Z-326/C-305 Trenér Master

eduard

1/48 Scale Plastic Model Kit

item No. 82183

ProfiPACK edition

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.

In 1946, the Ministry of Defense of the then Czechoslovakia demanded an aircraft for the training of student pilots. It was to be a new domestic design with tandem cockpit arrangement allowing complex pilot training, including aerobatics or night flying.
The design team was led by the director of the Zlín Aviation Company Karel Tomáš, former co-founder of the Letov factory and chief designer of the Tatra aviation department in mid-30s. Tatra was manufacturing licensed Bückers Bü 131 but later continued with the aircraft of their own design such as Tatra T-101 and T-201. It was no wonder Karel Tomáš based the design of the new type on the T-201, however, he led the design team remotely, because he had to leave for Avia in 1946 and further development of the Trener was 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 construction, the rudders covered with canvas. 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 the design of the team of Mr. Tomáš had been declared winner 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, aircraft were also supplied to aero clubs, and exported to Poland and Romania. Problems with the wooden wing led to its redesign to an all-metal structure. The shape of the wing was modified, as the originally bent trailing edge was "straightened". The tail surfaces were also given a metal construction, and the curved tips were consequently replaced by straight ends to simplify production. The hydraulic brakes were replaced by simpler mechanical ones. 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. Altogether, 166 of the Z-126 (military designation C-105) were produced and exported to eleven countries.

The six-cylinder introduced

Thanks to the Z-26 line, aerobatic training became a common thing in the Czechoslovakia, and also towing capability was recognized. However, the four-cylinder engine lacked power, so a six-cylinder Minor 6-III with 118 kW (160 hp) was installed, coupled with a towing propeller. The longer engine necessitated moving the oil tank from the engine bulkhead to the root of the left wing, and some weight was saved by removing the instruments and controls from the forward cockpit, where only the seat remained. The electric control of the flaps was also removed and replaced with a mechanical one. All this created the "workhorse" of the aero clubs of the time, the Z-226B Bohatýr (Hero) tug.
Thanks to the experience with the Z-226B version, it was decided to build a trainer version, the Z-226T based on the six-cylinder design. And this version proved to be excellent aerobatic aircraft.

Another engine change

In the second half of the seventies, a shortage of Minor 6-III engines caused the need to retrofit four-cylinder Minor 4-IIIs 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 built. 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 advanced 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 cruising or a towing one could be installed.
From 1986, some Z-226Ms began to be converted to the Z-226MS version. The modification was made by the installation of V-503A metal propeller with automatic pitch control. The development subsequently led to a modernized version Z-326 Trener Master (C-305) and then a derivative version Z-526. Another significant modernization emerged in the form of the Z-726 type, which, however, was the swan song of the development of two-seat Trainers.

This kit: Z-326 Trenér Master

In 1957, design of the Trenér underwent a major upgrade. The aircraft received retractable landing gear, a new cockpit canopy, hydraulic brake controls and the ability to install additional fuel tanks on the wing tips. At the same time, the volume of the internal tanks was increased from 35 liters to 45 liters. The dihedral of the wing was also changed. The WM 6-III engine was used, later replaced by the M-137 unit. The version powered by the latter was designated Z-326M. The installation of the V-503A automatically adjustable propeller resulted in the Z-326MF version. Out of a total production of 420 units, ten Z-326 Trener Master aircraft were delivered to the then Czechoslovak People's Army for the training purposes of new recruits. These were designated Zlin C-305 and were equipped with undercarriage signal lights and the flares dispenser under the belly. Most of the production of Z-326 went for export to many countries.

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 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 ✶ 記号の説明

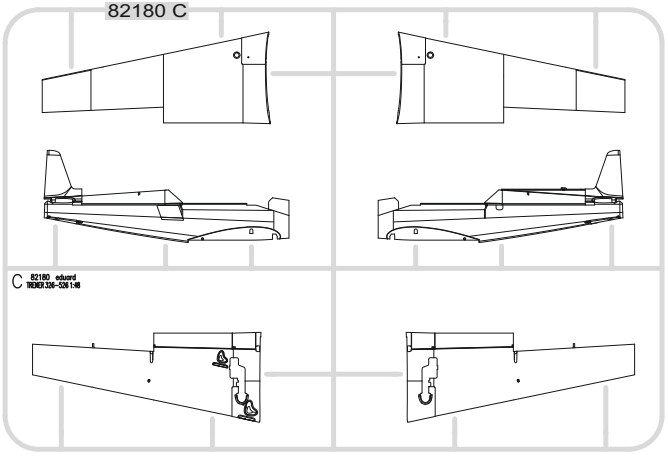
OPTIONAL VOLBA	BEND OHNOUT	SAND BROUSIT	OPEN HOLE VYVRTAT OTVOR	SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ	REMOVE ODŘÍZNOUT	REVERSE SIDE OTOČIT	APPLY EDUARD MASK AND PAINT POUŽÍT EDUARD MASK NABARVIT

