

# Avia S-199 bubble canopy

eduard

1/72 Scale Plastic Model Kit

**WEEKEND**  
edition



item # 7471

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. Gradual modifications were made during production.

### This kit: Avia S-199 bubble 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. This design was, by the way, a takeover of the German development. Also, the angle of the wheels was 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 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 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. SYMBOL \* 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

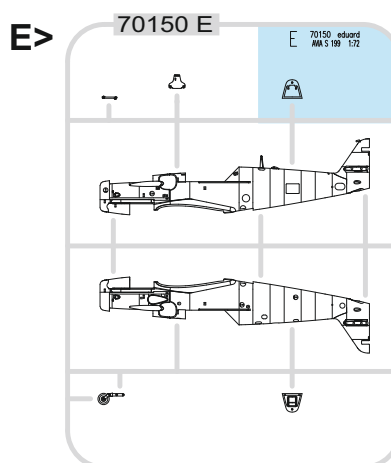
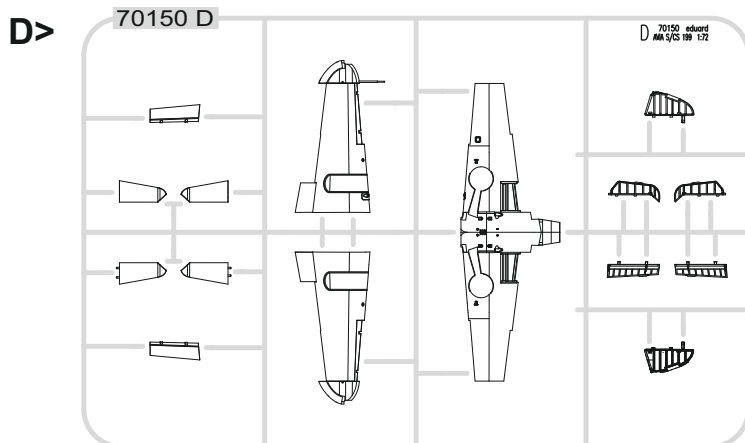
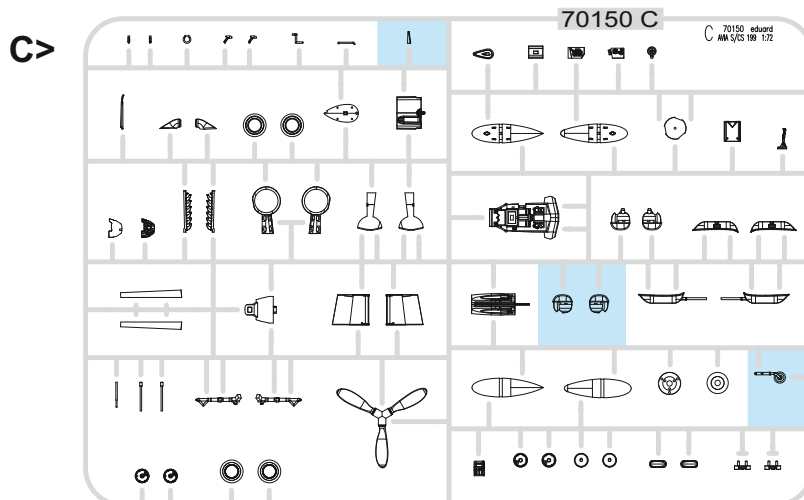
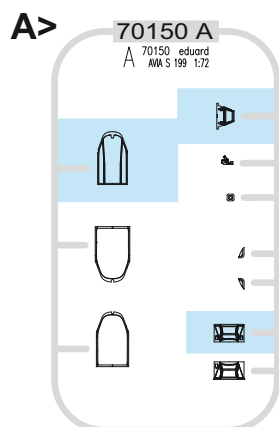


PIÈCES



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



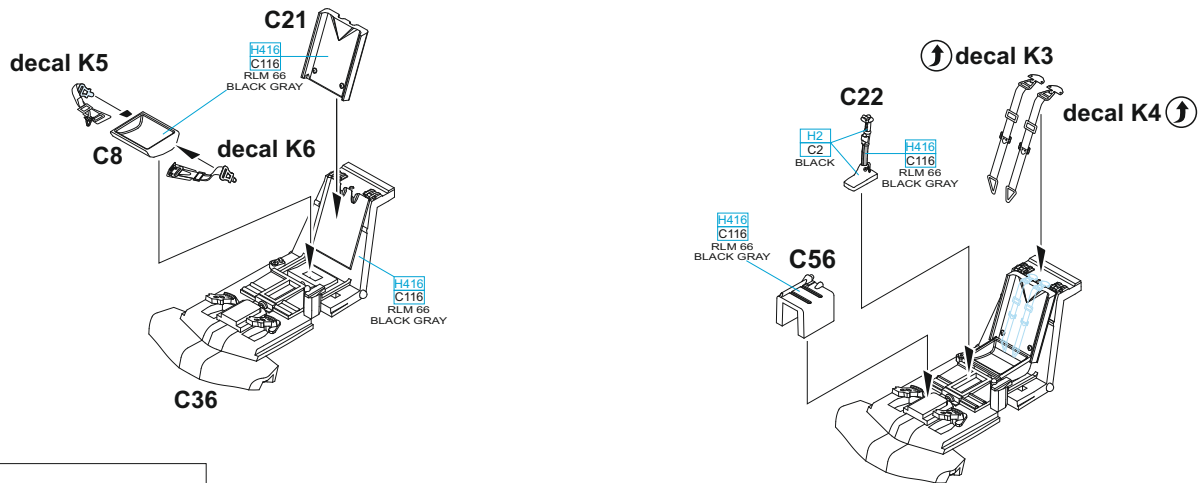
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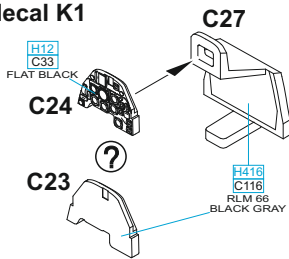
色

GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
[H2]	[C2]	BLACK
[H3]	[C3]	RED
[H11]	[C62]	FLAT WHITE
[H12]	[C33]	FLAT BLACK
[H25]	[C34]	SKY BLUE
[H43]	[C100]	WINE REDT
[H69]	[C37]	GRAY
[H70]	[C60]	GRAY
[H77]	[C137]	TIRE BLACK
[H90]	[C47]	CLEAR RED
[H94]	[C138]	CLEAR GREEN

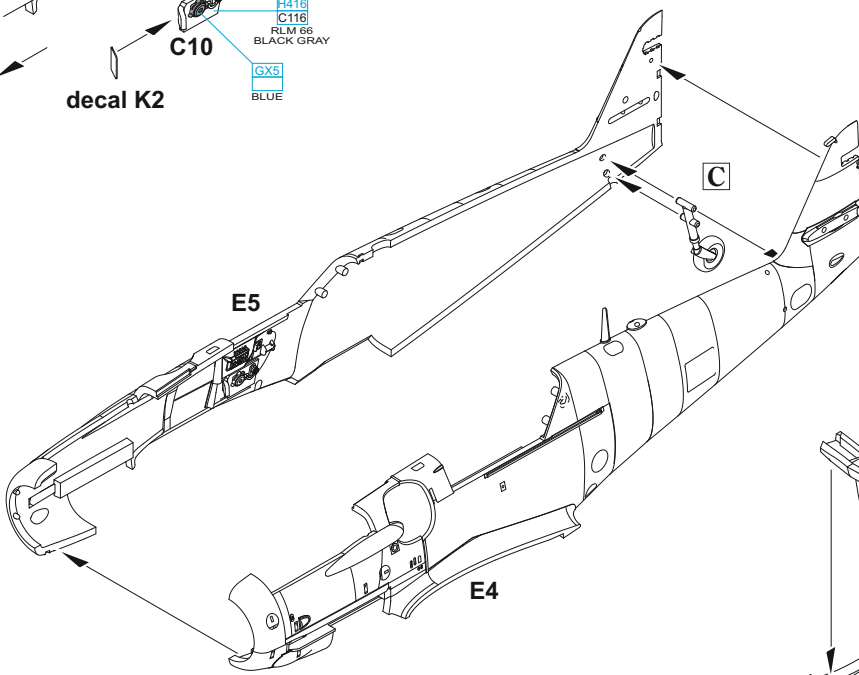
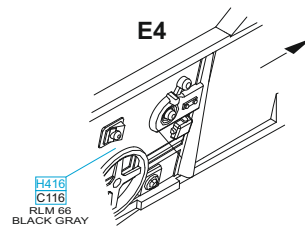
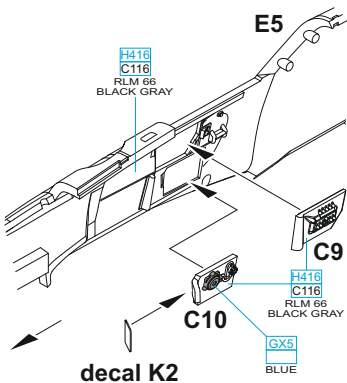
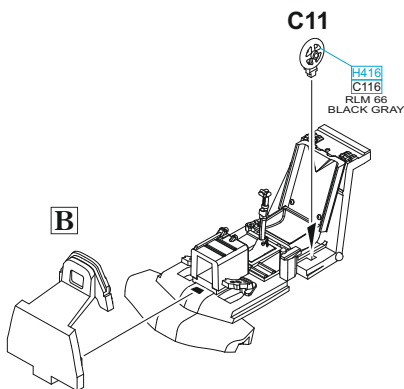
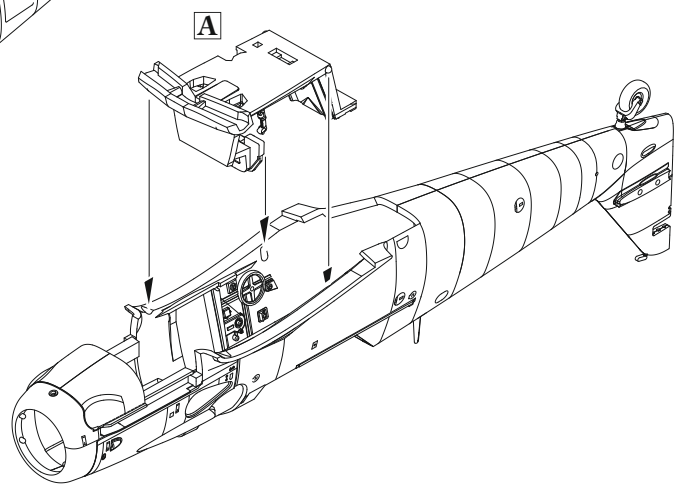
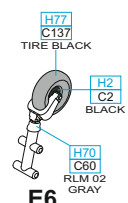
GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
[H324]	[C324]	LIGHT GRAY
[H416]	[C116]	BLACK GRAY
[H421]	[C121]	GREEN
[H422]	[C122]	LIGHT GREEN
Mr.METAL COLOR		
[MC214]		DARK IRON
Mr.COLOR SUPER METALLIC		
[SM201]		SUPER FINE SILVER
Mr.COLOR GX		
[GX05]		SUSIE BLUE

