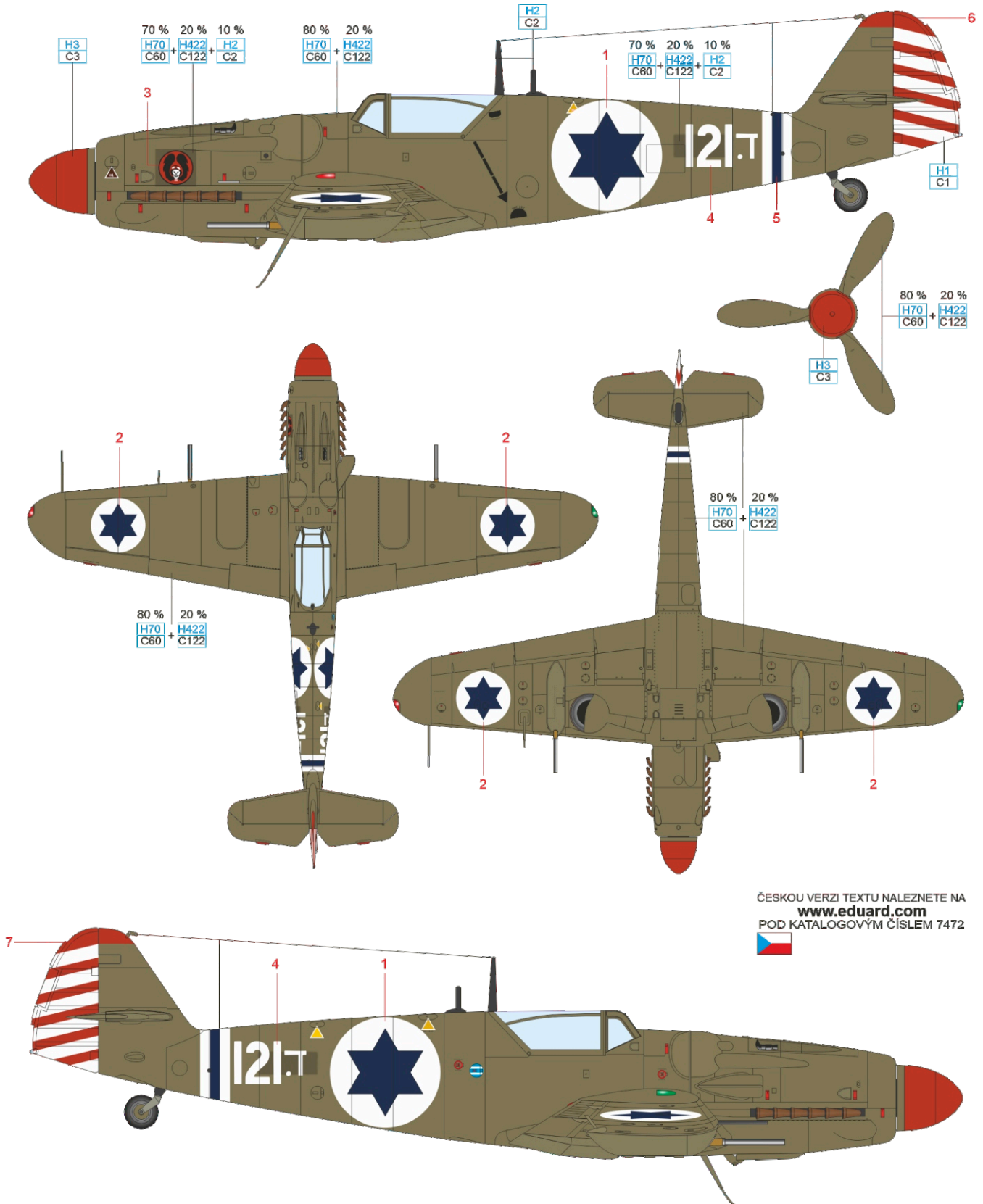


<p>M ? MARKINGS A, B, C ONLY</p>	<p>N ? MARKINGS A, B, C ONLY</p>
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A 101 Squadron (tayeset), Chel Ha Avir, Qastina, Israel, September 1948

