

# Z-226MS Trenér

eduard

1/48 Scale Plastic Model Kit

**ProfiPACK**  
edition



item No. 82182

The small and simple sport plane, which was designed three quarters of a century ago is still popular today, and also a first class legend for many. Trenér is really multitalent aircraft, as it won numerous aerobatic trophies, trained thousands of pilots, and towed countless gliders to the sky.

It was shortly after the Second World War when the Ministry of National Defense of then Czechoslovakia made a request in 1946 for the development of aircraft for the training of future military pilots. It was to be a type allowing comprehensive pilot training, including aerobatics and with a tandem cockpit arrangement.

The design work was undertaken by a team led by the director of the Zlín Aviation Company Karel Tomáš with further development subsequently taken over by Svatopluk Zámečník and Jiří Navrátil. The new trainer was of mixed construction with a welded tube frame fuselage covered in the middle and rear part with canvas. The wing was all-wood, with canvas cover from the spar to the trailing edge. The tail surfaces were also of wooden/canvas design. The landing flaps were electromechanically operated, the brakes were hydraulically operated. A Walter Minor 4-III four-cylinder engine with a maximum output of 77 kW (105 hp) was selected and mated with the wooden propeller of the V-26.

#### First changes

Factory pilot Ladislav Šváb flew the first prototype on October 20, 1947, and after design of Mr. Tomáš was preferred over the competing Praga E-112, serial production began in 1949 with the military designation C-5 and the civilian designation Z-26. Within two years, 163 of these aircraft were built, primarily for military training. However, trainers were also supplied to aero clubs, and export machines went to Poland or Romania.

Problems with the wooden wing led to its redesign to an all-metal structure and so were tail surfaces. The hydraulic brakes were replaced by simpler mechanical brakes. Some Z-26 and Z-126 aircraft received an electric starter, but these were later removed to save weight and replaced by a manual starter. In both cases they were flown solo from the front seat.

#### The six-cylinder emerges

Thanks to the Trenér, aerobatic training became a common thing in the Czechoslovakia, and it was also shown that this type could be suitable for towing gliders. However, the four-cylinder Minor lacked power, so a six-cylinder Minor 6-III with 118 kW (160 hp) was installed, coupled with a specially designed towing propeller. The longer engine necessitated moving the oil tank from the engine bulkhead to the root of the left wing half, and some weight was saved by removing the instruments and controls in the forward cockpit, where only the seat remained. The electric control of the flaps was also removed and replaced with a mechanical one – a lever on the right side of the rear cockpit. All this created the „workhorse“ of the aero clubs of the time, the Z-226B Bohatýr (Hero) tug.

#### Aerobatics achievements

Due to the excellent experience with the Z-226B version, it was decided to build a trainer version, the Z-226T based on the six-cylinder design. In 1956, Jiří Bláha placed second in the unofficial aerobatic world championship, the Lockheed Trophy competition in Coventry, England, with his prototype. Top places for Czechoslovak aerobatic pilots flying Z-226T were quite usual at the time. Even the first official aerobatic world championship in Bratislava in 1960 was a proof of that with Ladislav Bezák becoming first official World Champion. On the international aerobatic scene, Z-226 remained at the top until 1963, after which they were outstripped by more modern designs. These aircraft nonetheless continued to provide excellent services in the aero clubs.

#### Another engine change

In the second half of the seventies, a shortage of Minor 6-III engines caused four-cylinder Minor 4-III to be retrofitted to the existing Z-226Ts. However, the oil tank in the root of the left wing was retained, as was the mechanical control of the flaps. This resulted in a total of 22 Z-126Ts. Later, when the six-cylinder engines became available again, they were converted to the Z-226 standard, but in many cases instead of the Minor 6-III the more up-to-date M-137 engine with an output of 132 kW (178 hp) was installed. This powerplant was also coupled to a wooden propeller, and depending on the intended use, either a cruise or a towing one could be installed. These aircraft were designated Z-226M and were also built by converting the Z-226B. The Z-226M continued the original purpose of the B version and became primarily a towing aircraft.

#### This kit: Z-226MS Trenér

Starting in 1986, some Z-226Ms began to be converted to the Z-226MS version. The modification consisted of the installation of a V-503A metal propeller with automatic and autonomous pitch control. The heavier propeller required the installation of weights in the aft of the aircraft, and there were also changes in the oil installation necessitated by the propeller design. When the overhaul interval of the propeller was reduced to six years, some Z-226MSs were rebuilt to M standard with a wooden propeller for economy reasons.

Today's Z-226Ms and MSs are no longer aerobatic aircraft, and so are used for towing or hobby flying. Even after 74 years since the first flight, the Trenér still has its charm and qualities, and many pilots can't wait to fly them. Its designer Karel Tomas (died January 29, 1967) would certainly be very pleased with the longevity and success of his design.

ATTENTION



UPOZORNĚNÍ



ACHTUNG



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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  
NABARVIT

PARTS



DÍLY



TEILE



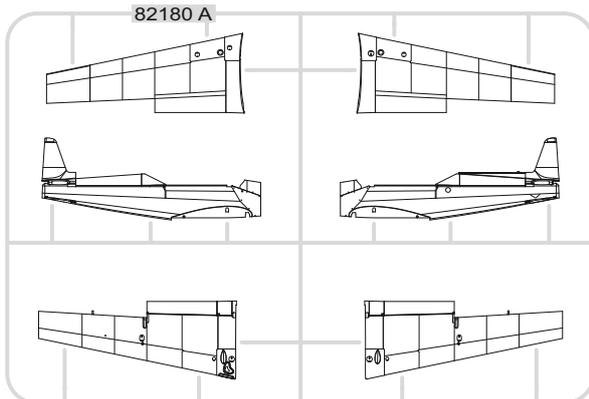
PIÈCES



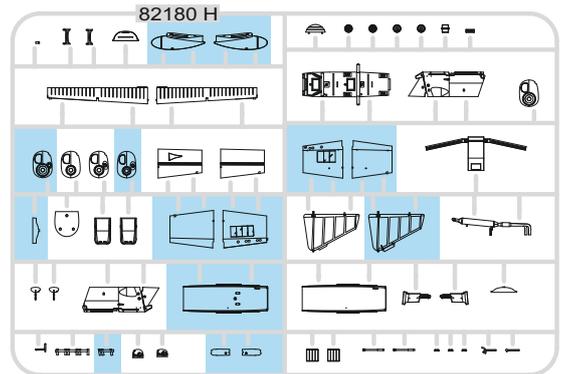
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## PLASTIC PARTS

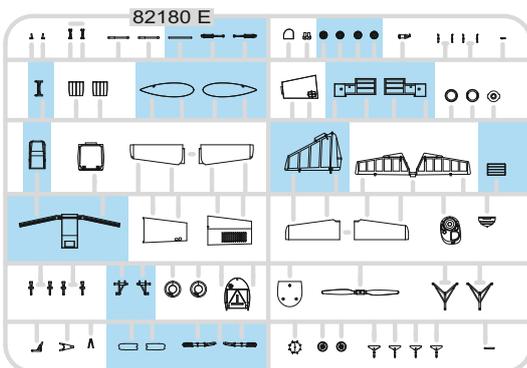
A&gt;



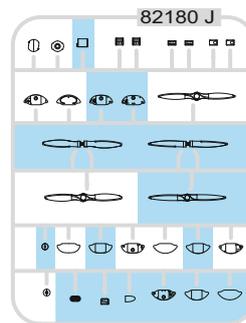
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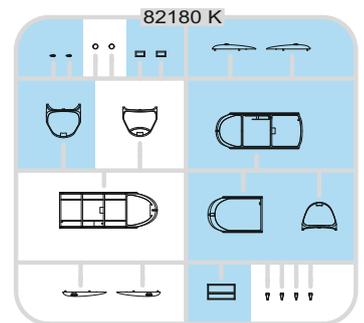
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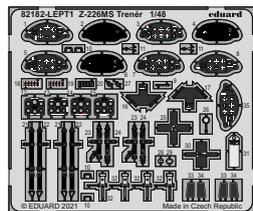
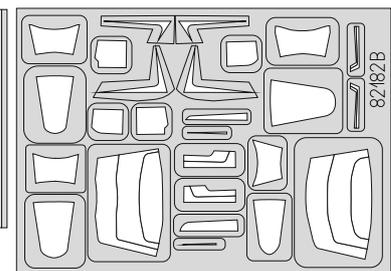
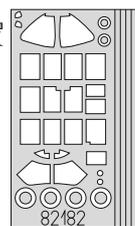
J&gt;



K&gt;