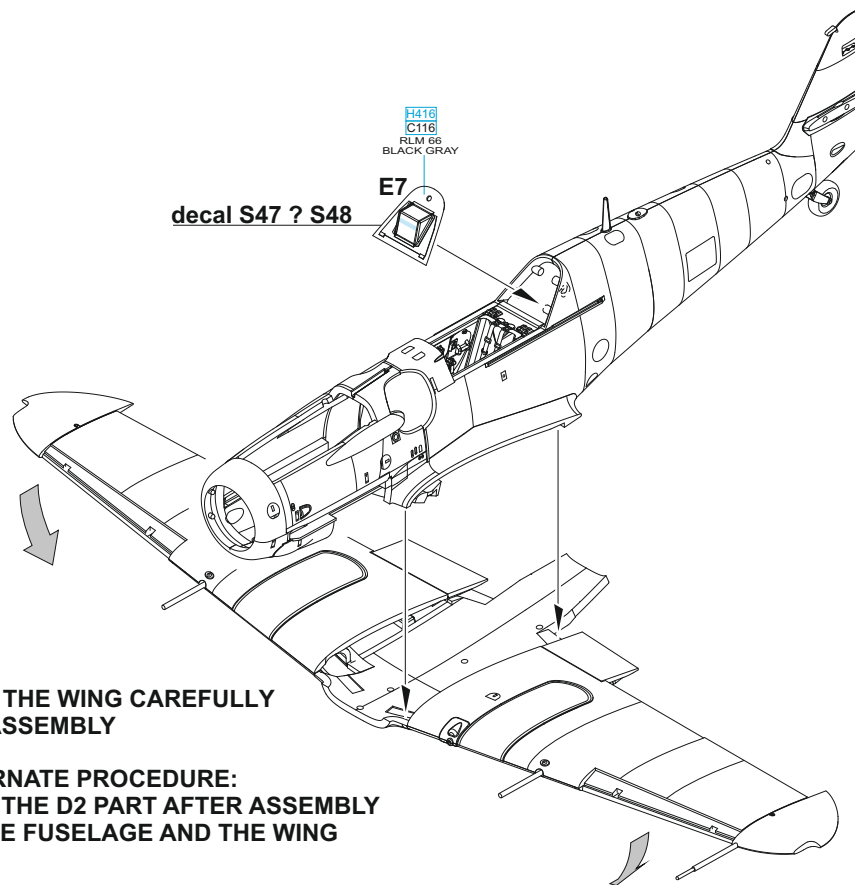
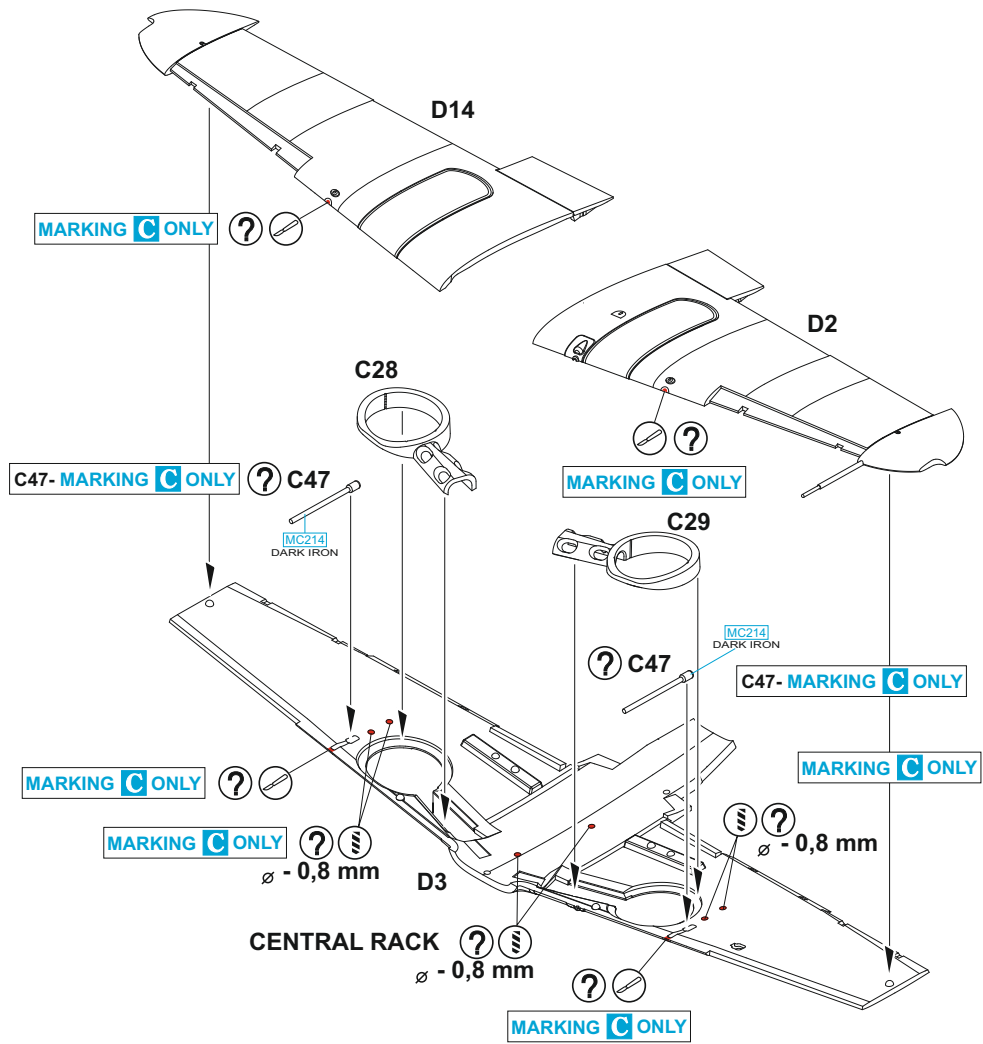
**A****B**

**OPTIONAL:  
decal K1**

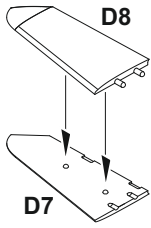


**OPTIONAL:  
decal K1**

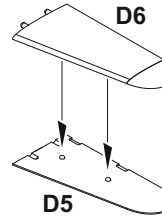
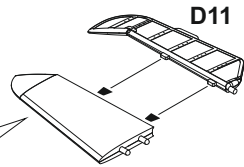
**C**