This machine with fuselage code dalet 121 was delivered to Israel on July 20, 1948, during Operation Balak, flight No. 70. It made its first flight in Israel the day after delivery and the left side of its nose was subsequently decorated with the emblem of the 101 tayeset (squadron). In preparation for Operation Ten Plagues (October 15 to 22, 1948), later renamed "Yoav", the aircraft were fitted with red paint on the spinner and red and white striping on the rudder in order to distinguish them from the Egyptian Spitfires as the Israeli Air Force also used Spitfires. This marking was applied to all Israeli aircraft, including the S-199s of 101 tayeset. To further differentiate Israeli aircraft the insignia with the Star of David was applied on the upper surfaces of the wing for the first time. They were originally not applied so as to keep the aircraft parked on the ground as invisible from the air as possible. The original small and black-painted dalet 121 was obliterated and changed to larger white one. On September 14, 1948, Bill Pomerantz flipped this aircraft on landing. The "Messer" was repaired and served until the end of the war, on December 22, 1948. In 1950 it was transferred to Tel Nof and scrapped.



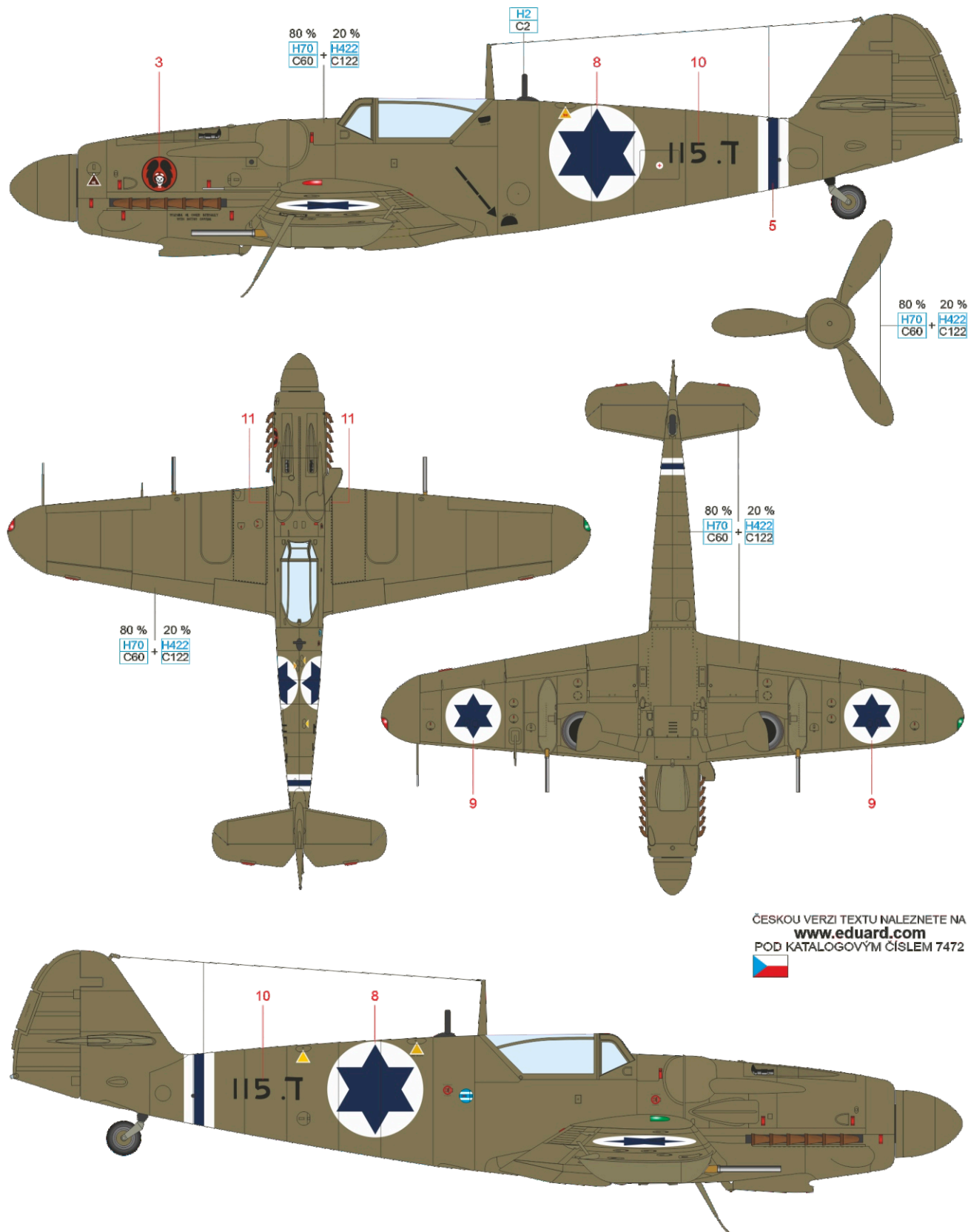
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GRAY H70 C60 LIGHT GREEN H422 C122 WHITE H1 C1 RED H3 C3 BLACK H2 C2