## PE - PHOTO ETCHED DETAIL PARTS

eduard  
MASK

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

COLOURS



BARVY



FARBEN



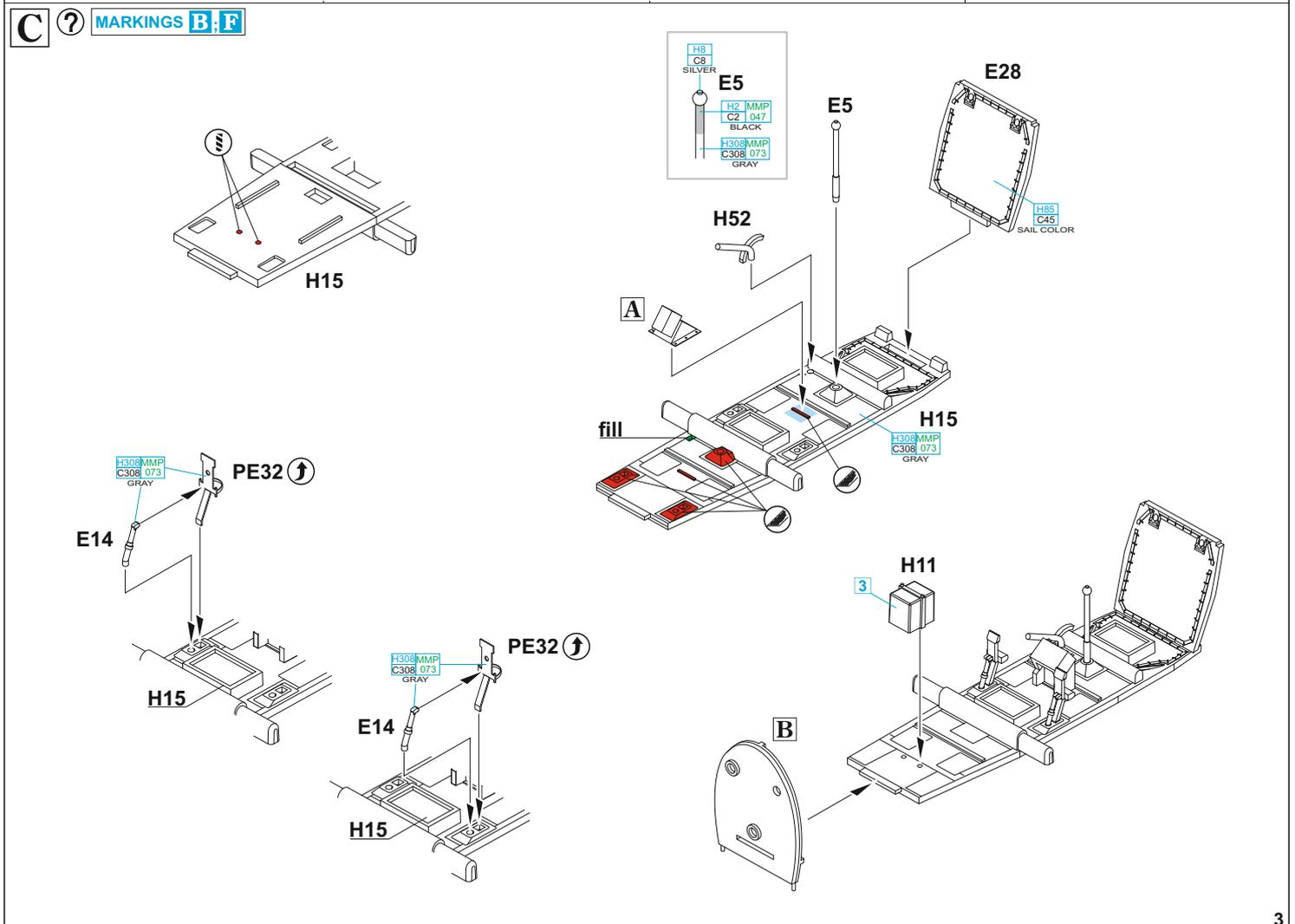
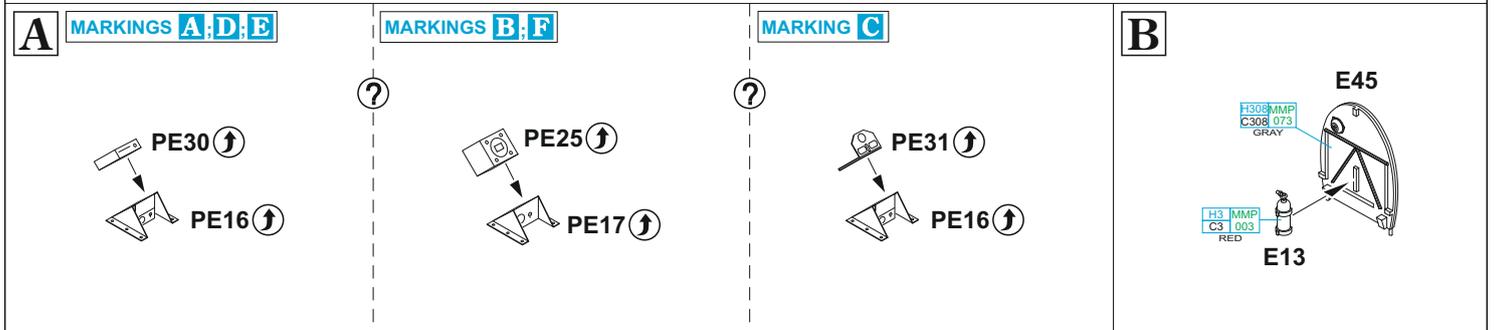
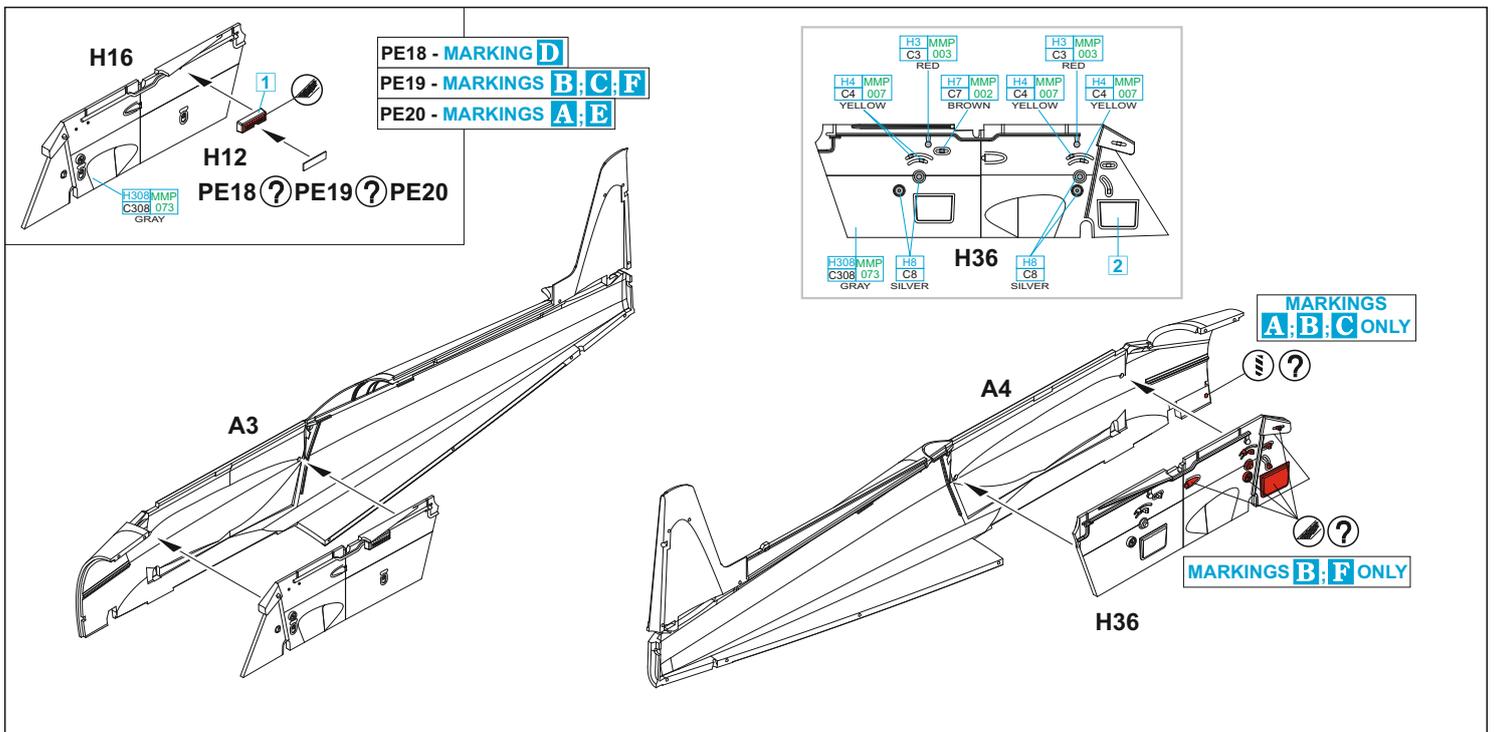
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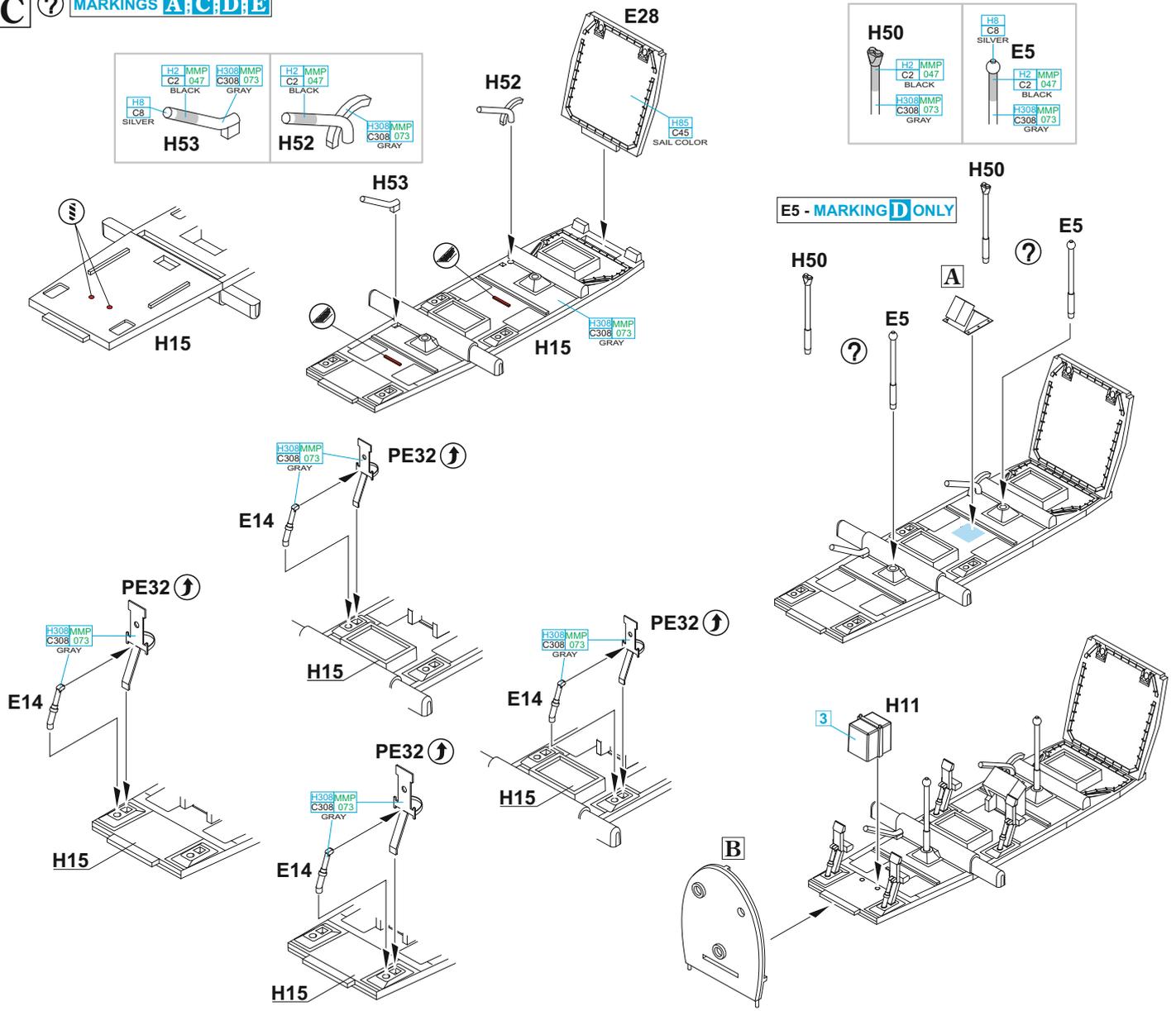
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GSI Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H1	C1	[MMP-001]	WHITE
H2	C2	[MMP-047]	BLACK
H3	C3	[MMP-003]	RED
H4	C4	[MMP-007]	YELLOW
H7	C7	[MMP-002]	BROWN
H8	C8		SILVER
H12	C33	[MMP-047]	FLAT BLACK
H15	C65		BRIGHT BLUE
H24	C58		ORANGE YELLOW
H25	C34		SKY BLUE
H33	C81		RUSSET
H77	C137	[MMP-040]	TIRE BLACK
H85	C45		SAIL COLOR
H90	C47		CLEAR RED
H94	C138		CLEAR GREEN
H95	C101		SMOKE GRAY