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

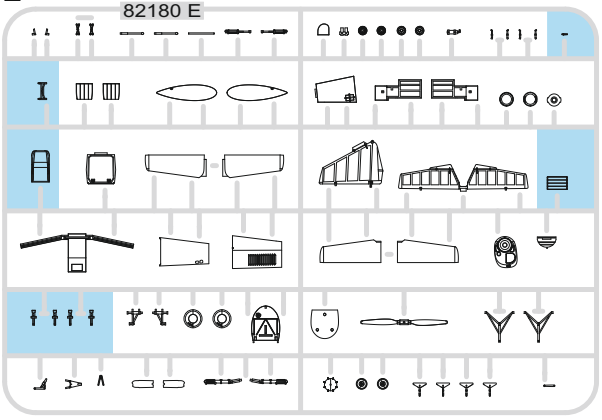
PARTS ✶ DÍLY ✶ TEILE ✶ PIÈCES ✶ 部品

PLASTIC PARTS

C>



E>



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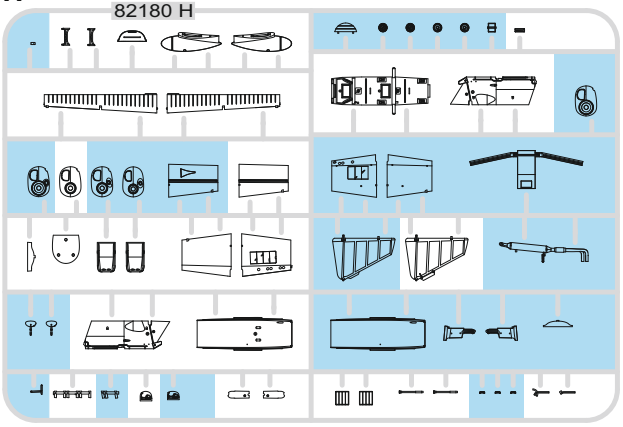

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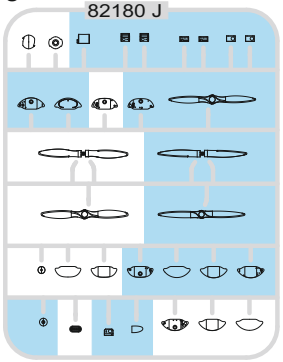

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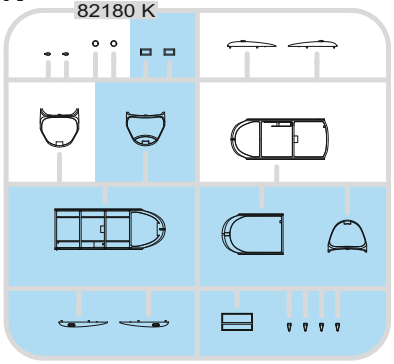
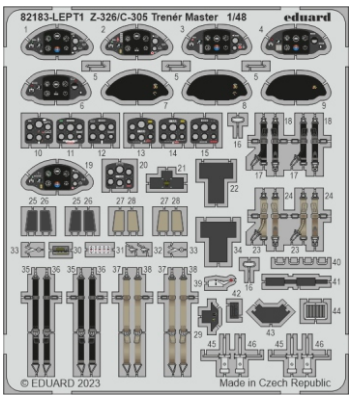
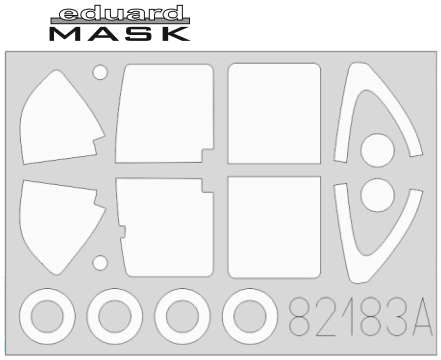
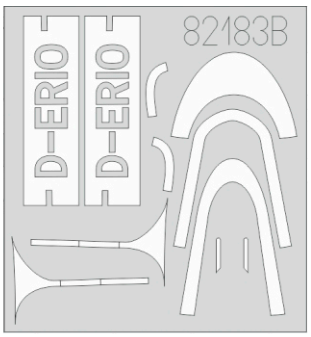