B 101 Squadron (tayeset), Chel Ha Avir, Herzliya field base, Israel, July 1948

This aircraft with fuselage code dalet 115 was delivered to Israel on July 13, 1948, during Operation Balak, flight No. 60. It was fitted with the original oil radiator under the nose and did not sport the additional small bulge on the big gun breech bulges, allowing installation of MG 131 machine guns. It made its first flight in Israel on July 20, 1948, and, like most 101 tayeset aircraft, bore its emblem on the left side of the nose. The dalet 115 designation was of an earlier type in this form, i.e., black, and smaller in size. The aircraft did not have Israeli markings on the upper wing surfaces and did not live to see their application as Alexander Jacobs crashed it heavily on landing on September 8, 1948. The aircraft was heavily damaged and written off. "Sandy" Jacobs was one of the experienced Israeli pilots, and he was one of those who retrained on the S-199 in České Budějovice, Czechoslovakia.



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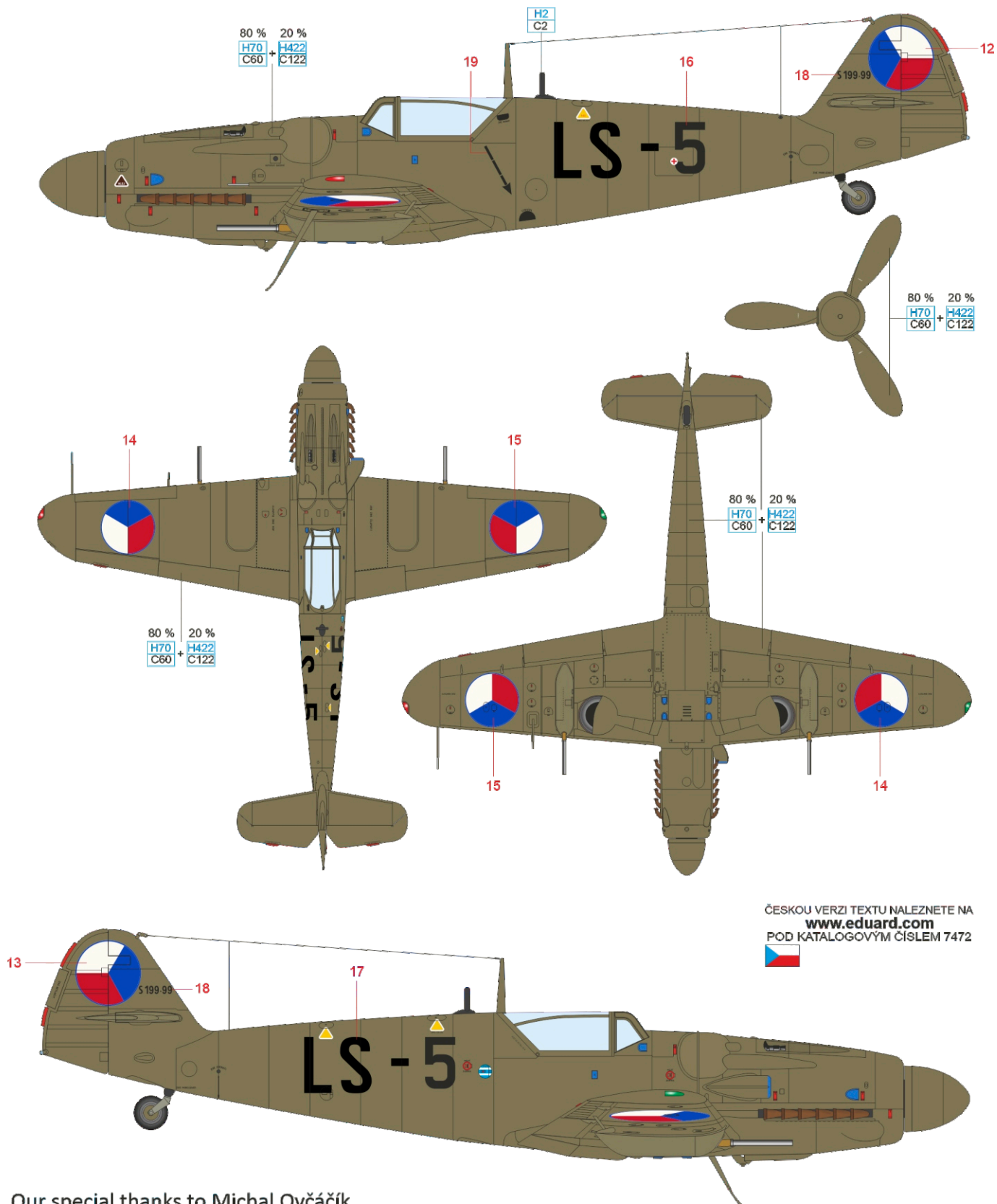


GRAY H70
C60 LIGHT GREEN H422
C122 BLACK H2
C2

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C S-199.99, 1st Squadron, Air Regiment 8, 3 Air Division, Brno-Černovice, Czechoslovakia, 1950/51

This aircraft was test-flown on May 31, 1948, by factory pilot Antonín Kraus. Two months later it was assigned to the 1st squadron of Air Regiment 8. At the end of September 1949, it was transferred to Air Regiment 3, then crashed on October 28 at Medlánky airfield with pilot por. (Lt) Vlastimil Fabiánek in the cockpit. After repair in Kunovice factory it was assigned to the previous aviation regiment again and was damaged on March 16, 1951, by rt. (F/Sgt) Zdeněk Ostrčil. From summer 1952 the aircraft was assigned to the 18 Air Regiment based at Plzeň-Skvrňany airfield and from January 1953 it served with the 51 Air Regiment there. The aircraft was painted in the original lighter greyish green color and was one of the S-199s armed with cannons in underwing pods boosting the firepower of the two fuselage machine guns.