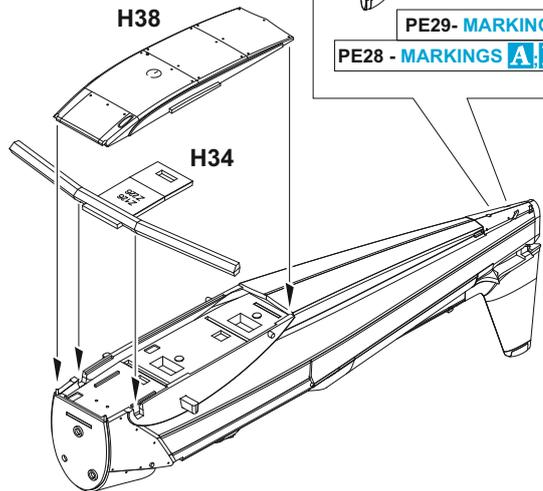
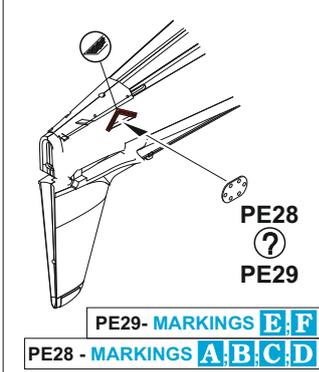
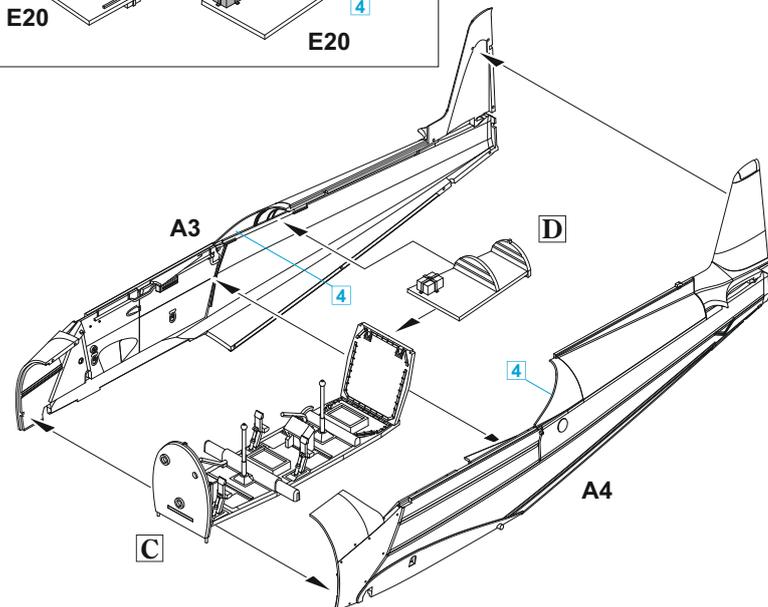
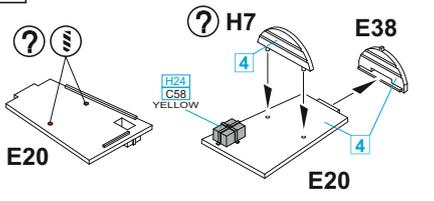
GSI Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H306	C306	[MMP-118]	MEDIUM GRAY
H308	C308	[MMP-073]	GRAY
H310	C310	[MMP-060]	BROWN
H317	C317	[MMP-064]	GRAY
H327	C327	[MMP-101]	RED
H328	C328		BLUE
	C25		DARK SEAGRAY
	C72	[MMP-071]	INTERMEDIATE BLUE
	C74	[MMP-061]	AIR SUPERIORITY BLUE
Mr.METAL COLOR		METALLICS	
	MC214	[MMM-001]	DARK IRON
	MC217		GOLD
	MC218	[MMM-003]	ALUMINIUM
Mr.COLOR SUPER METALLIC		METALLICS	
	SM201	[MMC-001]	SUPER FINE SILVER 2

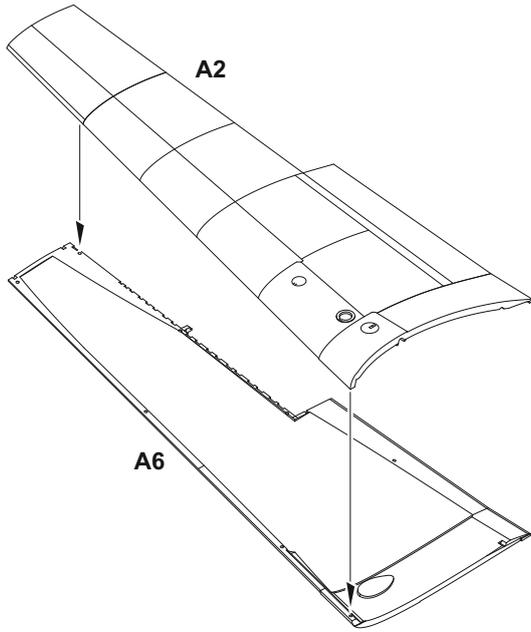
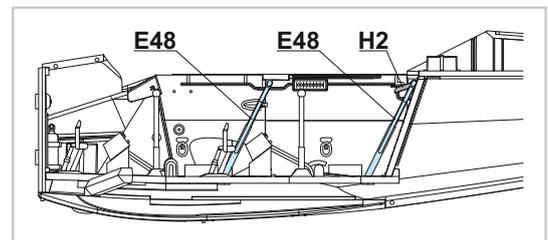
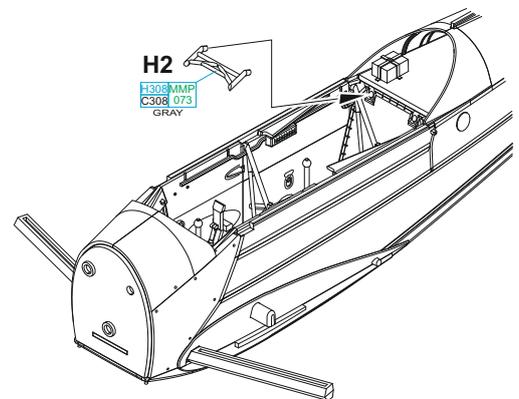
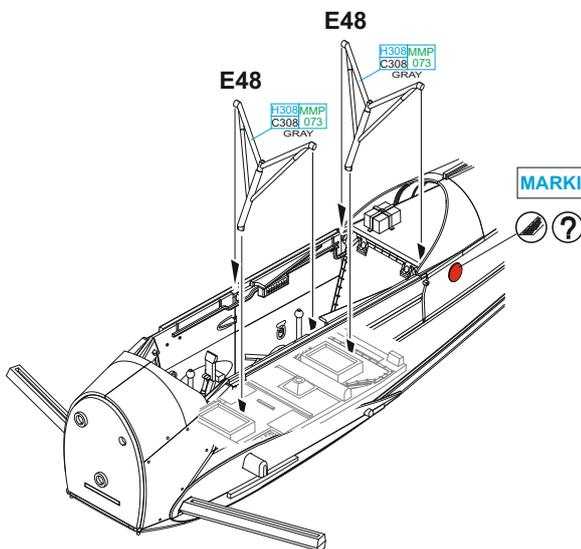
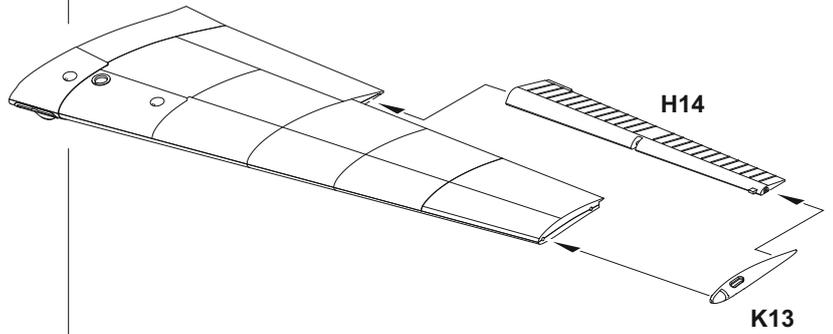
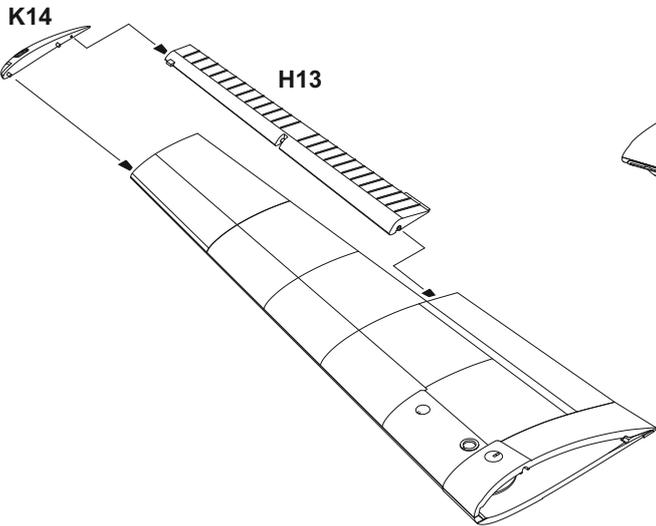
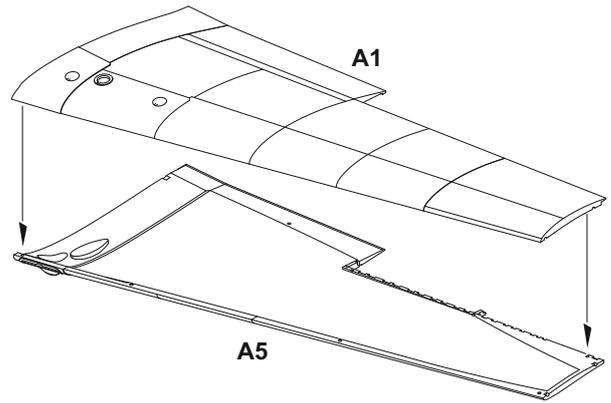


**C** ? **MARKINGS A, C, D, E**



**D** **H7 - MARKINGS D, E, F ONLY**

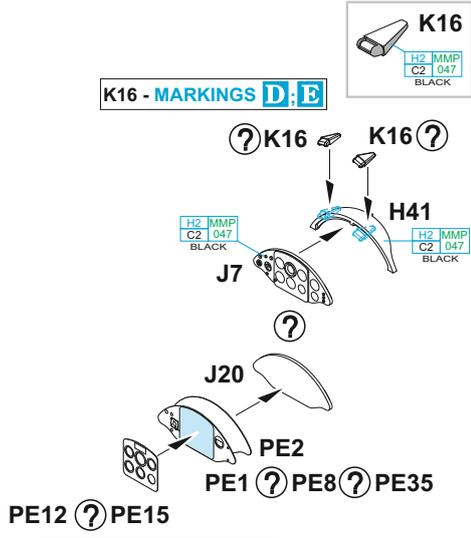


**E****F**

**G** MARKINGS **A, C, D, E**

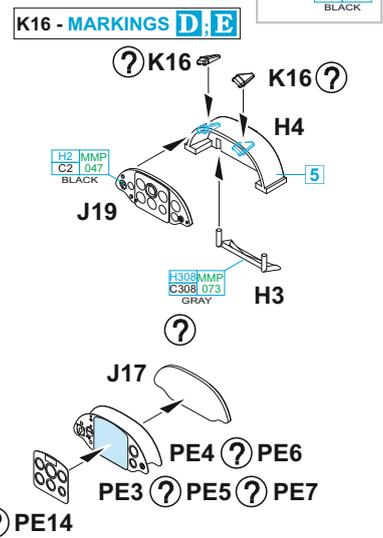
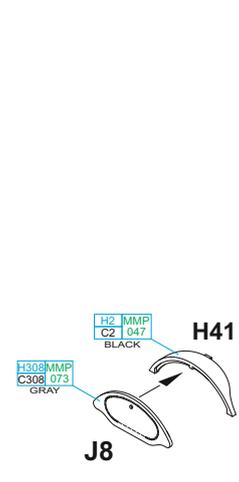
MARKINGS **B, F**