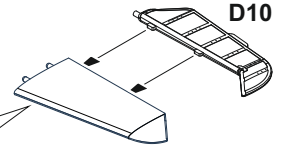




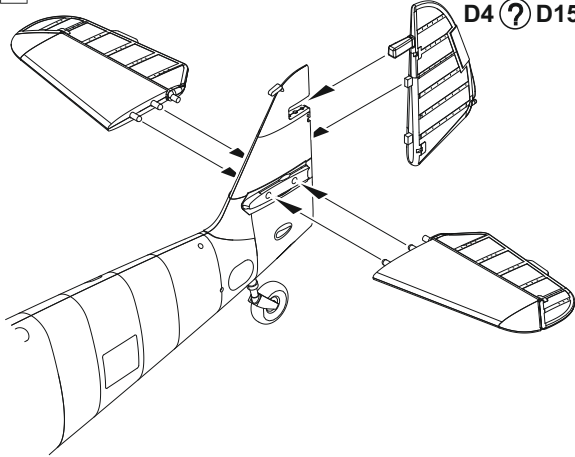
**D**



**E**



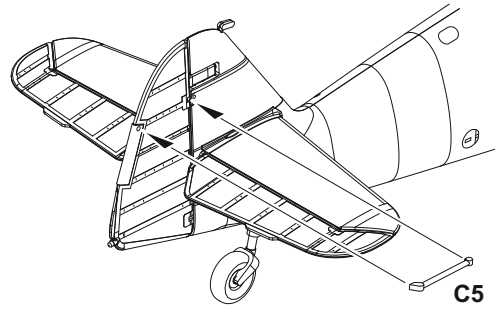
**D**



D4 ? D15

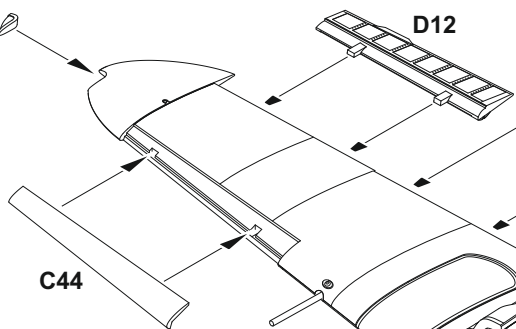
D15 - MARKING **C** ONLY

**E**



C5

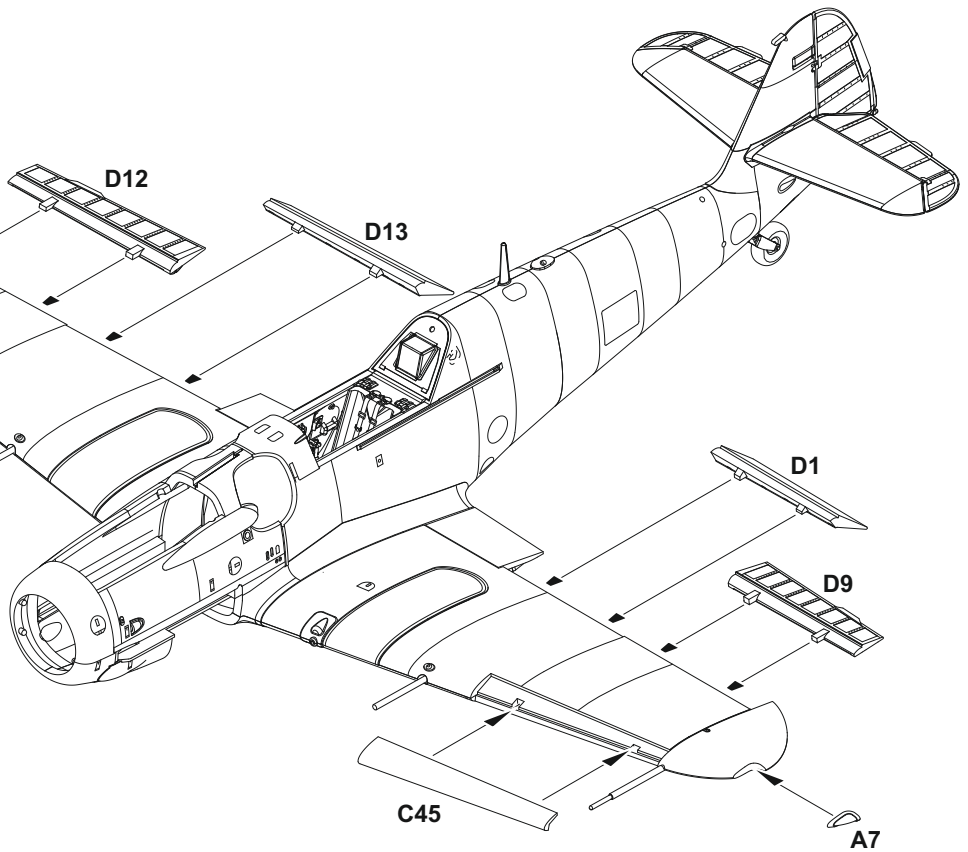
A6



C44

D12

D13

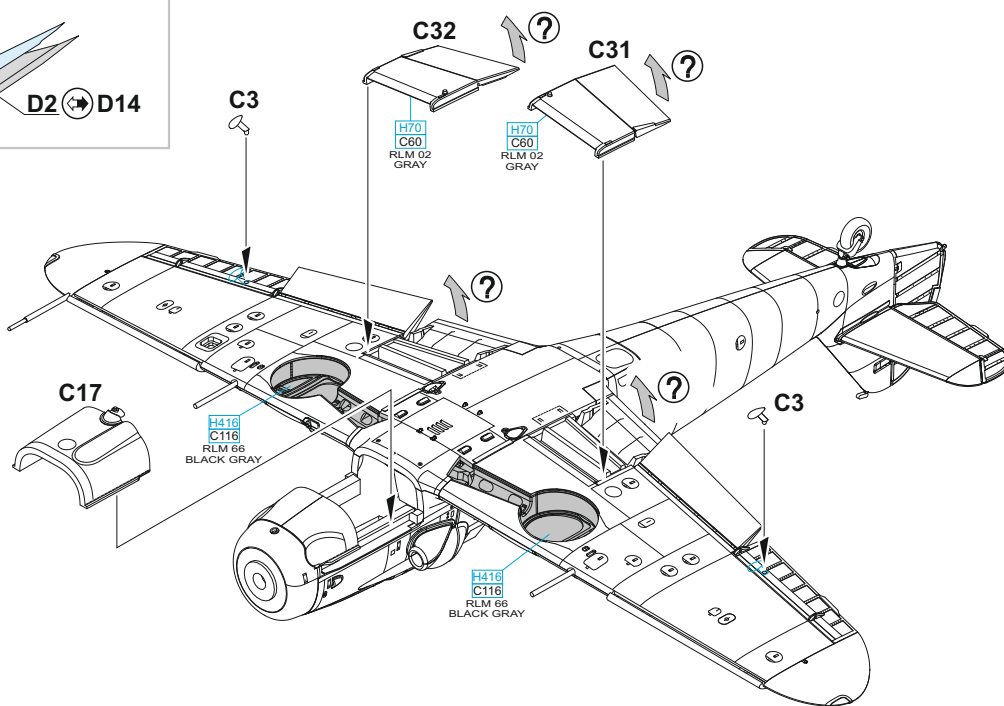
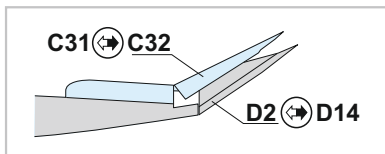
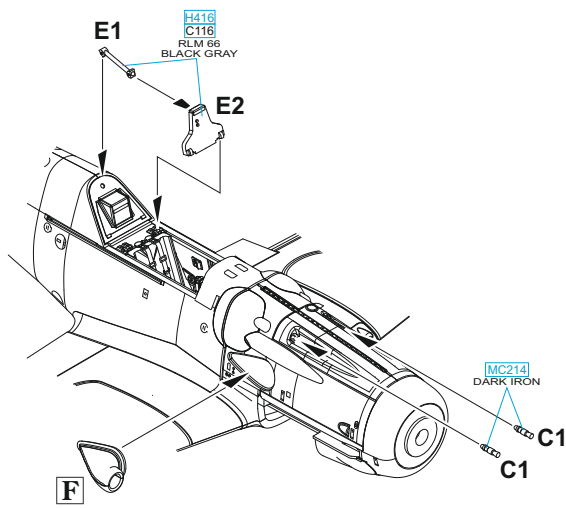
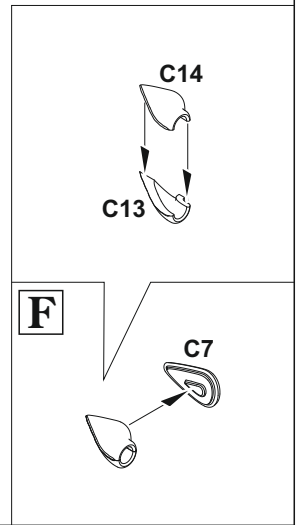
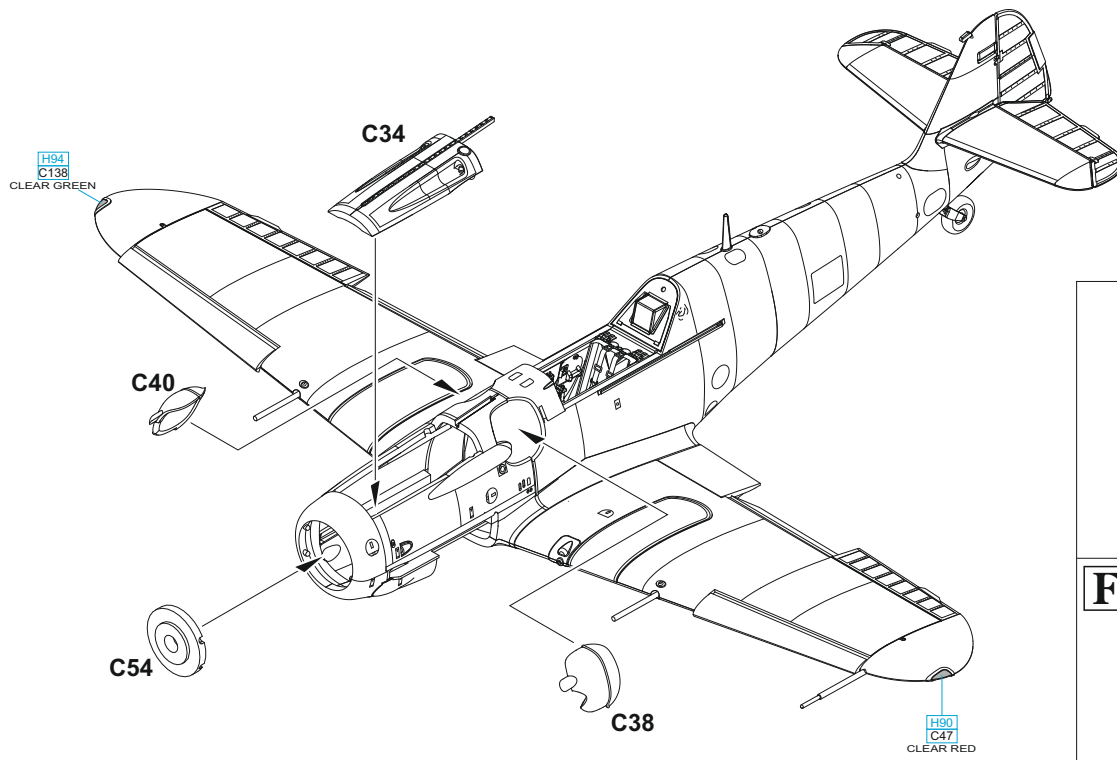