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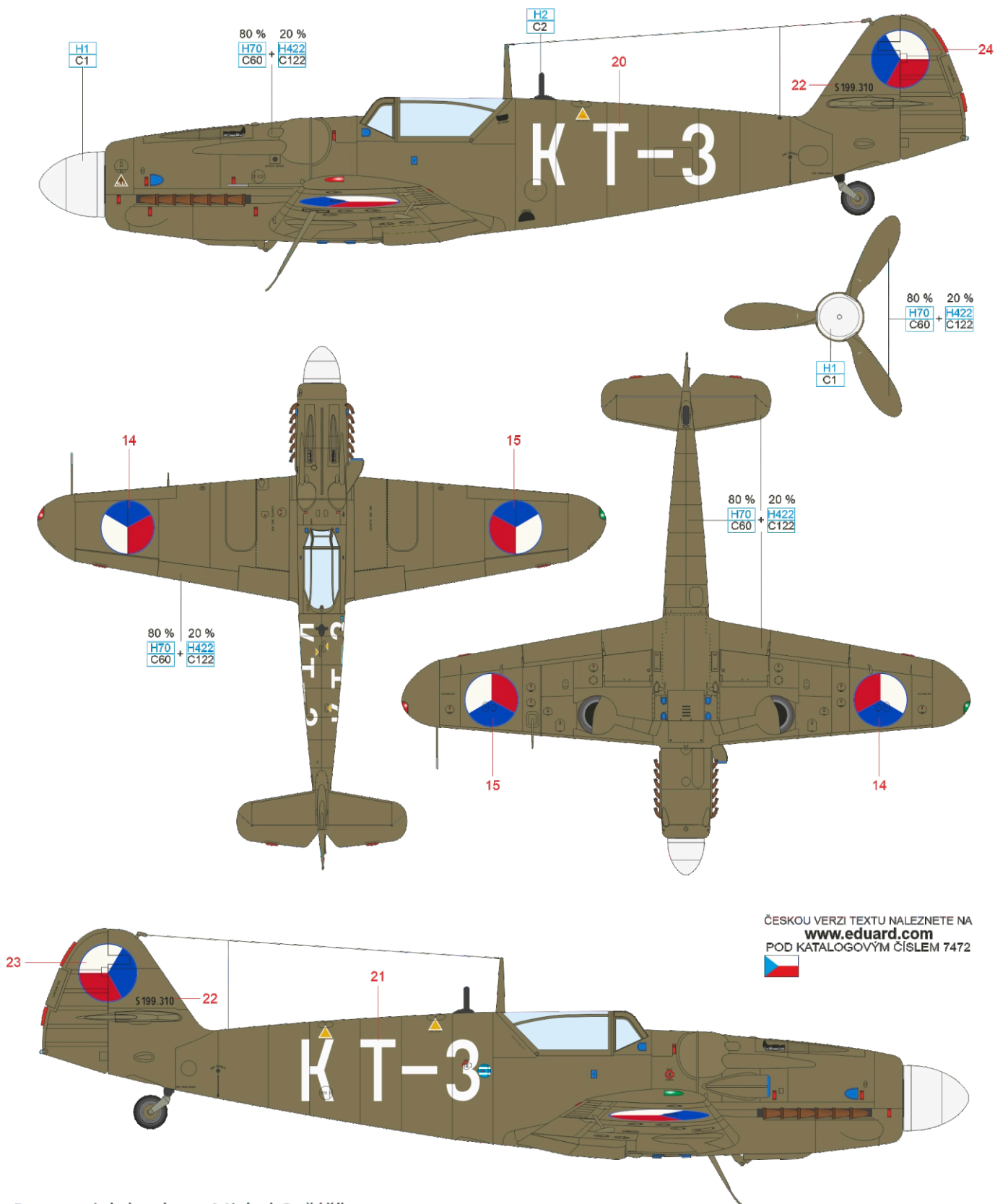
Our special thanks to Michal Ovčáčík
for his invaluable input and cooperation.

GRAY H70 C60 LIGHT GREEN H422 C122 BLACK H2 C2

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D S-199.310, 3rd Squadron, Air Regiment 7, 3 Air Division, Brno-Černovice, Czechoslovakia, spring 1949

The aircraft from Aero production (an example without wing armament) was assigned to Air Regiment 7 in Brno-Černovice in August 1948. It became an aircraft of the staff flight but was later assigned to the 3rd Squadron. The aircraft had a greyish green painting, while its spinner was painted white. On May 30, 1949, it was damaged in emergency landing near Boskovice with rt. (F/Sgt) Karel Kessler behind the controls. In the autumn of 1950, during overhaul in Kunovice factory, the original hinged canopy of the "Erla" type was replaced with a sliding bubble one. As such, already with the 5 Air School Regiment and with UL-51 fuselage code, it was damaged during take-off from Zvolen airport on August 26, 1952.