**H**



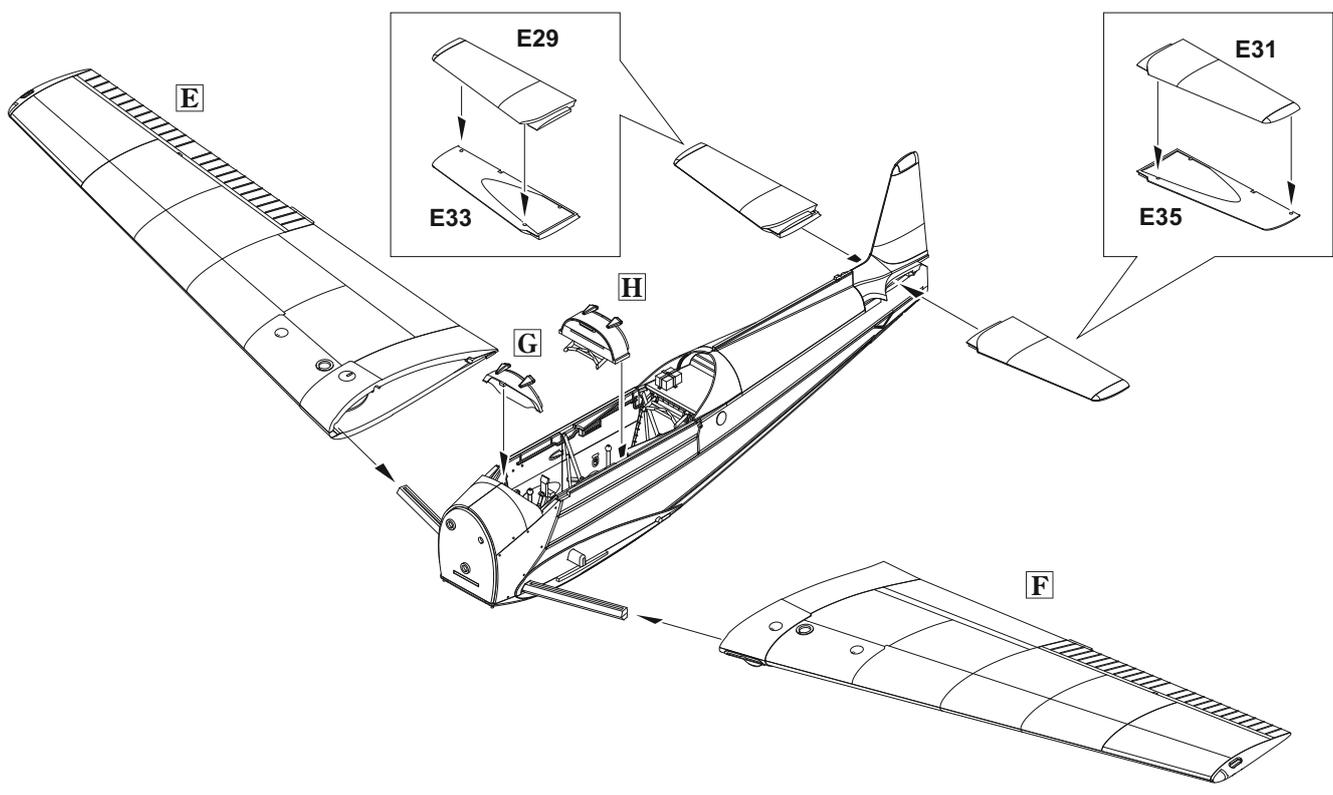
- PE1, 2, 12 - MARKING **A**
- PE8, 2, 15 - MARKINGS **D; E**
- PE35, 2, 15 - MARKING **C**

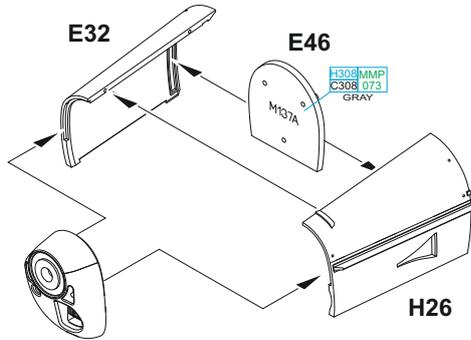
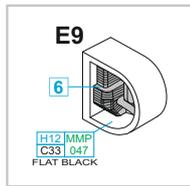
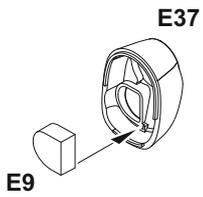
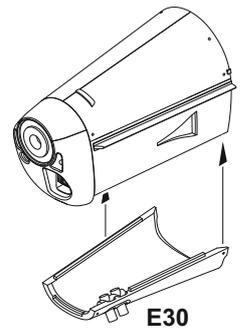
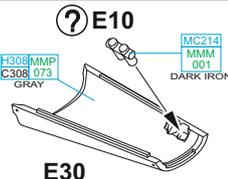
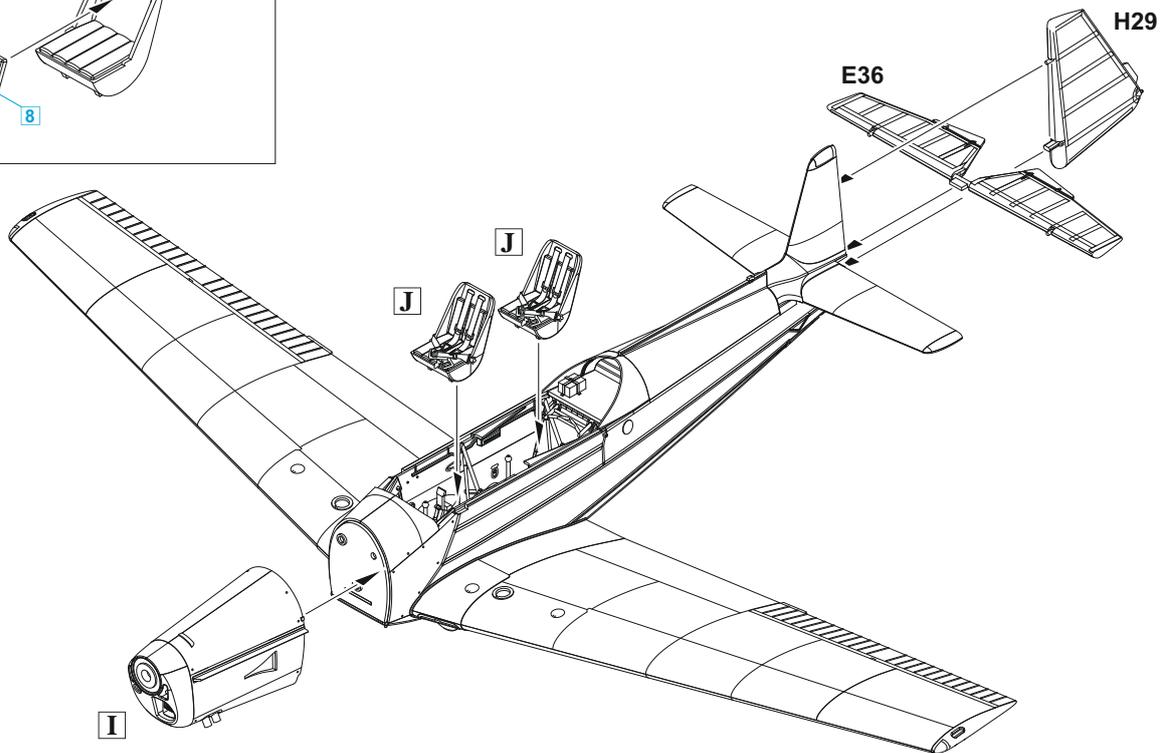
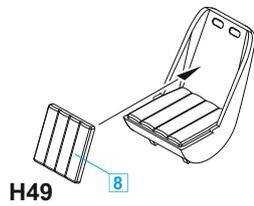
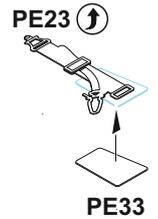
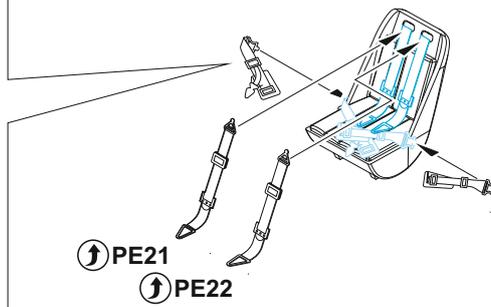
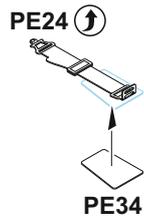
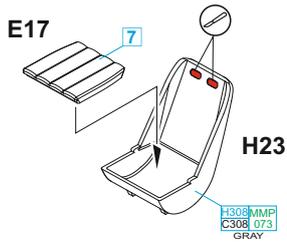
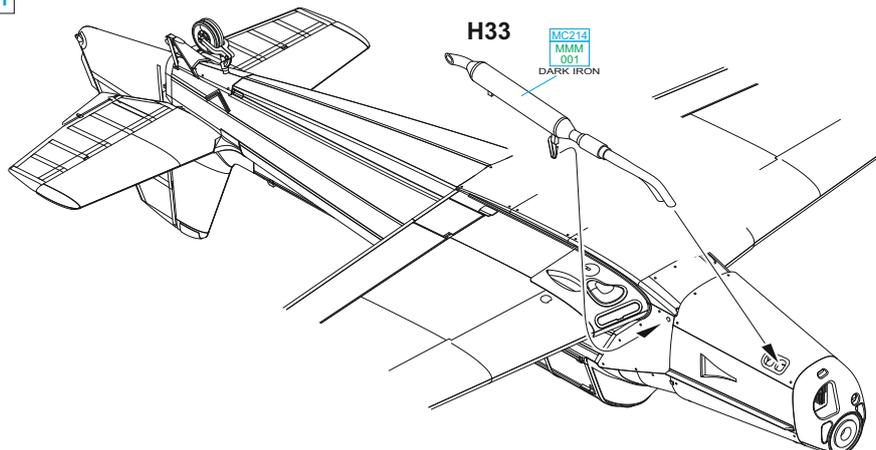
- OPTIONAL:**
- decal K1 - MARKING **A**
  - decal K4 - MARKING **C**
  - decal K6 - MARKING **D**
  - decal K8 - MARKING **E**