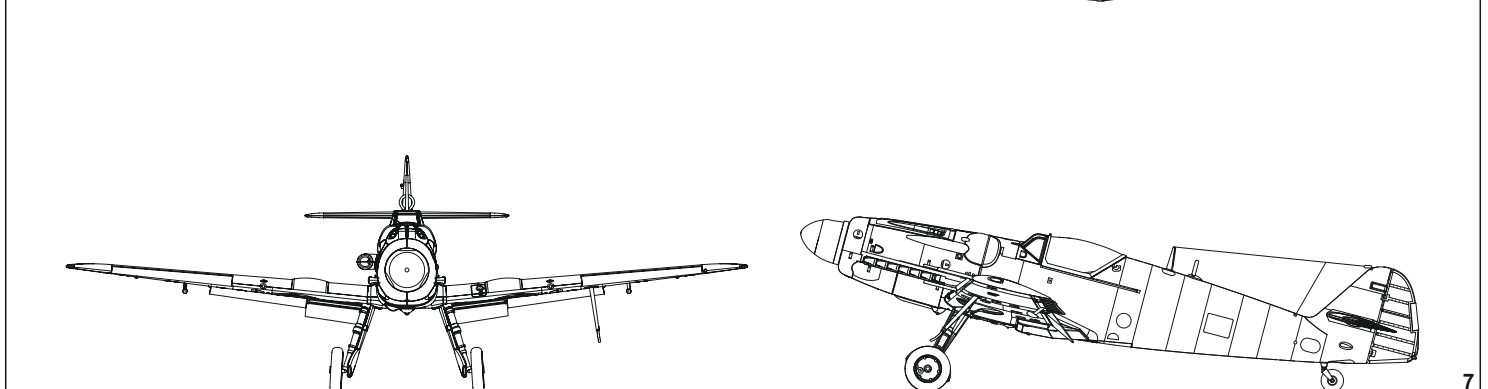
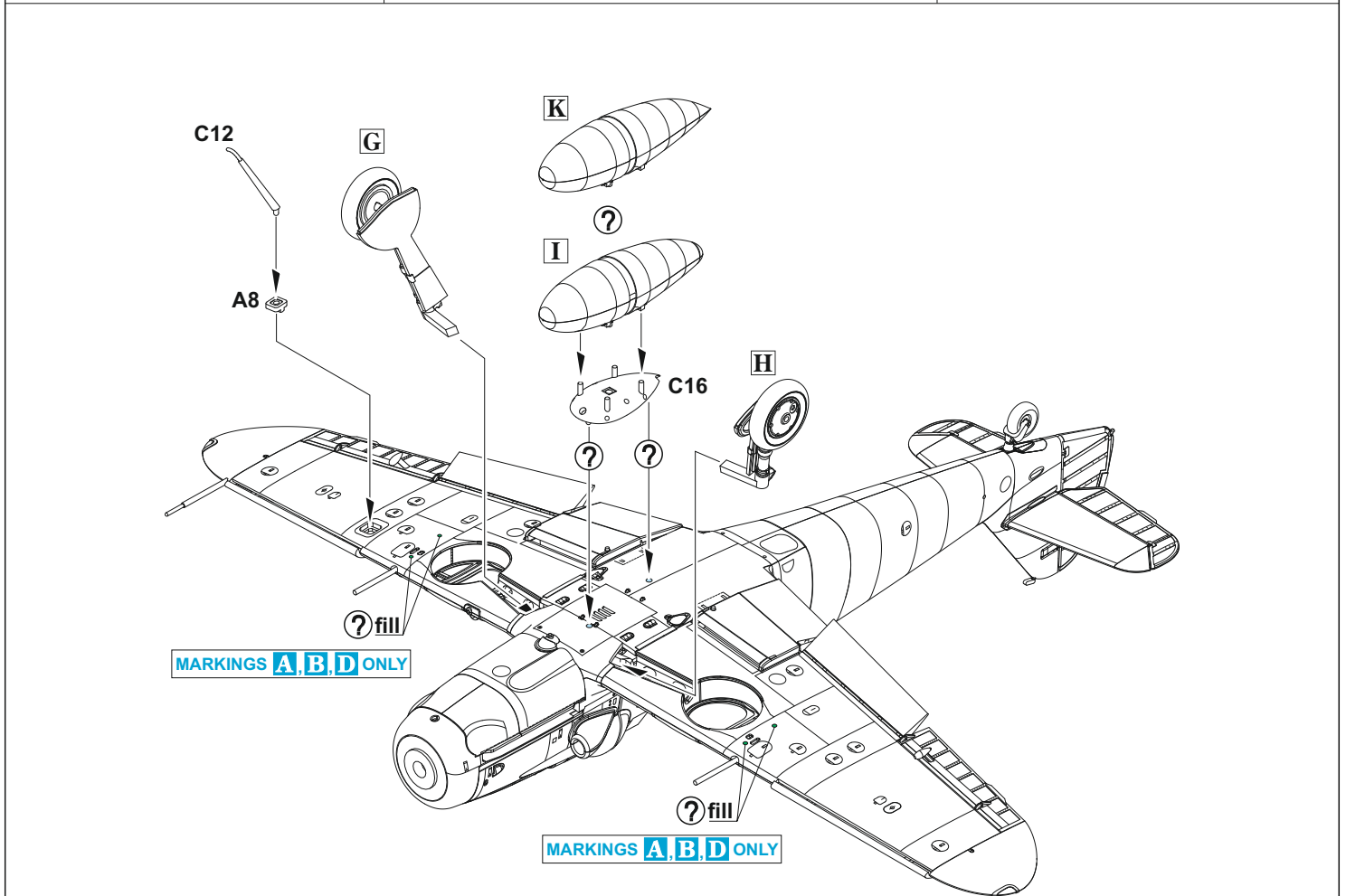
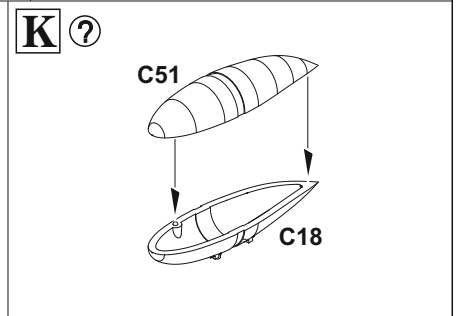
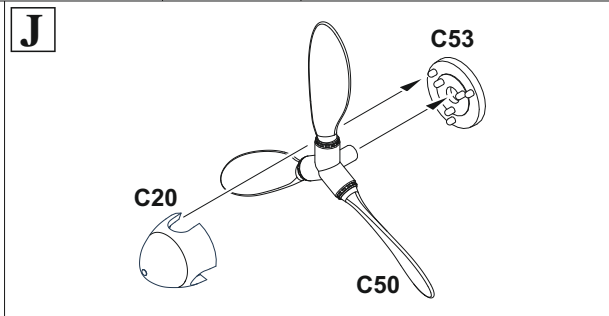
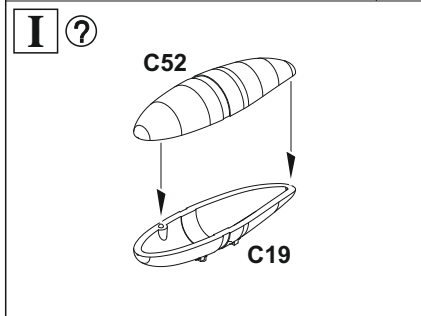
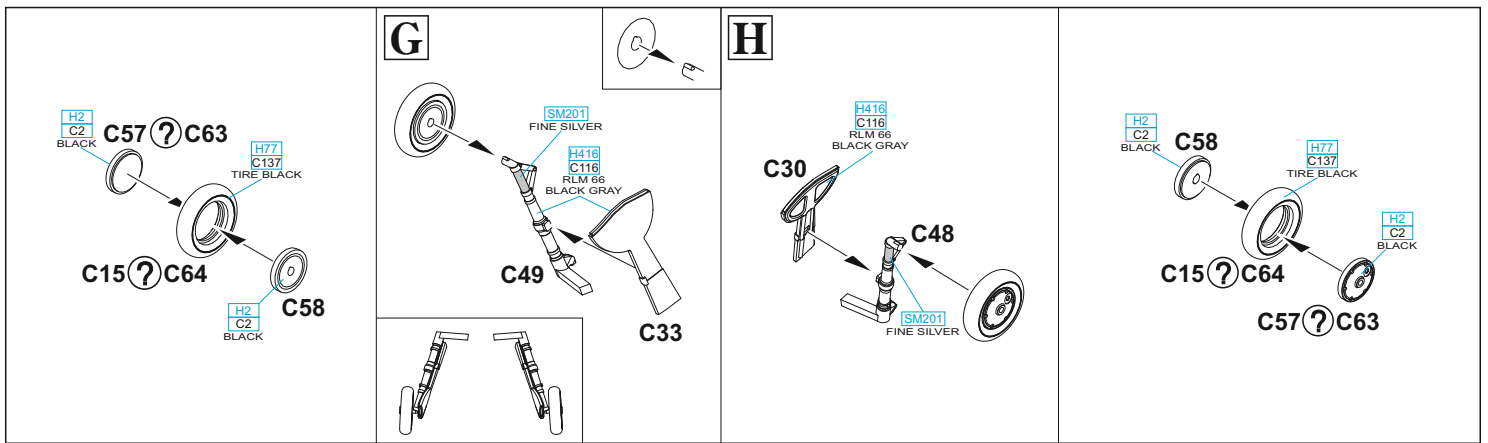
D1

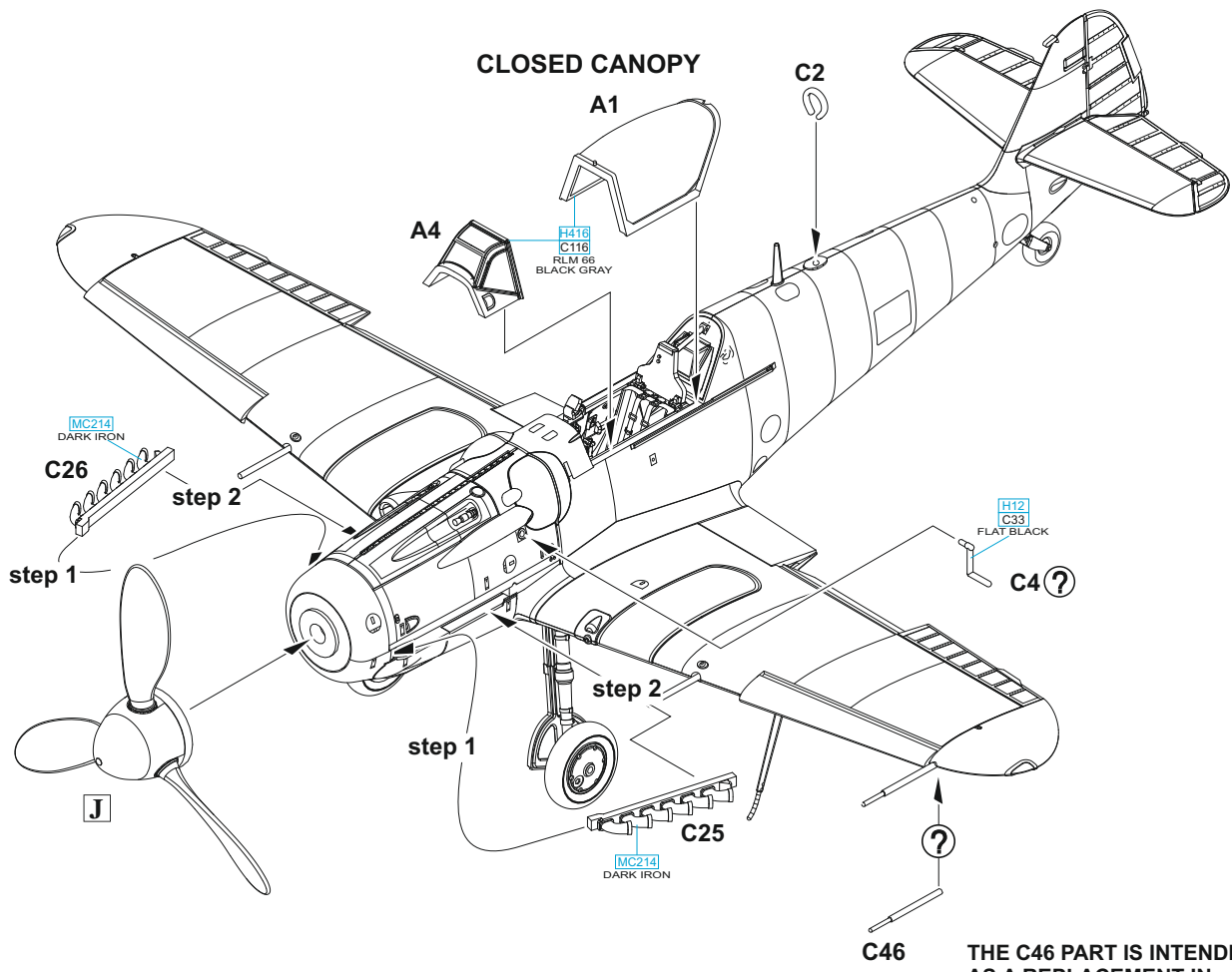
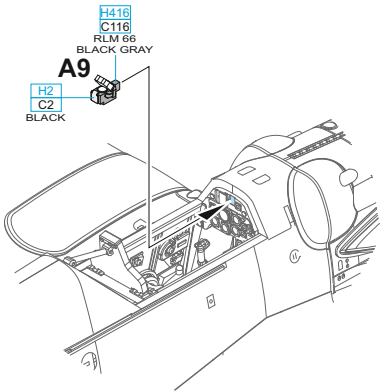
D9