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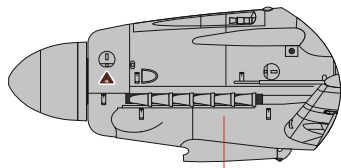
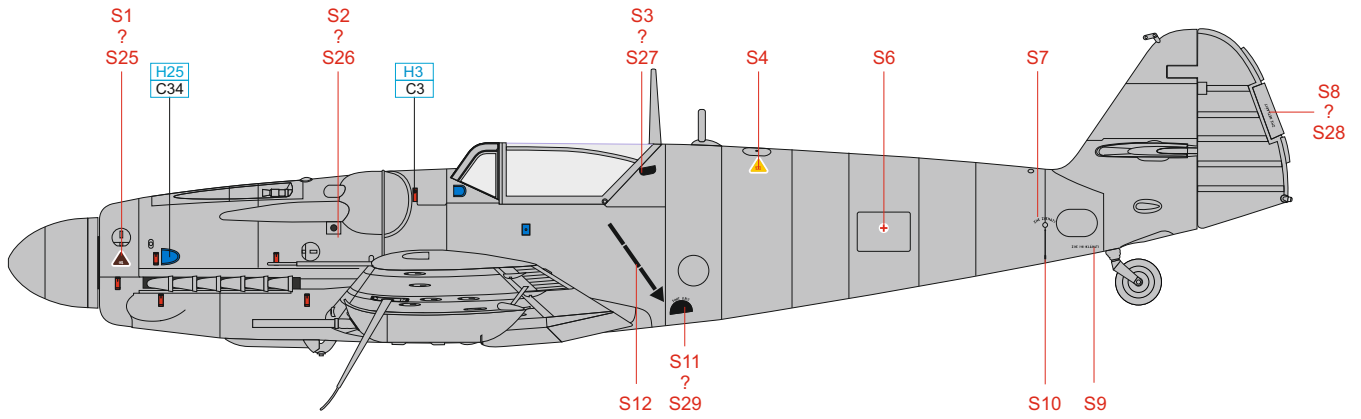


Our special thanks to Michal Ovčáčík
 for his invaluable input and cooperation.