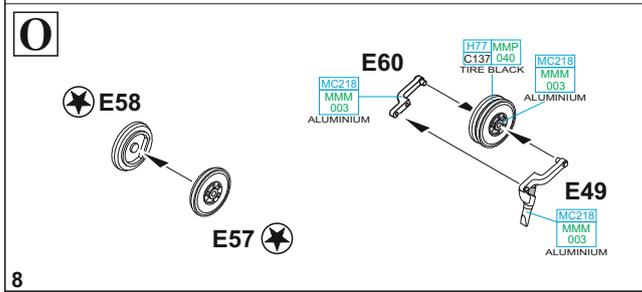
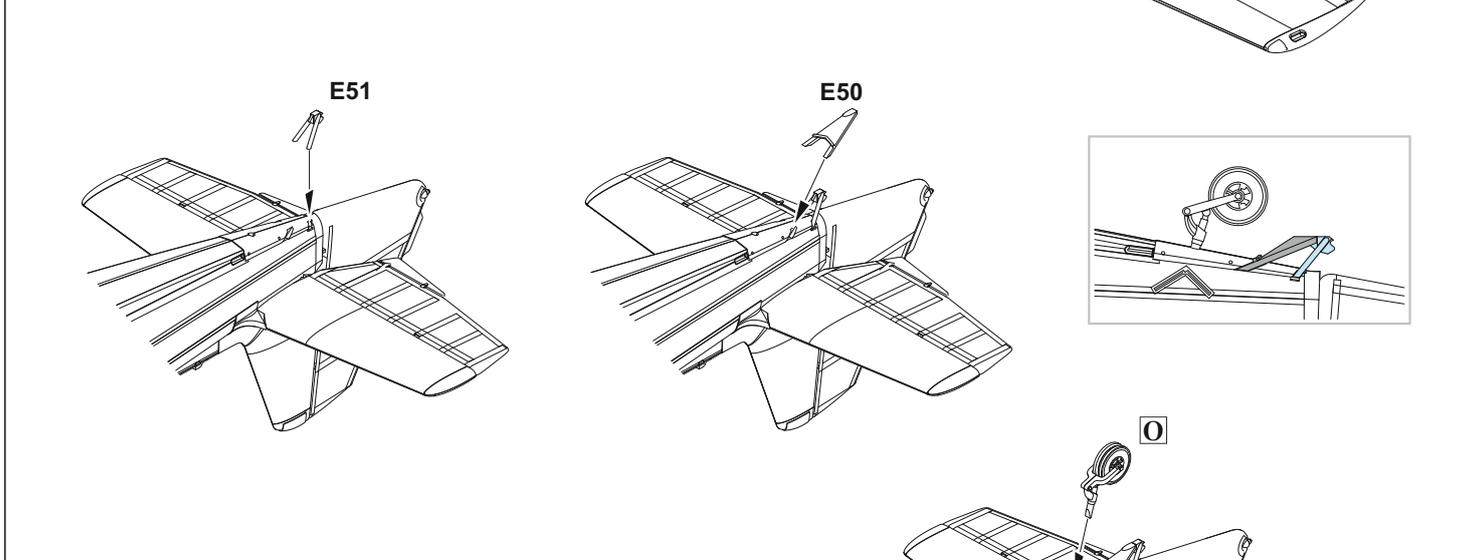
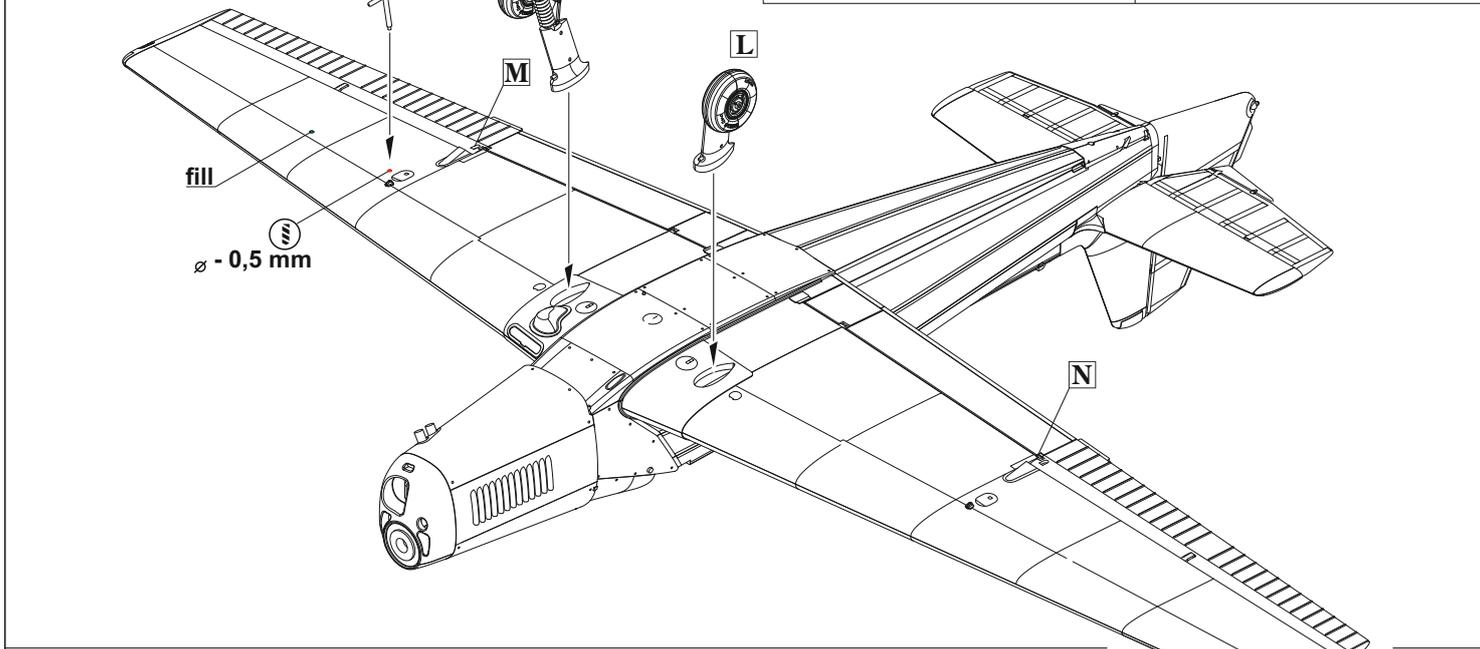
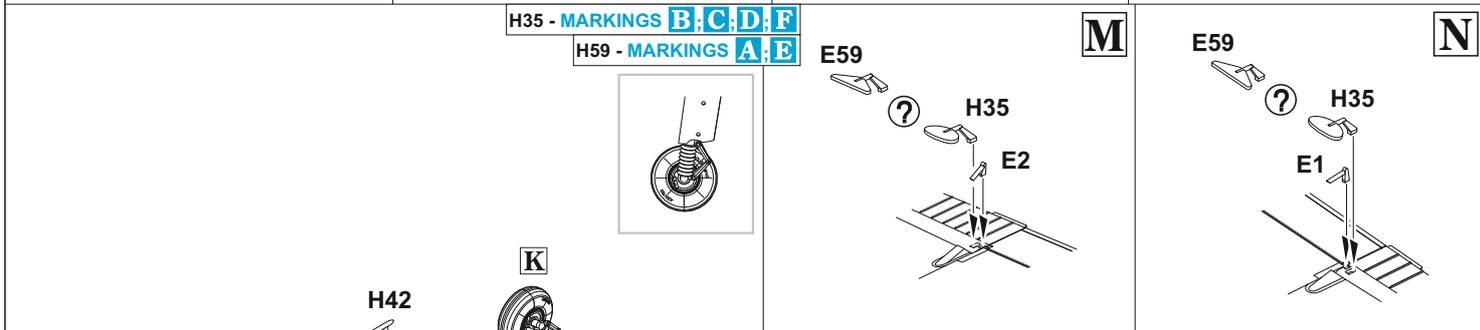
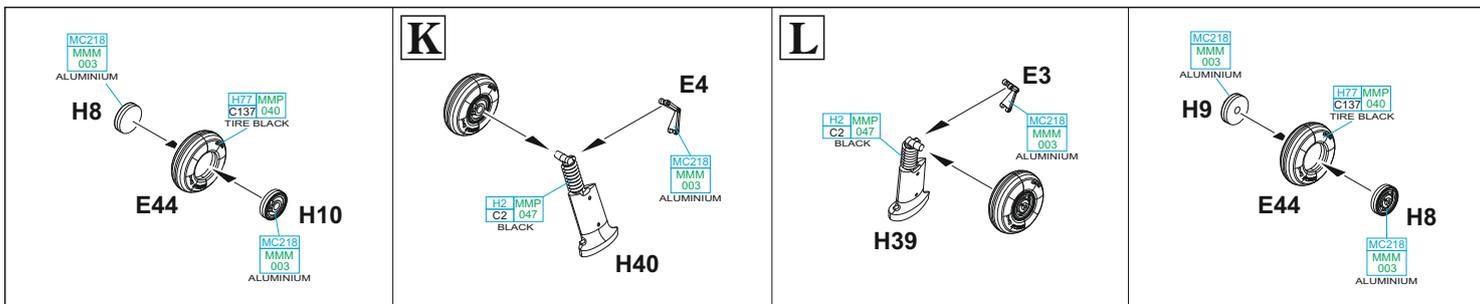


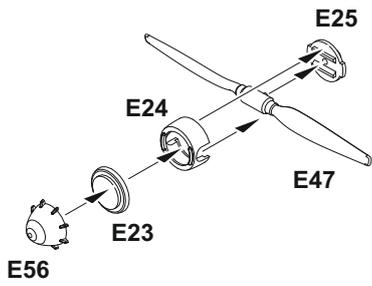
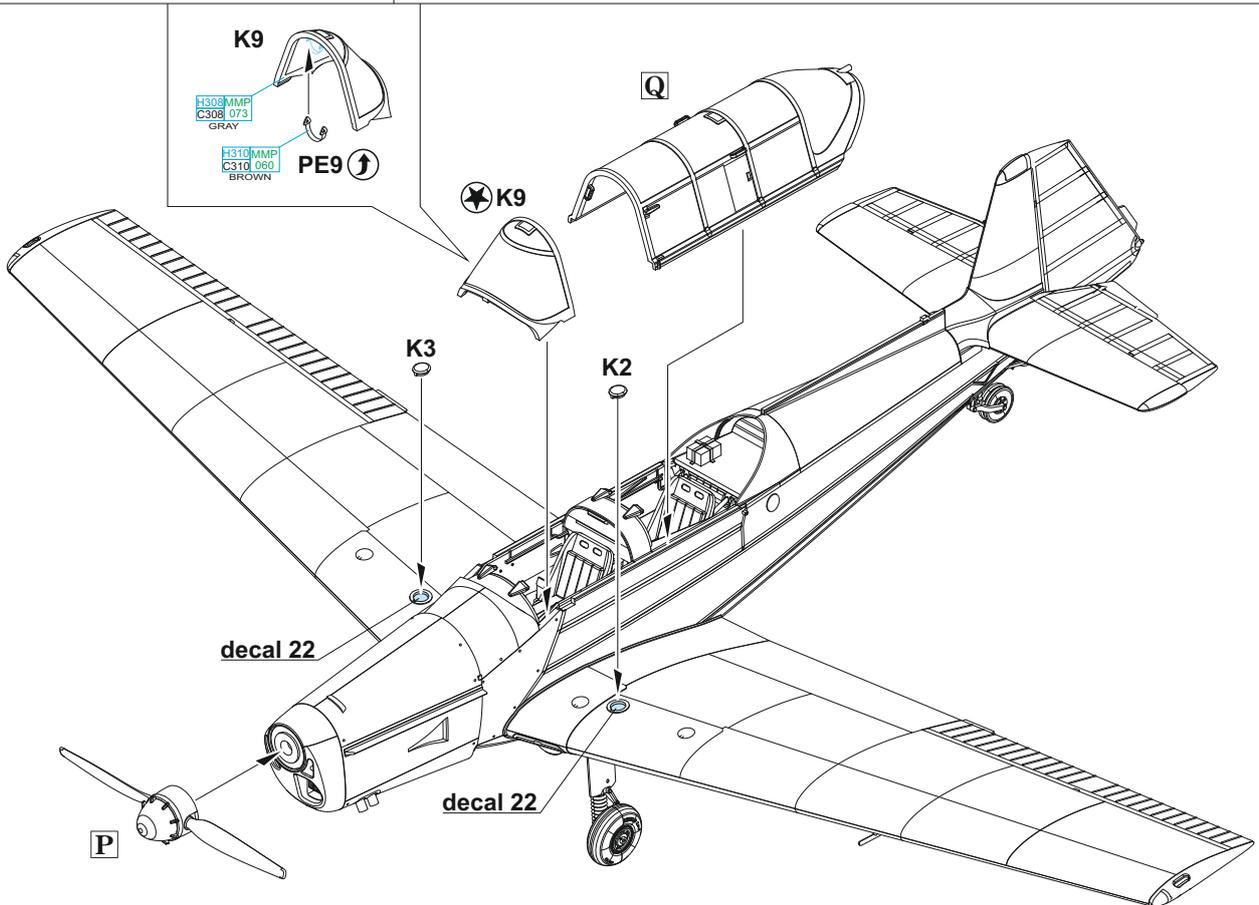
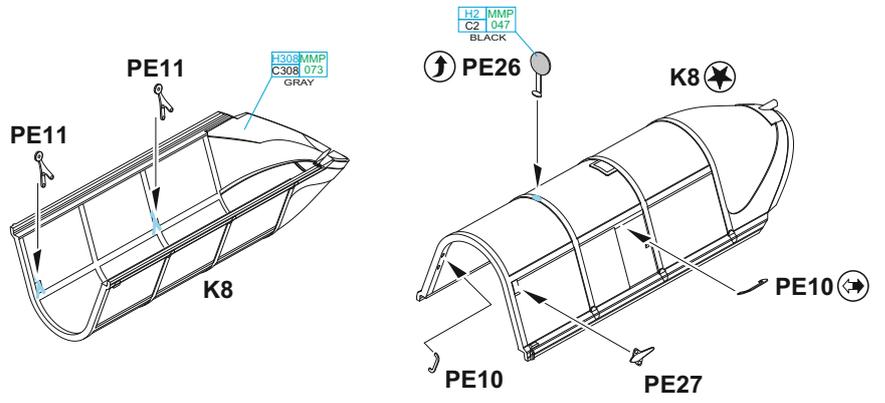
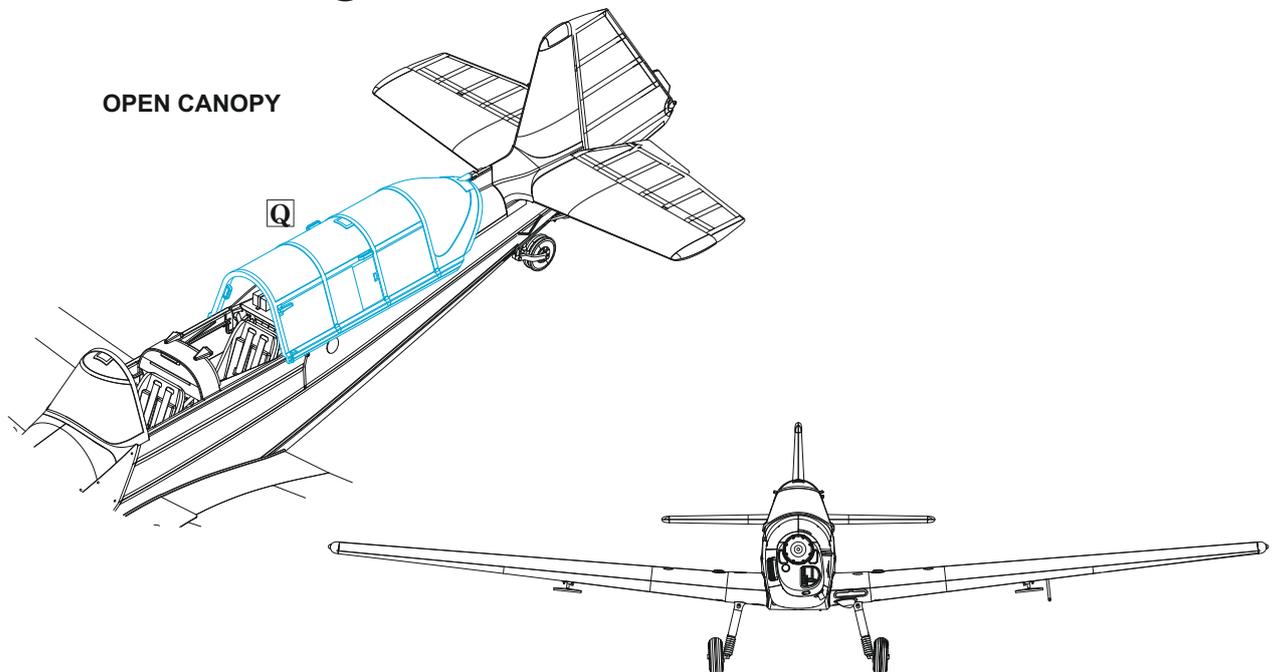
- PE3, 4, 13 - MARKING **A**
- PE5, 6, 14 - MARKINGS **B; D; E; F**
- PE7, 4, 13 - MARKING **C**