C45

A7

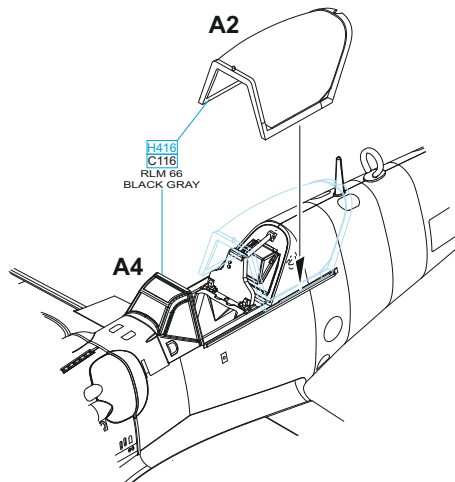


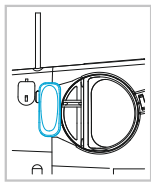




**C46** THE C46 PART IS INTENDED AS A REPLACEMENT IN THE CASE OF DAMAGE OF THE PITOT TUBE ON THE PLASTIC PART D2 DURING THE ASSEMBLY

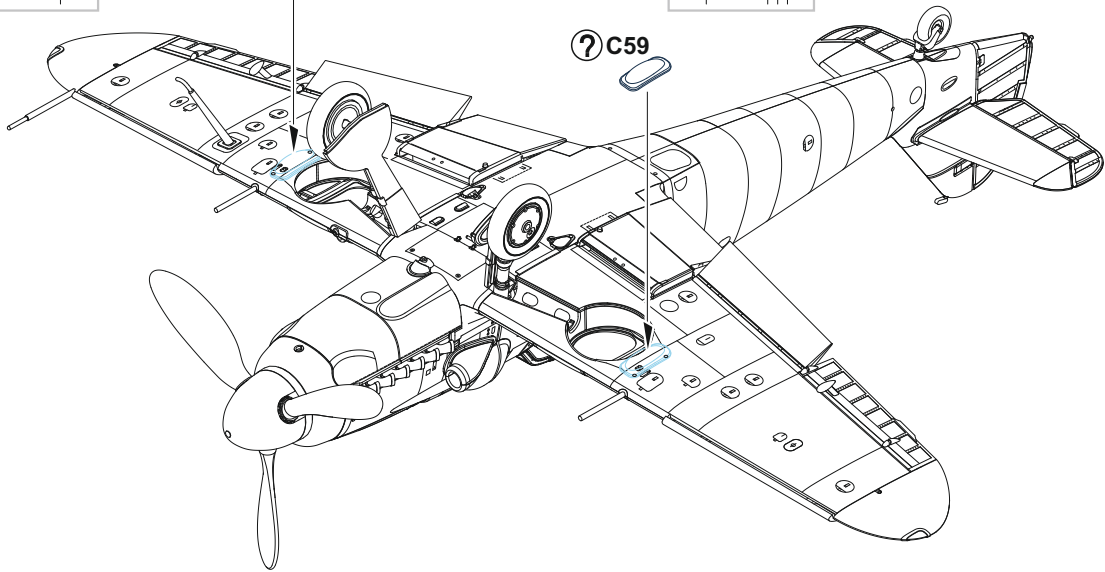
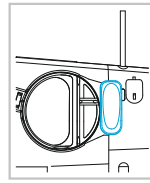
**OPEN CANOPY**

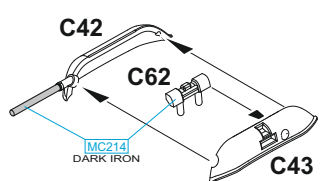
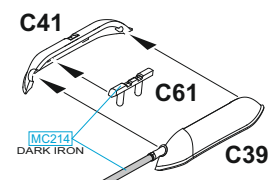


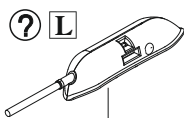


? C60

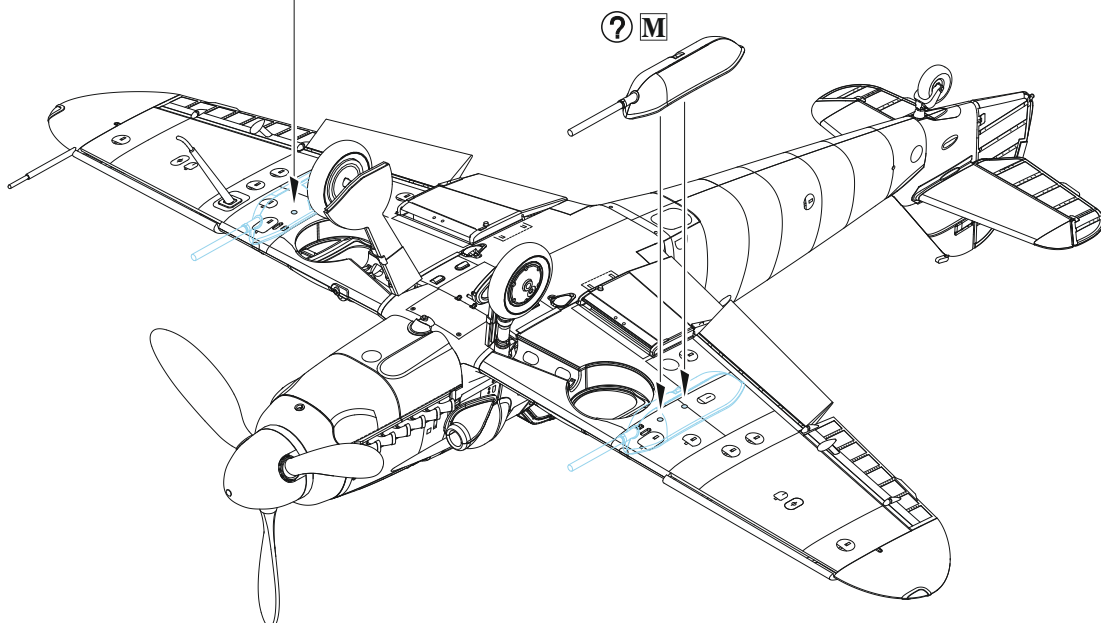
MARKING C ONLY



<p><b>L</b> ? MARKINGS A, B ONLY</p>  <p>C42 C62 MC214 DARK IRON C43</p>	<p><b>M</b> ? MARKINGS A, B ONLY</p>  <p>C41 C61 MC214 DARK IRON C39</p>
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? L

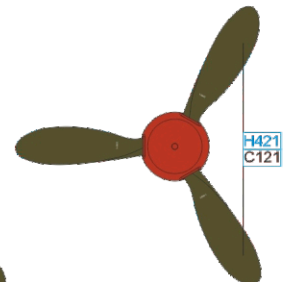
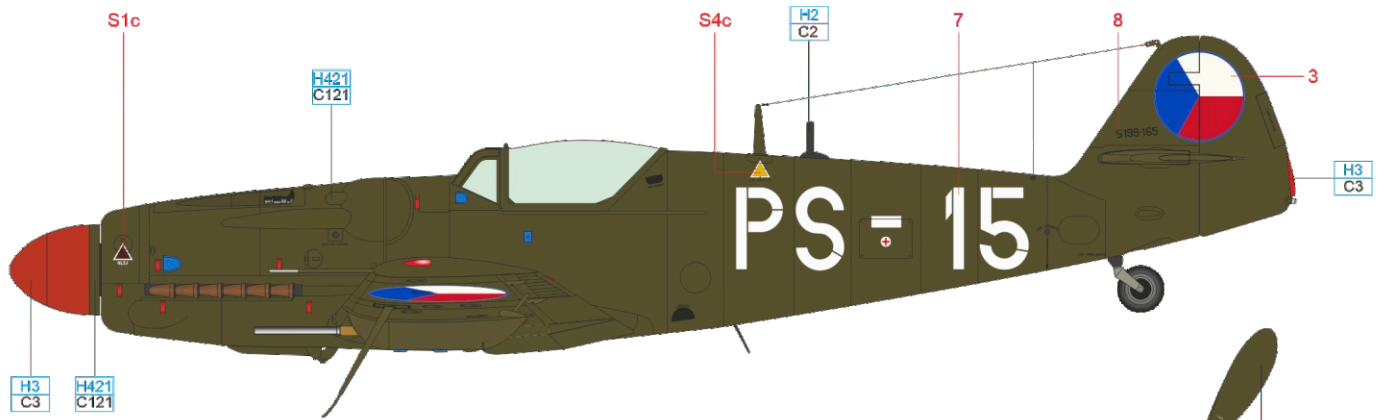