GRAY H70 C60 LIGHT GREEN H422 C122 WHITE H1 C1 BLACK H2 C2

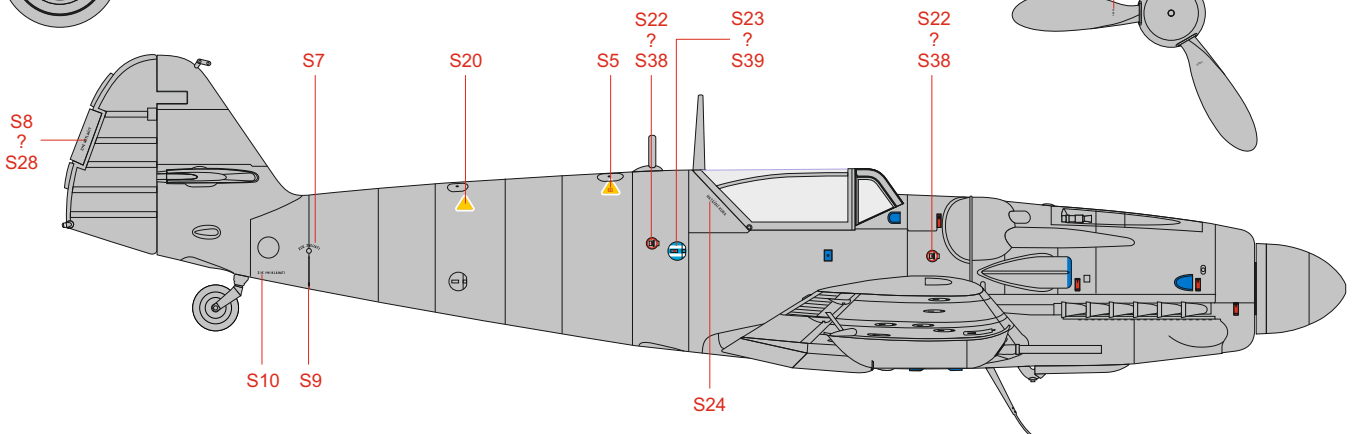
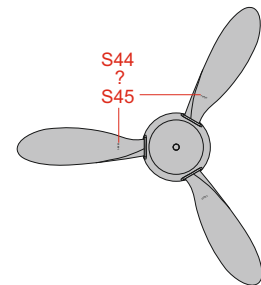