- OPTIONAL:**
- decal K2 - MARKING **A**
  - decal K3 - MARKING **B**
  - decal K5 - MARKING **C**
  - decal K7 - MARKING **D**
  - decal K9 - MARKING **E**
  - decal K10 - MARKING **F**



**I****E10 - MARKINGS D, E, F ONLY****J****2 pcs.****? MARKINGS A, B, C ONLY**



**P****Q****?****OPEN CANOPY**

1 =  $\begin{matrix} \text{H2 MMP} \\ \text{C2 1 047} \\ \text{BLACK} \end{matrix}$  - MARKINGS **A, E**  
 $\begin{matrix} \text{H8} \\ \text{C8} \\ \text{SILVER} \end{matrix}$  - MARKING **D**  
 $\begin{matrix} \text{H308 MMP} \\ \text{C308 073} \\ \text{GRAY} \end{matrix}$  - MARKINGS **B, C, F**

2 =  $\begin{matrix} \text{H12 MMP} \\ \text{C33 047} \\ \text{FLAT BLACK} \end{matrix}$  - MARKINGS **A, C**  
 $\begin{matrix} \text{H33} \\ \text{C81} \\ \text{RUSSET} \end{matrix}$  - MARKING **D**  
 $\begin{matrix} \text{HMP} \\ \text{C72 071} \\ \text{INTERMEDIATE BLUE} \end{matrix}$  - MARKING **E**

3 =  $\begin{matrix} \text{H2 MMP} \\ \text{C2 1 047} \\ \text{BLACK} \end{matrix}$  - MARKINGS **A, C**  
 $\begin{matrix} \text{H3} \\ \text{C3 1 003} \\ \text{RED} \end{matrix}$  - MARKINGS **D, E, F**  
 $\begin{matrix} \text{H308 MMP} \\ \text{C308 073} \\ \text{GRAY} \end{matrix}$  - MARKING **B**

4 =  $\begin{matrix} \text{H2 MMP} \\ \text{C2 1 047} \\ \text{BLACK} \end{matrix}$  - MARKING **D**  
 $\begin{matrix} \text{H308 MMP} \\ \text{C308 073} \\ \text{GRAY} \end{matrix}$  - MARKINGS **A, B, C, E, F**

5 =  $\begin{matrix} \text{H2 MMP} \\ \text{C2 1 047} \\ \text{BLACK} \end{matrix}$  - MARKINGS **B, D**  
 $\begin{matrix} \text{H308 MMP} \\ \text{C308 073} \\ \text{GRAY} \end{matrix}$  - MARKINGS **A, C, E, F**

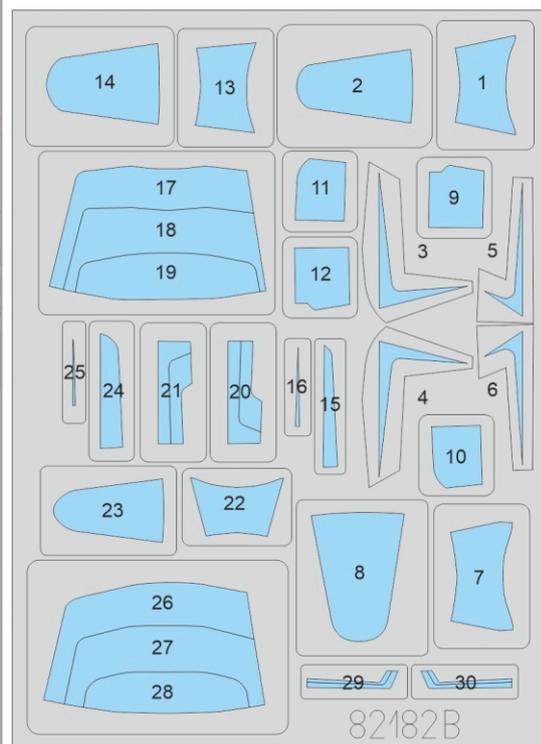
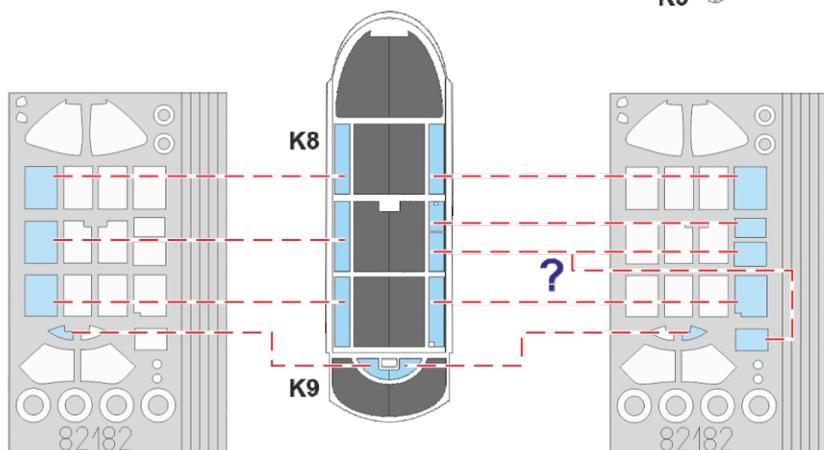
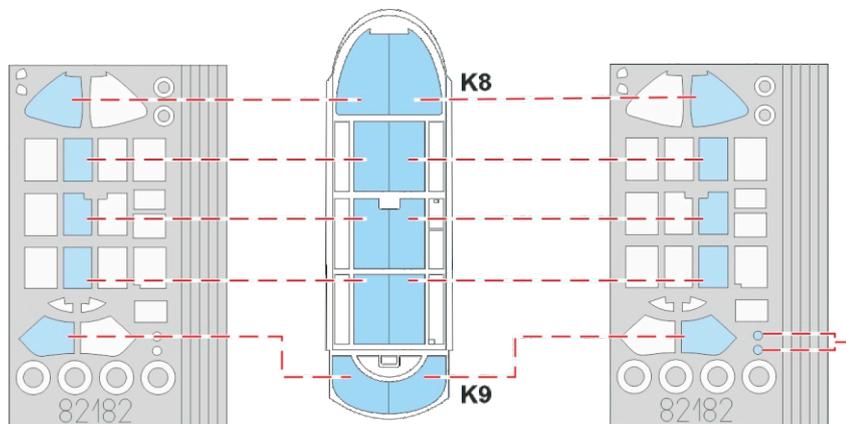
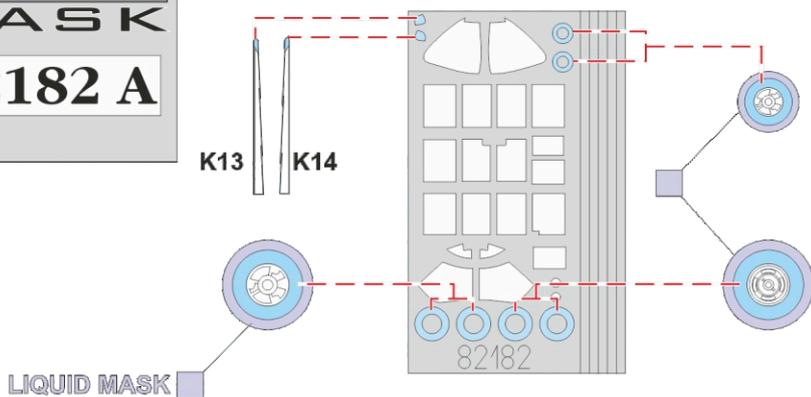
6 = 90%  $\begin{matrix} \text{MC218} \\ \text{MMM} \\ \text{003} \\ \text{ALUMINUM} \end{matrix}$  + 10%  $\begin{matrix} \text{MC217} \\ \text{GOLD} \end{matrix}$

7 =  $\begin{matrix} \text{H15} \\ \text{C85} \\ \text{BRIGHT BLUE} \end{matrix}$  - MARKING **E**  
 $\begin{matrix} \text{H33} \\ \text{C81} \\ \text{RUSSET} \end{matrix}$  - MARKINGS **A, B, C**  
 $\begin{matrix} \text{H308 MMP} \\ \text{C308 119} \\ \text{MEDIUM GRAY} \end{matrix}$  - MARKINGS **D, F**