PE - PHOTO ETCHED DETAIL PARTS







-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

GSi Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H1	C1	WHITE
H2	C2	BLACK
H3	C3	RED
H4	C4	YELLOW
H5	C5	BLUE
H8	C8	SILVER
H12	C33	FLAT BLACK
H14	C59	ORANGE
H15	C65	BRIGHT BLUE
H25	C34	SKY BLUE
H35	C80	COBALT BLUE
H37	C43	WOOD BROWN
H77	C137	TIRE BLACK
H82	C31	DARK GRAY
H85	C45	SAIL COLOR
H90	C47	CLEAR RED
H94	C138	CLEAR GREEN
H303	C303	GREEN
H308	C308	GRAY

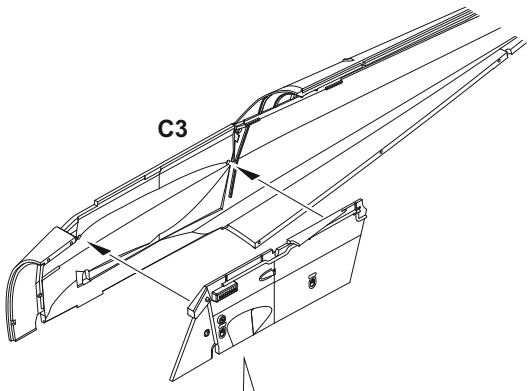
GSi Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H310	C310	BROWN
H327	C327	RED
H328	C328	BLUE
H413	C113	RLM04 YELLOW
H418	C118	RLM78 LIGHT BLUE
	C20	LIGHT BLUE
	C25	SEAGRAY
	C29	HULL RED
	C35	IJA GRAY
	C57	METALLIC BLUE GREEN
	C74	AIR SUPERIORITY BLUE
	C119	SAND YELLOW
	C159	SUPER SILVER
	C391	INTERIOR GREEN
Mr.METAL COLOR		
MC214		DARK IRON
MC215		COPPER
MC217		GOLD
MC218		ALUMINIUM

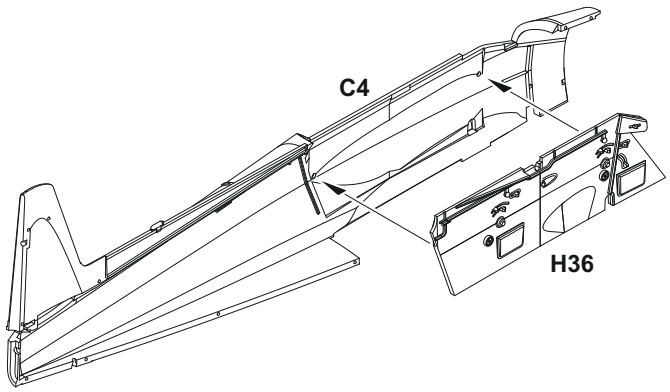
1 = H308 C308 GRAY - **MARKINGS A;C;D;E;F** NOTE: marking D except cockpit walls

C20 LIGHT BLUE - **MARKINGS B;D** NOTE: marking D floor only

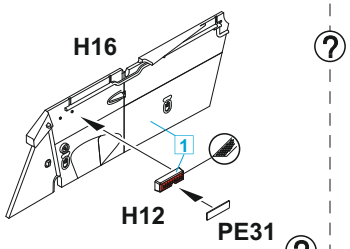
2 = H12 C33 FLAT BLACK - **MARKINGS A;B;C;E;F**