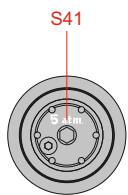
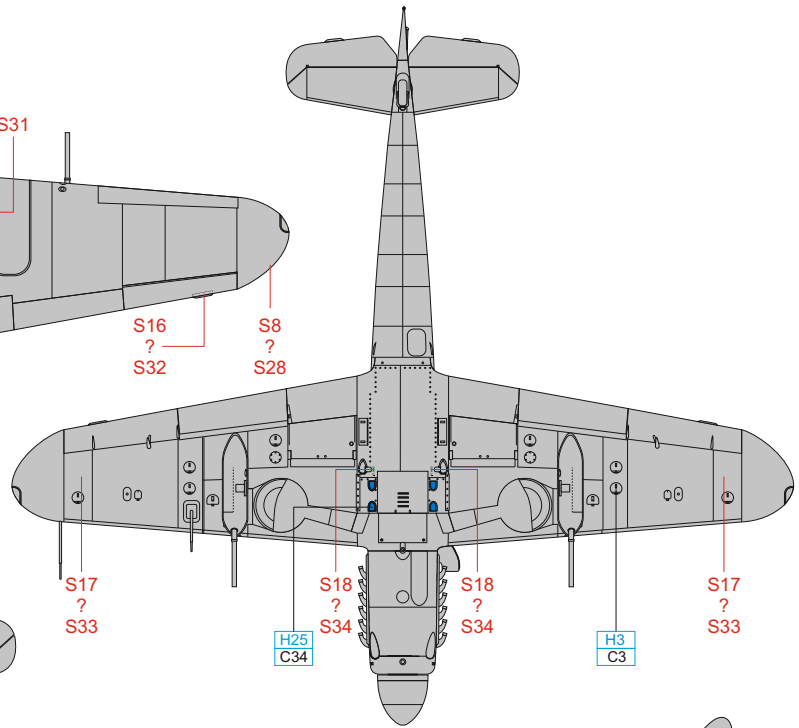
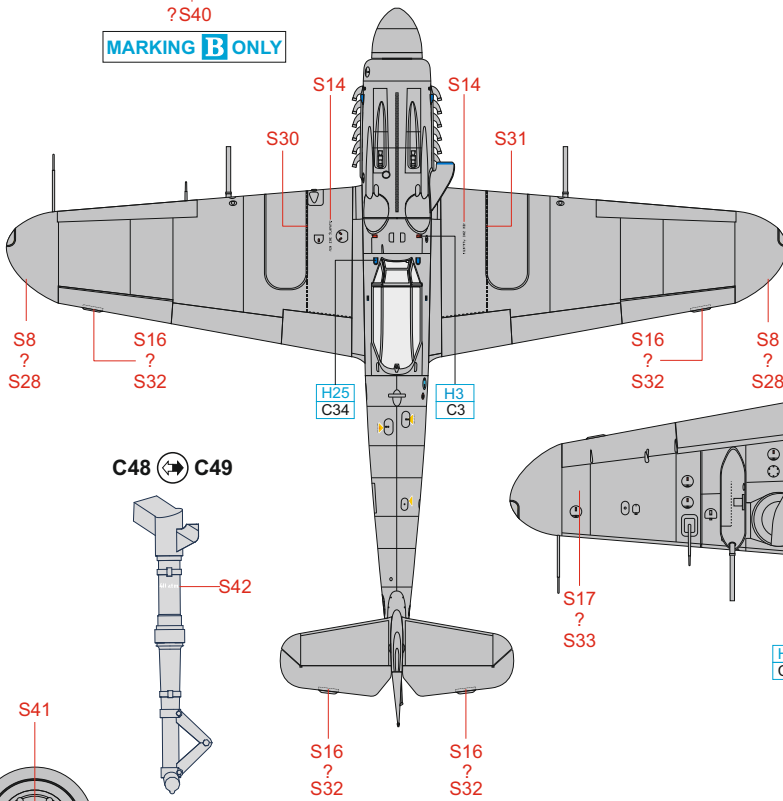
Avia S-199 ERLA canopy