8 =  $\begin{matrix} \text{H15} \\ \text{C85} \\ \text{BRIGHT BLUE} \end{matrix}$  - MARKING **E**  
 $\begin{matrix} \text{H33} \\ \text{C81} \\ \text{RUSSET} \end{matrix}$  - MARKINGS **A, B, C, F**  
 $\begin{matrix} \text{F21 MMP} \\ \text{C310 050} \\ \text{BROWN} \end{matrix}$  - MARKING **D**

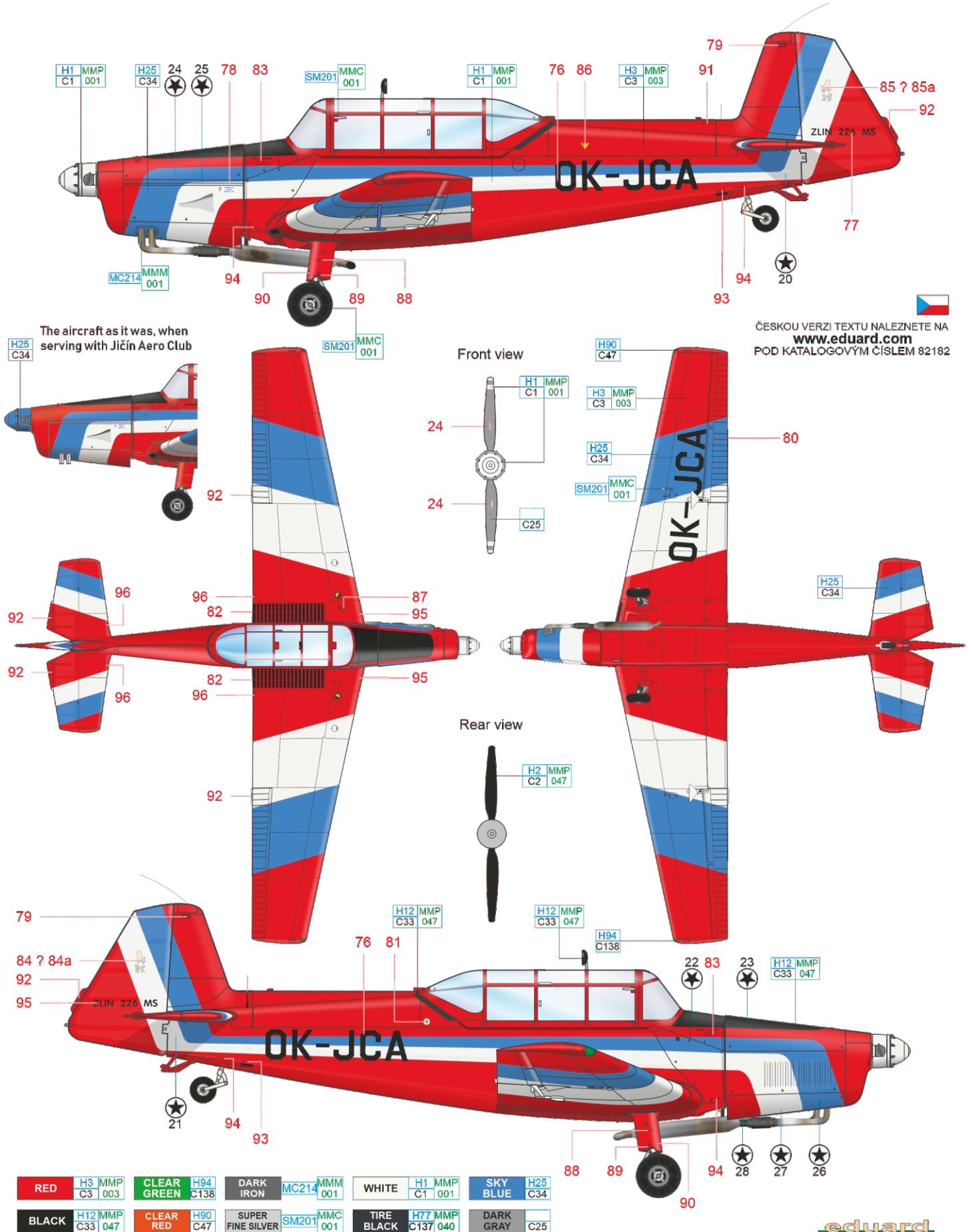
**eduard**  
**MASK**  
**82182 A**

**eduard**  
**MASK**  
**82182 B**



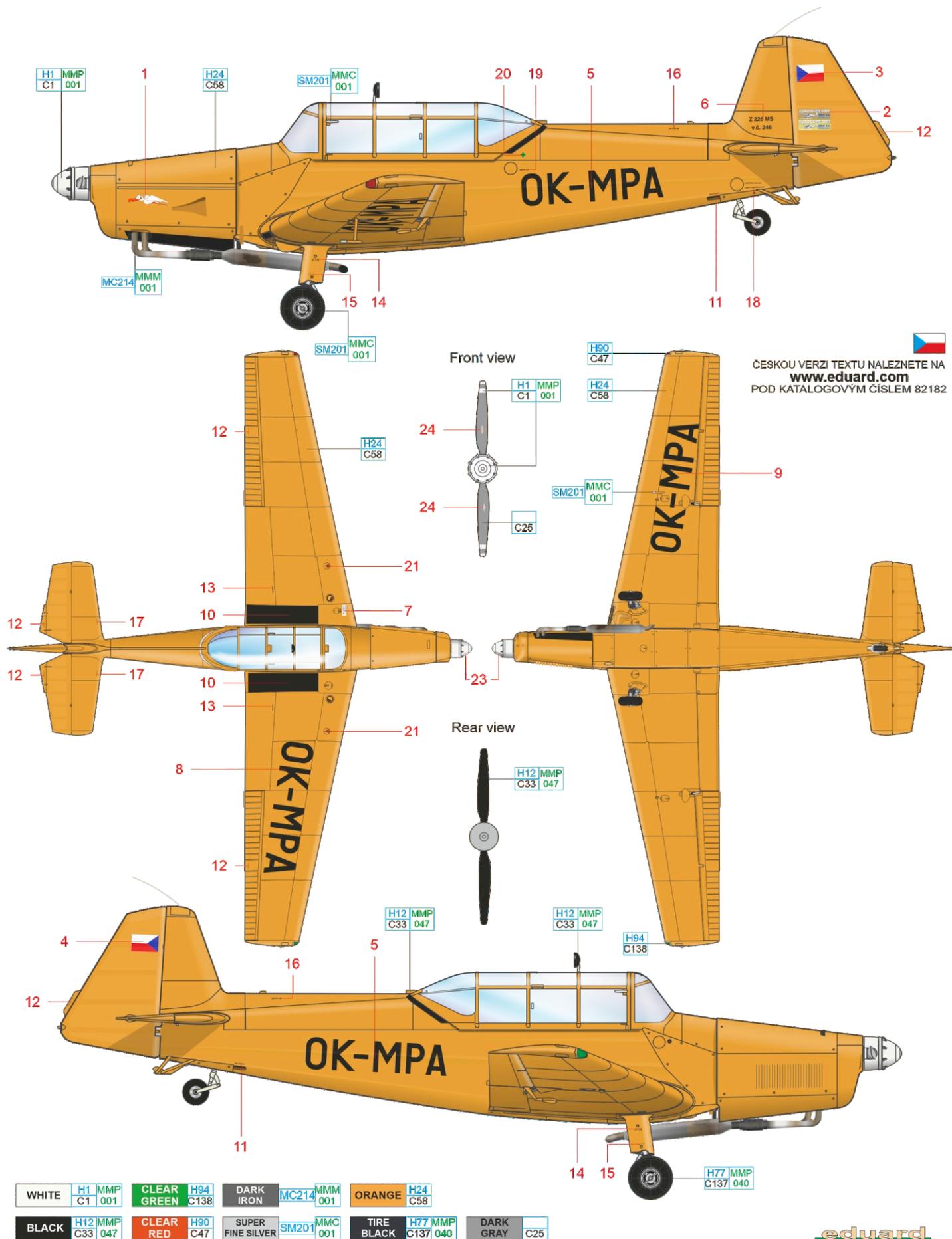
# A OK-JCA, No. 839, Gliding Aerobatic Club, Benešov airfield, Czech Republic, 2020

This aircraft was manufactured as Z-126 version and got the matriculation OK-JHJ. It was rebuilt as Z-226M and MS later in 1999. At the same time Jičín Aero Club brought it and used as a towing aircraft until 2012. The next user, Gliding Aerobatic Club of Miloš Ramert brought it in 2012. There, the exhaust silencer was fitted due to the proximity of Benešov town, as well as the touristic area around the Konopiště castle. On the rudder, the sticker with Rumcajs illustration was placed by Jičín Aero Club members, as the city is Centrepoint of the fairy-tale about this fictional person. At the time it was sold to GAC the sticker was already faded out significantly. For the appearance of the aircraft as it was used during its Jičín era, you may use the full-color decal of the figure (marked by "a" suffix). The spinner was blue at the time and exhaust was not fitted with the silencer.