? M

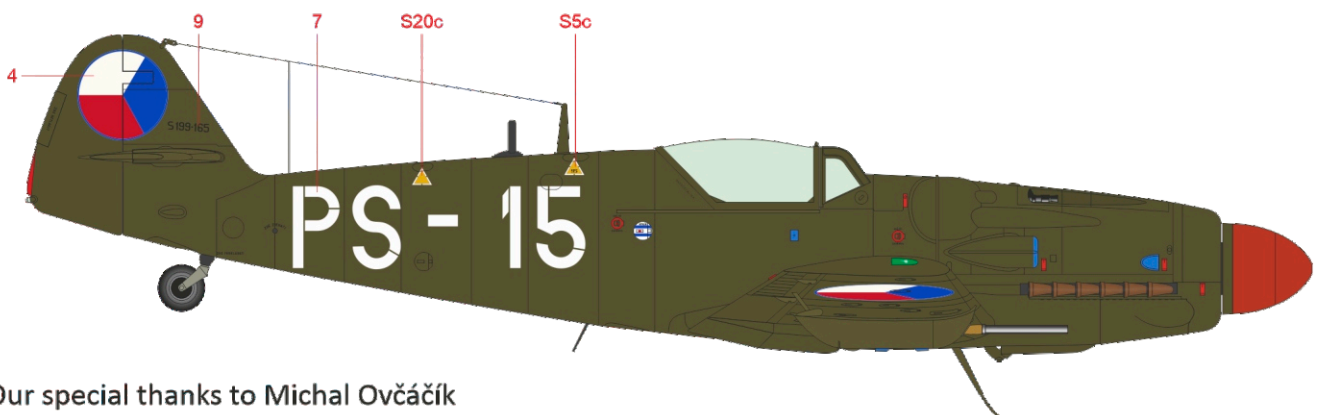
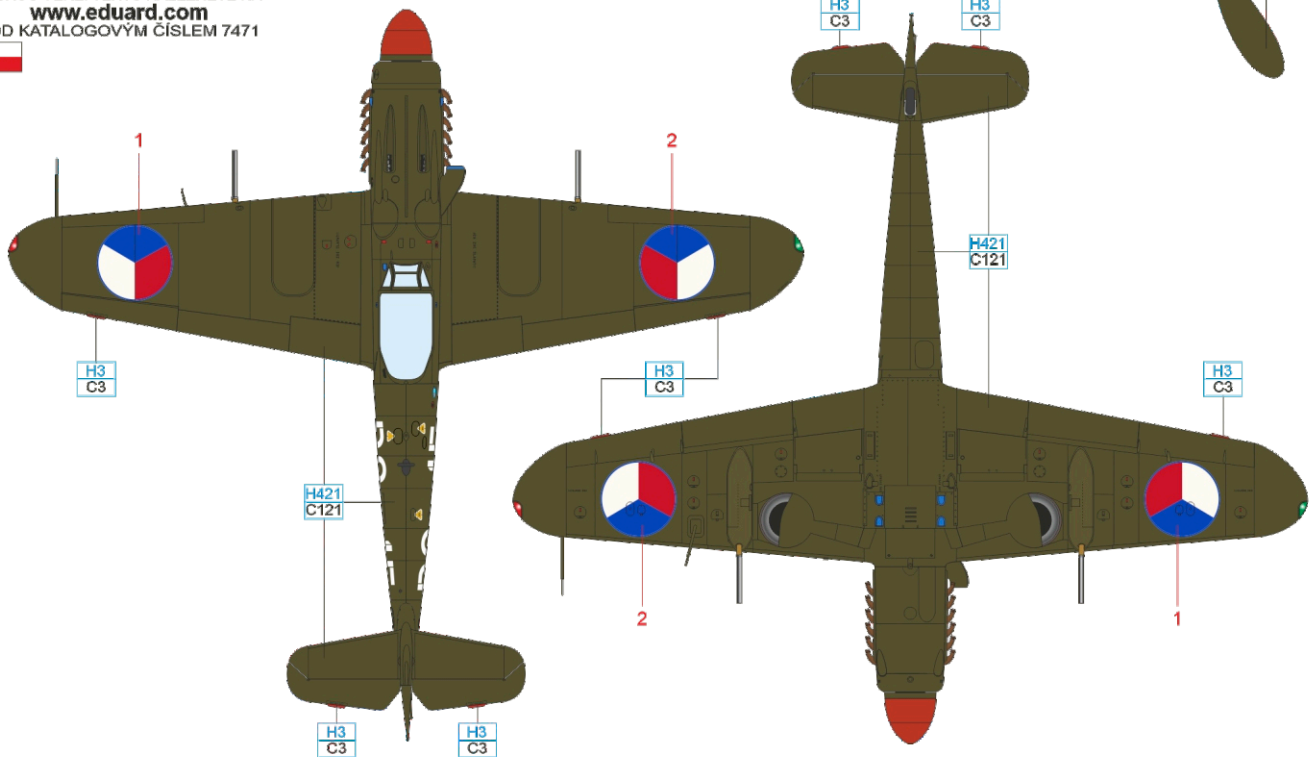


# A S-199.165, 1 Squadron, 18 Aviation Regiment, Plzeň-Skvrňany, Czechoslovakia, July 1952

This aircraft was test-flown at the end of October 1948 by the factory pilot Petr Široký and on November 23 it was flown to the designated Pilsen Aviation Regiment 4. On March 19, 1950, the aircraft was damaged, subsequently repaired and reassigned to the unit in mid-July of the same year. From April 1952 it was used by the 1 Squadron of the 18 Aviation Regiment at the Plzeň-Skvrňany airfield. On July 23, 1952, this Avia, codenamed PS-15, was flown by Lt. Vladislav Petráš who was performing a training flight. During it, a technical malfunction occurred, and the pilot had to make an emergency belly-landing near Trhové Dušnice, Příbram district. In such a landing, the aircraft suffered only minor damage, especially to the propeller blades and was subsequently repaired.



ČESKOU VERZI TEXTU NALEZNETE NA  
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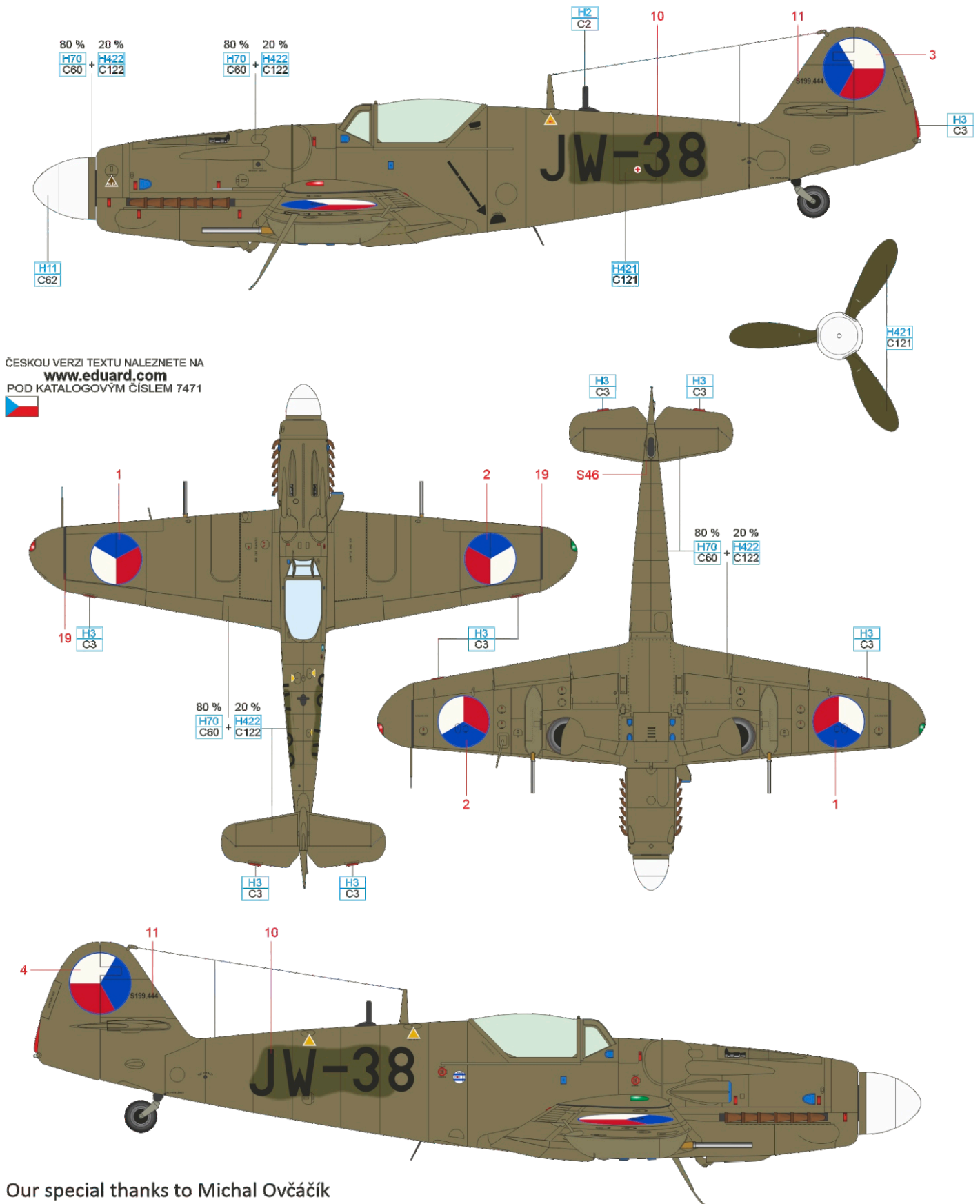


Our special thanks to Michal Ovčáčík  
 for his invaluable input and cooperation.