STENCILING POSITIONS



?S40
MARKING B ONLY

decal	MARKING	decal	MARKING	decal	MARKING	decal	MARKING	decal	MARKING
S25b	A, B	S4b	A, B	S5c	A, B, D	S20b	A, B, D	S39	A, B
S1a	C	S4d	C	S5d	C	S20a	C	S23	C, D
S1b	D	S4c	D						



Eduard goodies for Avia S-199 ERLA canopy

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- SS815 S-199 Erla canopy Weekend (PE-Set)
- 672284 S-199 exhaust stacks PRINT (Brassin)
- 672285 S-199 wheels PRINT (Brassin)
- 672288 S-199 cockpit Erla canopy PRINT (Brassin)
- 672293 S-199 4xETC 50 rack w/bombs (Brassin)
- 672294 S-199 engine PRINT (Brassin)
- 3DL72008 S-199 SPACE (3D Decal Set)
- D72038 S-199 Czechoslovak national insignia (Decal Set)
- D72039 S-199 Israeli national insignia (Decal Set)
- D72040 S-199 Czechoslovak stencils (Decal Set)
- D72041 S-199 Israeli stencils (Decal Set)
- CX656 S-199 Erla canopy Weekend (Mask)

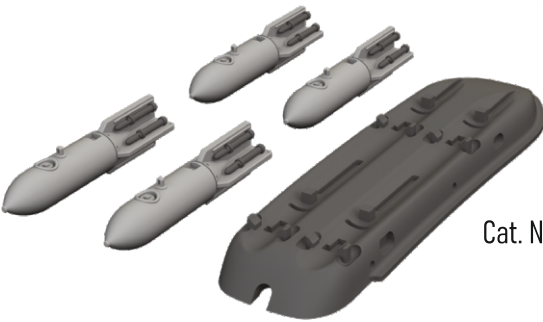
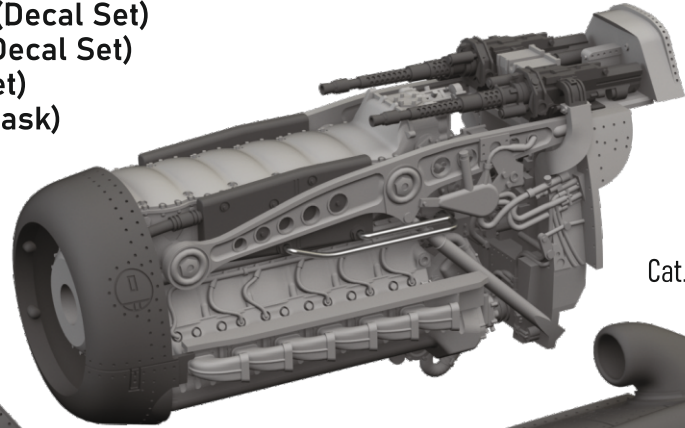
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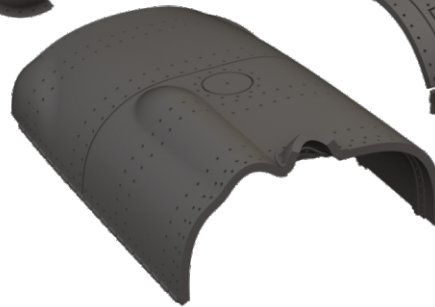
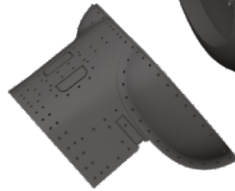
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Cat. No. 672294



Cat. No. 672293



Cat. No. 672288