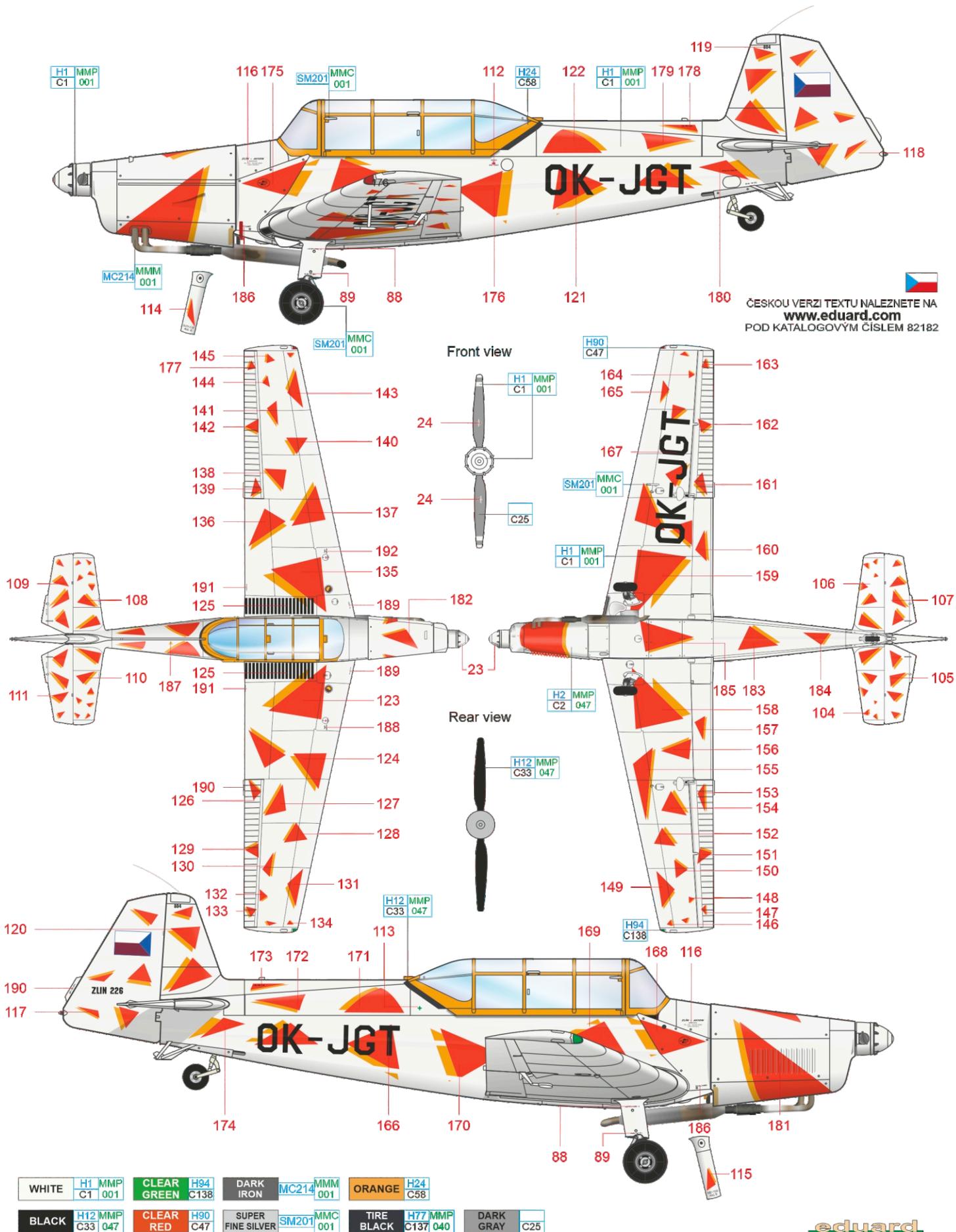


# B OK-MPA, No. 246, Aero Club Frýdlant nad Ostravicí, Czech Republic, 2019

Trenér No. 246 was manufactured in 1958 and was registered in December the same year as the Z-226B towing special with rear controls only. It flies with the Frýdlant nad Ostravicí Aero Club from 2009, when it was brought from Havlíčkův Brod Aero Club. During overhaul in 1989 the M-137 engine was installed and the V-503A automatic pitch-control propeller as well. Thus, together with other necessary changes it was brought to the standard of Z-226MS. The aircraft was used in various gliding contests as the tow, two of them, the Euroglide 2008 and 2012 are commemorated by stickers on the left side of the rudder. The exhaust silencer was installed by Frýdlant Aero Club to keep the noise levels low.

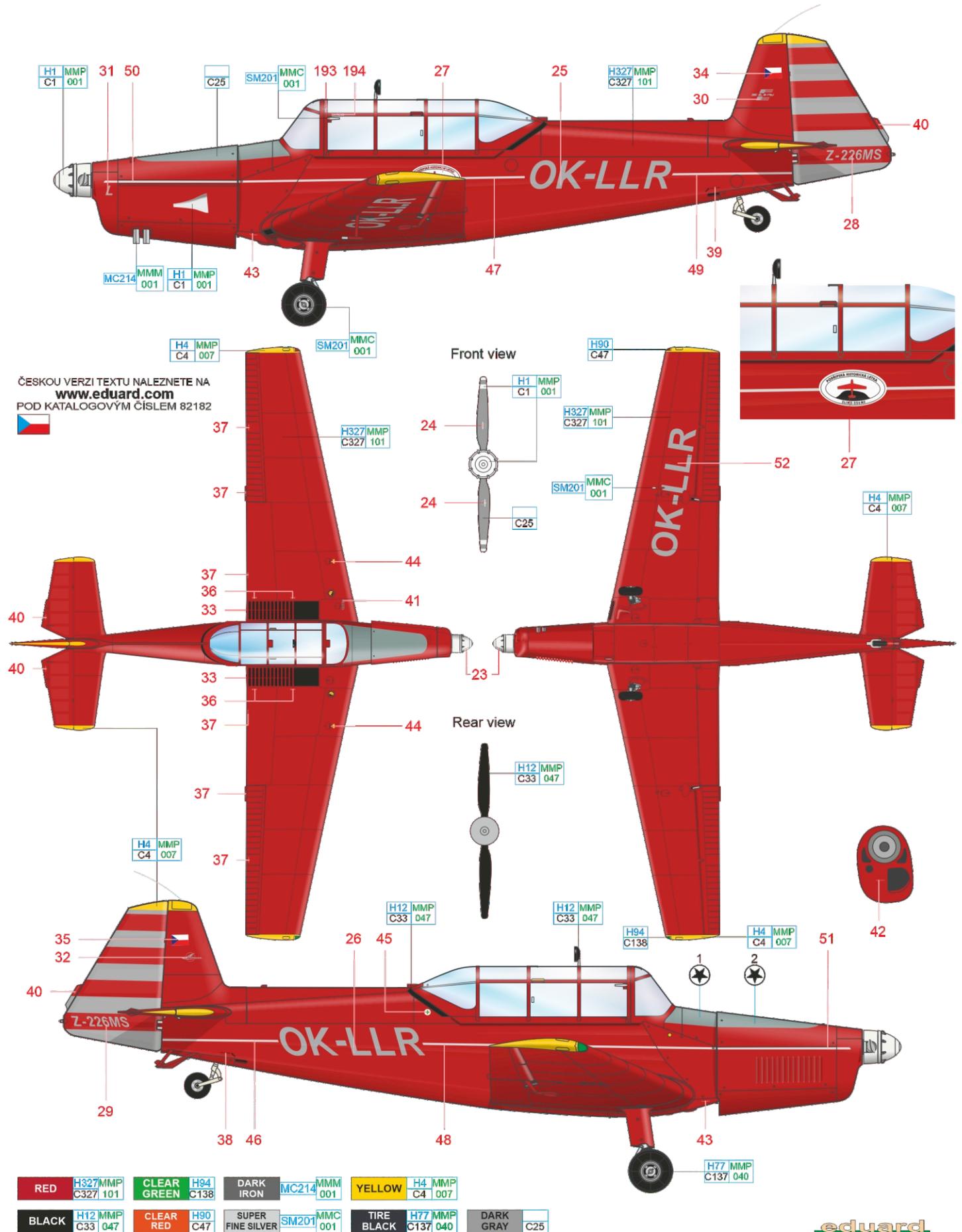


Unusual colors of the OK-JGT make it very attractive, and the matriculation gave it the nickname „Jogurt“ (yoghurt in Czech). The aircraft was manufactured as Z-126 and served with various Aero Clubs in the Central Bohemia region. For some time, it was used by Aero Club operating from international airport Praha-Ruzyně. It was modified to the Z-226MS standard in 1998 and brought by group of private owners later. They operate it from the Rakovník airfield today.

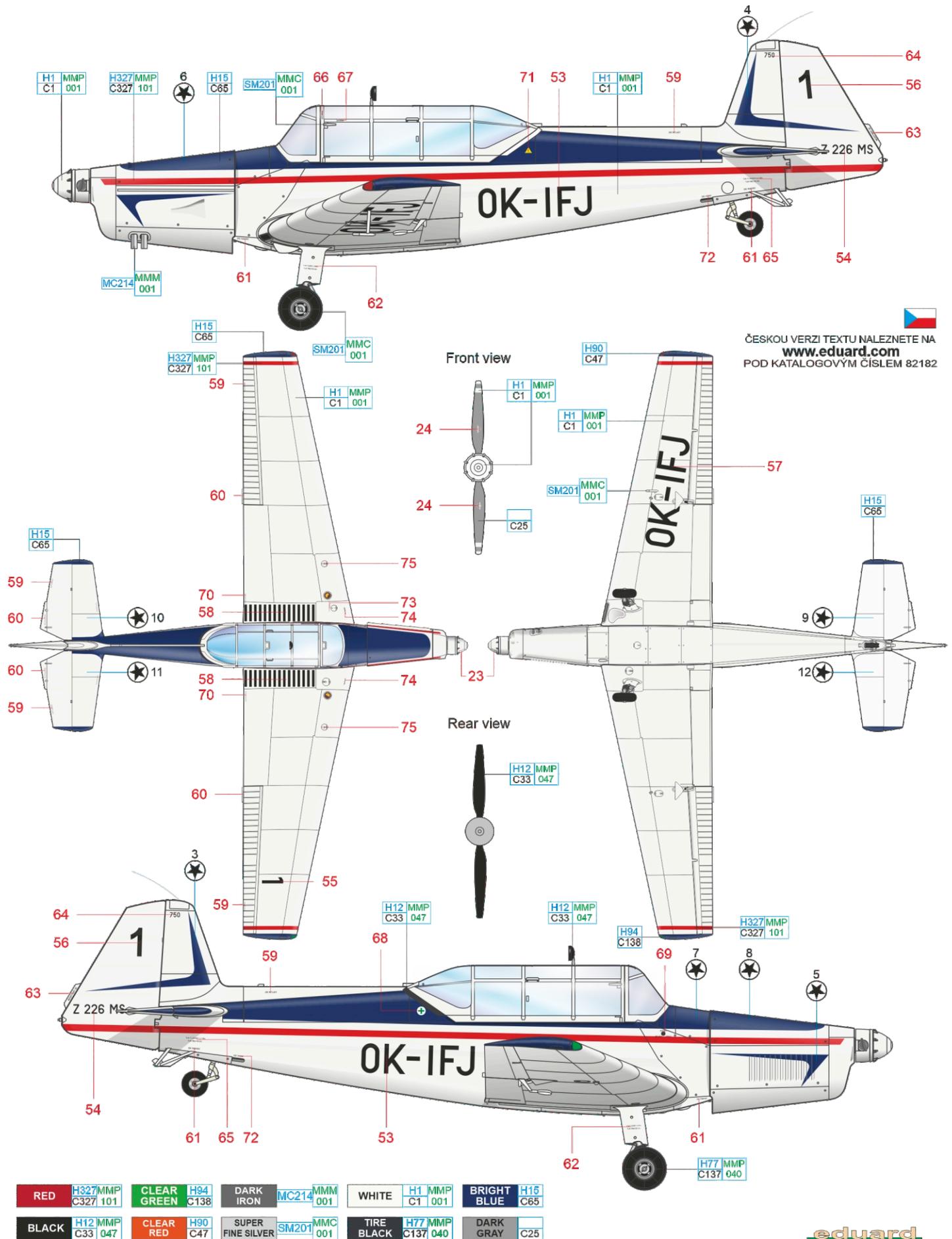


# D OK-LLR, No. 133, civic club owner, Sazená airfield, Czech Republic, 2015

Bright red color of this Trenér is work of Igor Rumanovský, who made the paintwork in May 2005 at the Nitra airfield. The aircraft was in possession of Aero Club Banská Bystrica and based at the nearby airfield Sliač. For some time, the OM-LLR, as it was matriculated in Slovakia, served at the Očová airfield, and then was sold to Czech Republic in 2011. The new owner was and still is the civic club Podřípská historická letka (translates as Historic flight of the Říp mountain foothills). At the present, the aircraft is non-airworthy and stored due to the ground accident damage in 2019. Repair is planned as the airframe still has a lot of flight hours to the end of its life cycle.



No. 750 Trenér was manufactured in 1954 as Z-126 and rebuilt to the Z-226MS standard during its second main overhaul. At the time the aircraft also got the present colors, which are the design of Jiří Hodan, pilot and renowned modeler. The aircraft experienced engine malfunction during the tow on July 1, 2012. Pilot, after hearing the massive bang from the engine, experienced loss of power and vibrations. After glider release, he stopped the engine and conducted emergency landing on the airfield successfully.



The towing workhorse of the Vysoké Mýto Aero Club was produced as Z-126 in 1956 and first served with Slaný Aero Club. It was handed over to Točná Aero Club in 1967 and two years later to Dvůr Králové Aero Club. Starting from 1976 it serves with Vysoké Mýto Aero Club until today. During third overhaul, finished in June 1981, the aircraft was rebuilt to the Z-226M standard and later to Z-226MS. On November 25, 2013, the engine malfunction forced pilot to conduct emergency landing on the field near to Kroměříž city. The aircraft was undamaged, but during the engine change another overhaul was made. Due to the minor damage to the rudder the fabric cover was changed in 2014 and it was left white without the blue stripes as on the rest of the aircraft. It flies with the white rudder until today.