GREEN H421 C121 BLACK H2 C2 RED H3 C3

# B S-199.444, 2 Squadron, 1 Aviation Regiment, 3 Air Division, Praha-Kbely, Czechoslovakia, April 1951

The aircraft serial number 444 was test-flown by factory pilot Antonín Kraus on September 5, 1949 and from the end of August 1950 it served with the Aviation Regiment 1. In April 1951 it was operated by its 2 squadron in Prague-Kbely, where it bore the designation JW-38. On April 21, 1951, the pilot of this aircraft, rt. (TSgt) Jiří Klempíř crashed at the Letňany airfield as the aircraft bounced on a terrain wave and fell from the height to the ground during take-off. The short career of this "Mezek" (Mule) was ended in mid-June 1951, when the operation was accountably terminated, and the aircraft was subsequently scrapped.



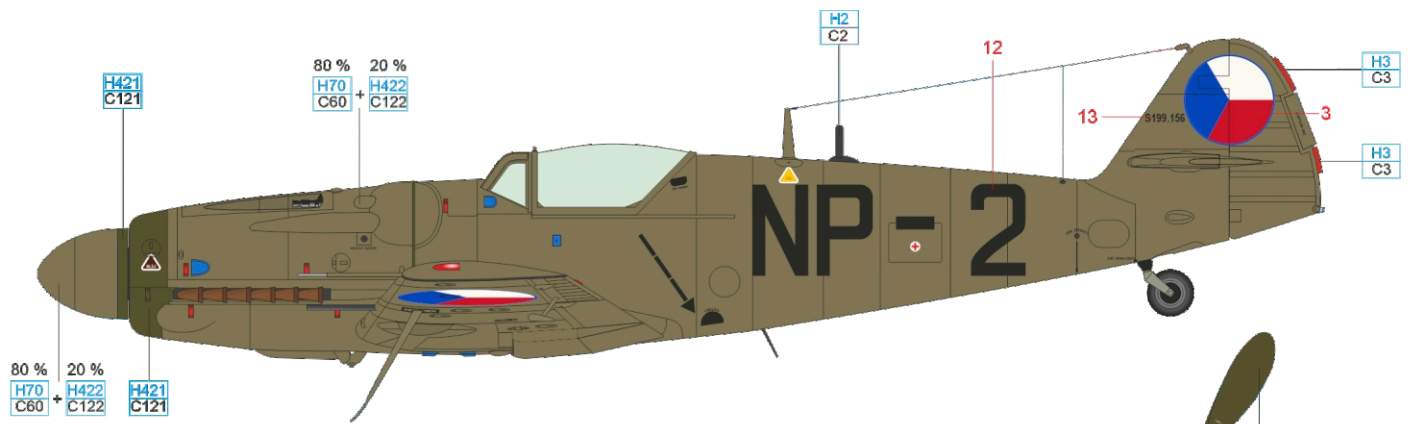
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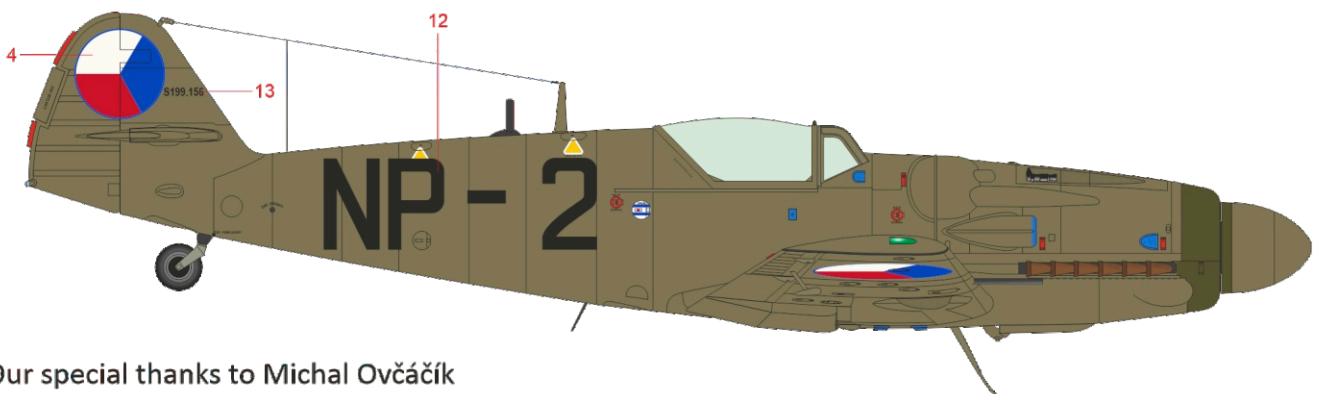
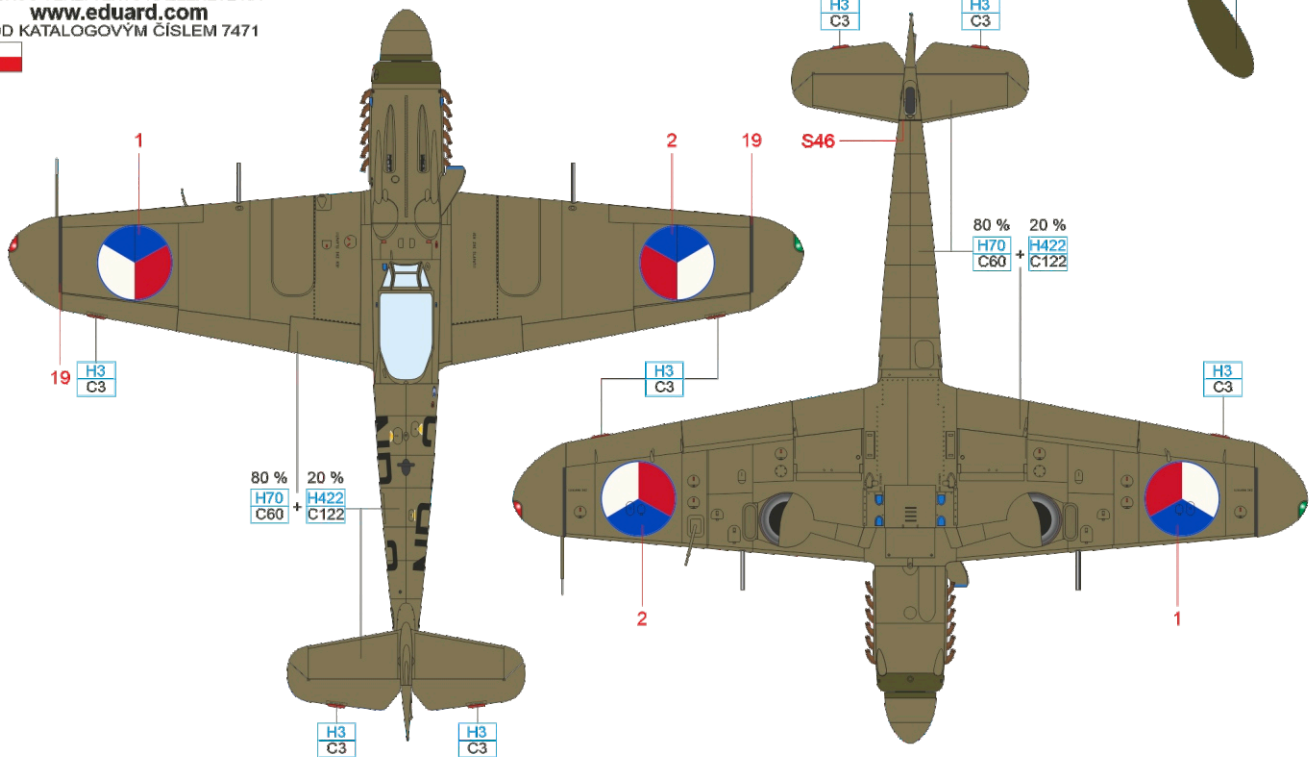
Our special thanks to Michal Ovčáčík  
 for his invaluable input and cooperation.

GRAY	H70 C60	LIGHT GREEN	H422 C122	GREEN	H421 C121	BLACK	H2 C2	FLAT WHITE	H11 C62	RED	H3 C3
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The Avia S-199 number 156 was produced in the summer of 1948 and was assigned to the 3 Air Division in mid-November. In June 1949, it was stationed with Aviation Regiment 8 at the Brno-Černovice airfield. The code designation NP-2 hints it was the aircraft of the 3 Squadron. The aircraft was painted by light gray-green color shade and had the front part repaired with a darker shade of green paint. On June 10, 1949, the pilot, rt. (TSgt) Jan Dočkal damaged it during landing at his home airfield. After repair, the aircraft was then assigned to Aviation Regiment 3. This "Mezek" (Mule) had machine guns in the wing installed. On March 18, 1952, it was destroyed during take-off.



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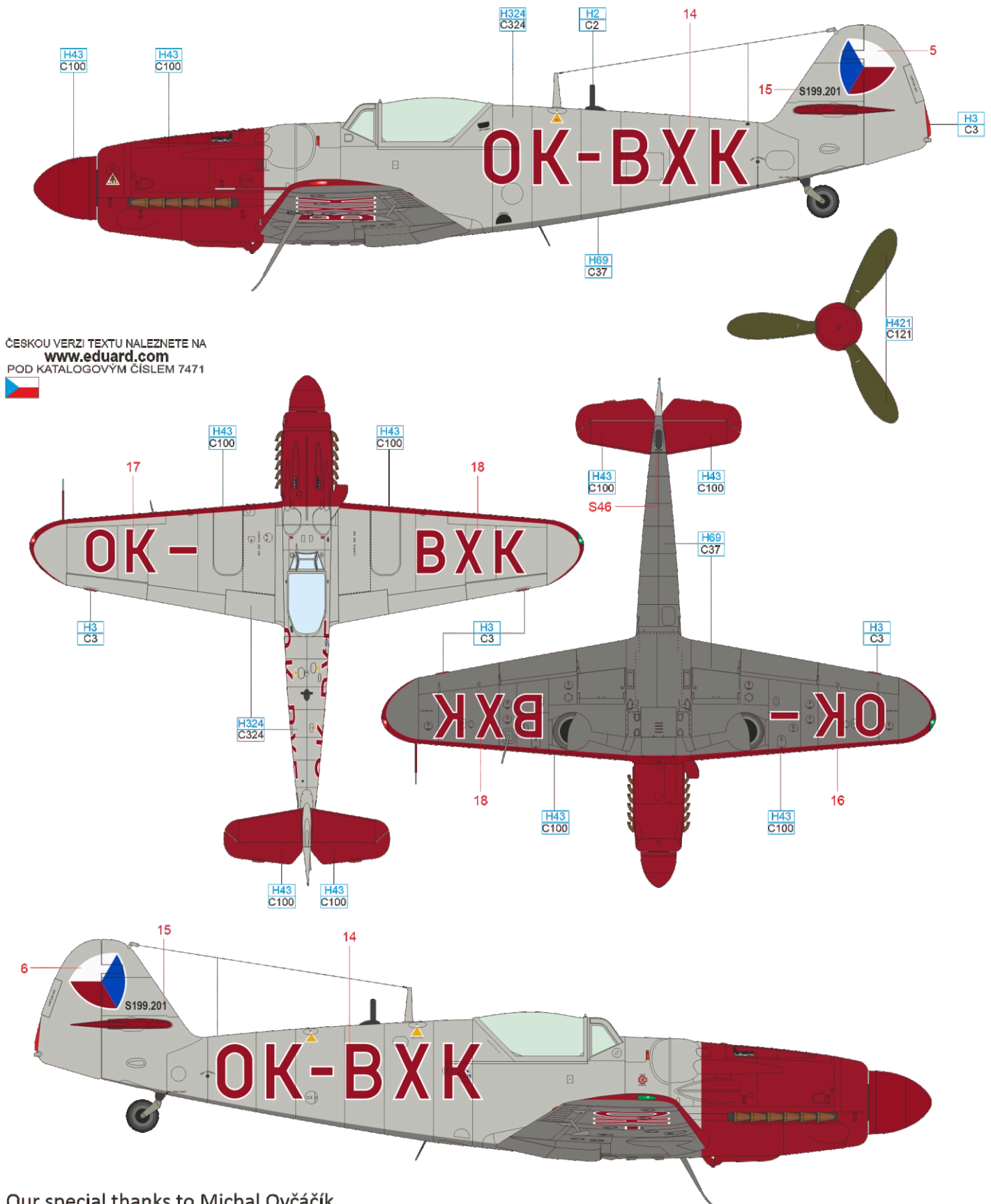


Our special thanks to Michal Ovčáčík  
 for his invaluable input and cooperation.

GRAY H70 C60 LIGHT GREEN H422 C122 GREEN H421 C121 BLACK H2 C2 RED H3 C3

# D Police Air Patrol, Brno/Olomouc, Czechoslovakia, 1949

The Police Air Patrol of the Security Air Force (until mid-December 1947 the National Security Air Force) used this aircraft at Brno or Olomouc airports. At the time of its service with the Police Air Patrol, it bore the standard livery of this air force, i.e., light grey paint on the upper surfaces and dark grey on the lower surfaces, complemented by scarlet paint on the nose and leading edge of the wing. Also, the horizontal tail surfaces were the same color. The reconstruction of the color scheme was based on photographs of similar aircraft as no photographs of the OK-BXK have survived. The serial number is still unknown, but could probably be 201, 410 or in the range 414 to 416. There is full range of the digits for creating any number.



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

DARK GRAY	H69 C37	LIGHT GRAY	H324 C324	GREEN	H421 C121	BLACK	H2 C2	RED	H43 C100	RED	H3 C3
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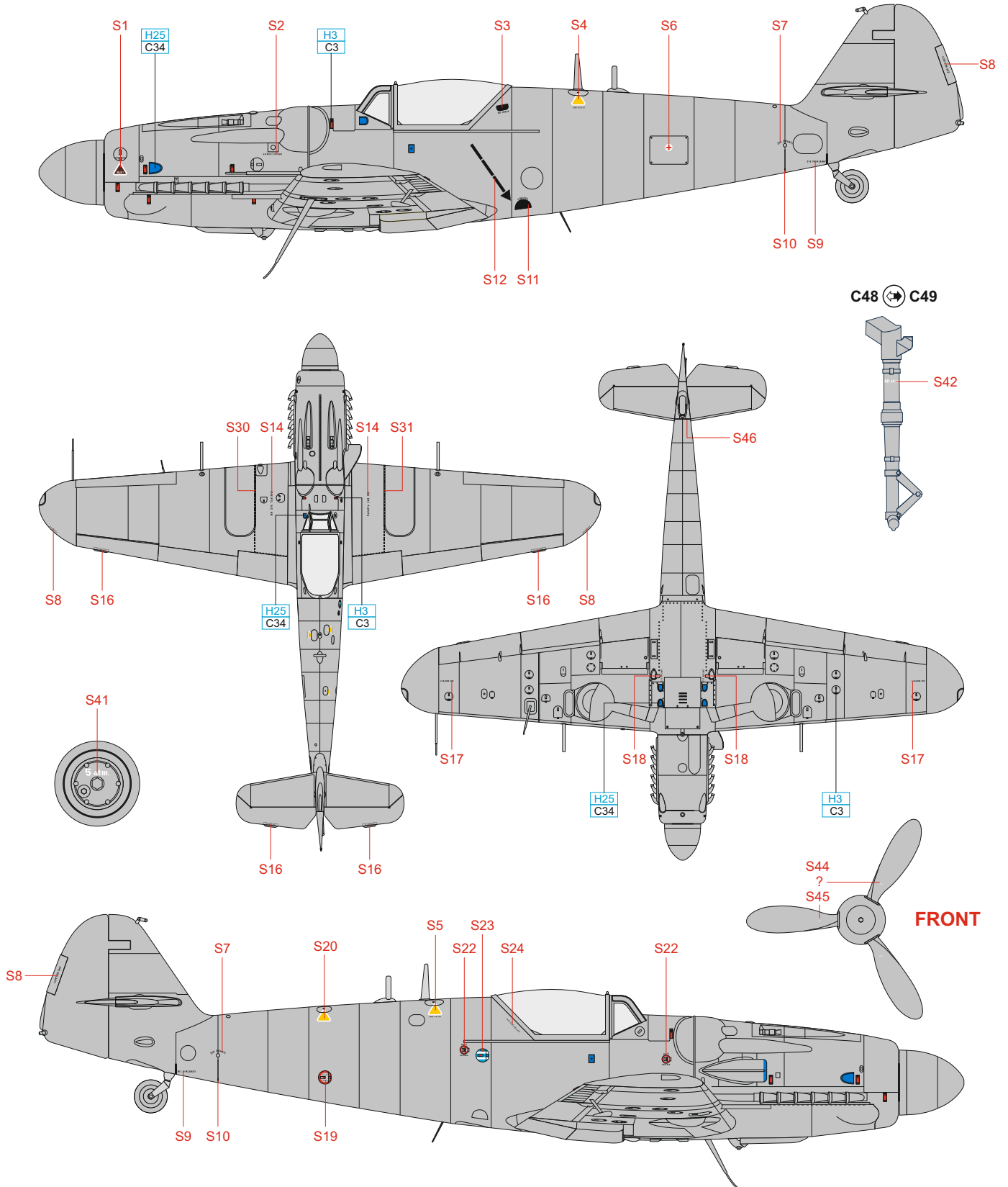


decal	MARKING
S1a	C
S1b	B, D
S1c	A

decal	MARKING
S4a	C
S4b	B, D
S4c	A

decal	MARKING
S5a	C
S5b	B, D
S5c	A

decal	MARKING
S20a	C
S20b	B, D
S20c	A
S23b	A, C





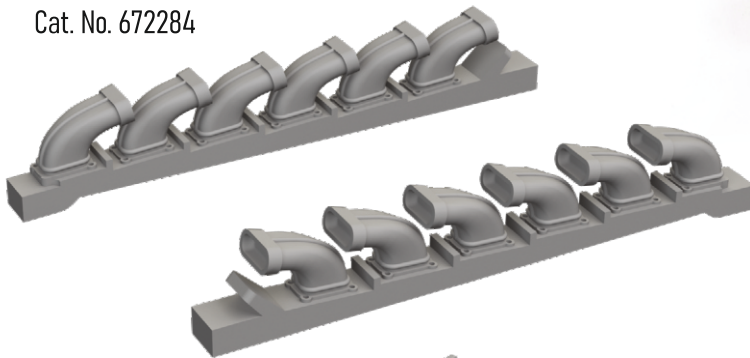
# Eduard goodies for S-199 bubble canopy 1/72

- SS810 S-199 bubble canopy Weekend (PE-Set)
- 672284 S-199 exhaust stacks PRINT (Brassin)
- 672285 S-199 wheels PRINT (Brassin)
- 672289 cockpit bubble 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)
- D72040 S-199 Czechoslovak stencils (Decal Set)
- CX652 S-199 bubble canopy Weekend (Mask)



Cat. No. 672294

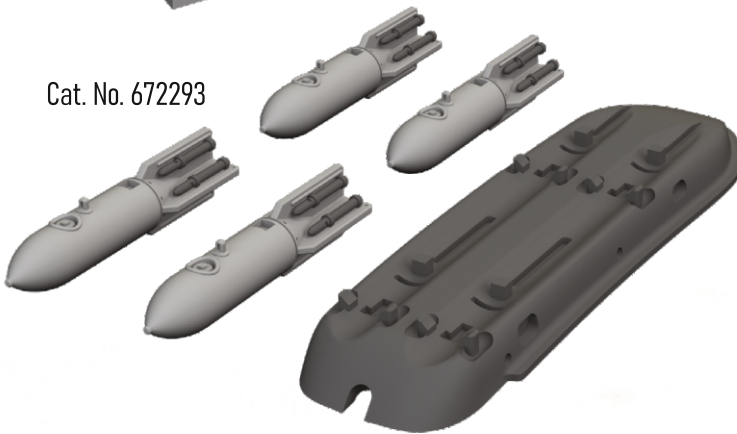
Cat. No. 672284



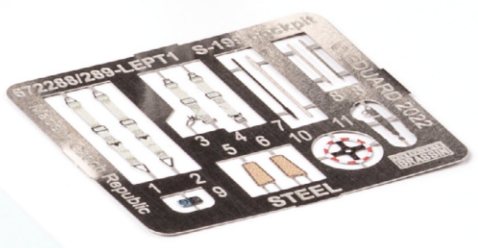
Cat. No. 672285



Cat. No. 672293



Cat. No. 672289



# Complete Your collection of S-199s and Bf 109Fs

#70151



#70152



#70153



#2142



#70154



#70155