H85 C45 SAIL COLOUR - **MARKING D**

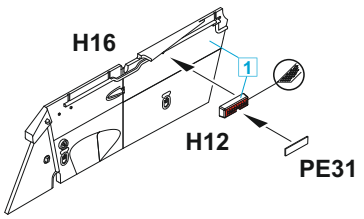




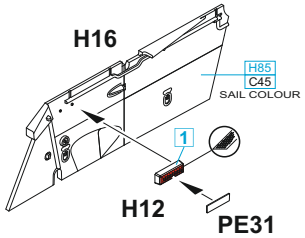
MARKINGS A,C,E,F

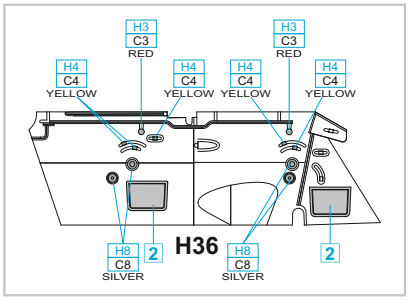


MARKING B

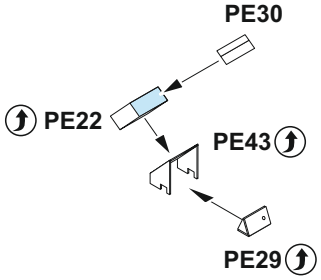


MARKING D

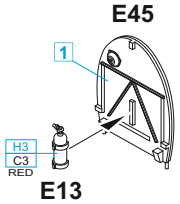


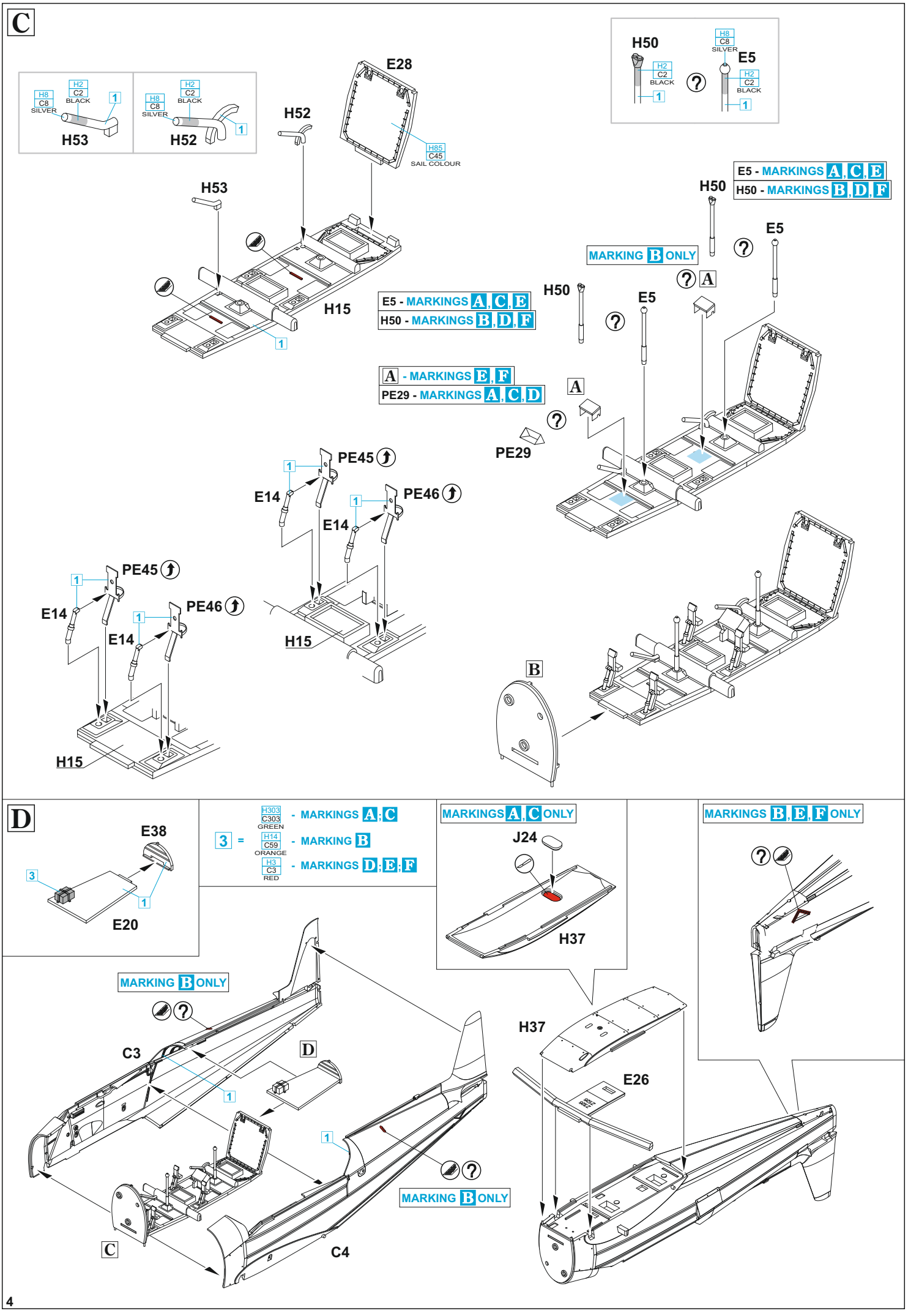


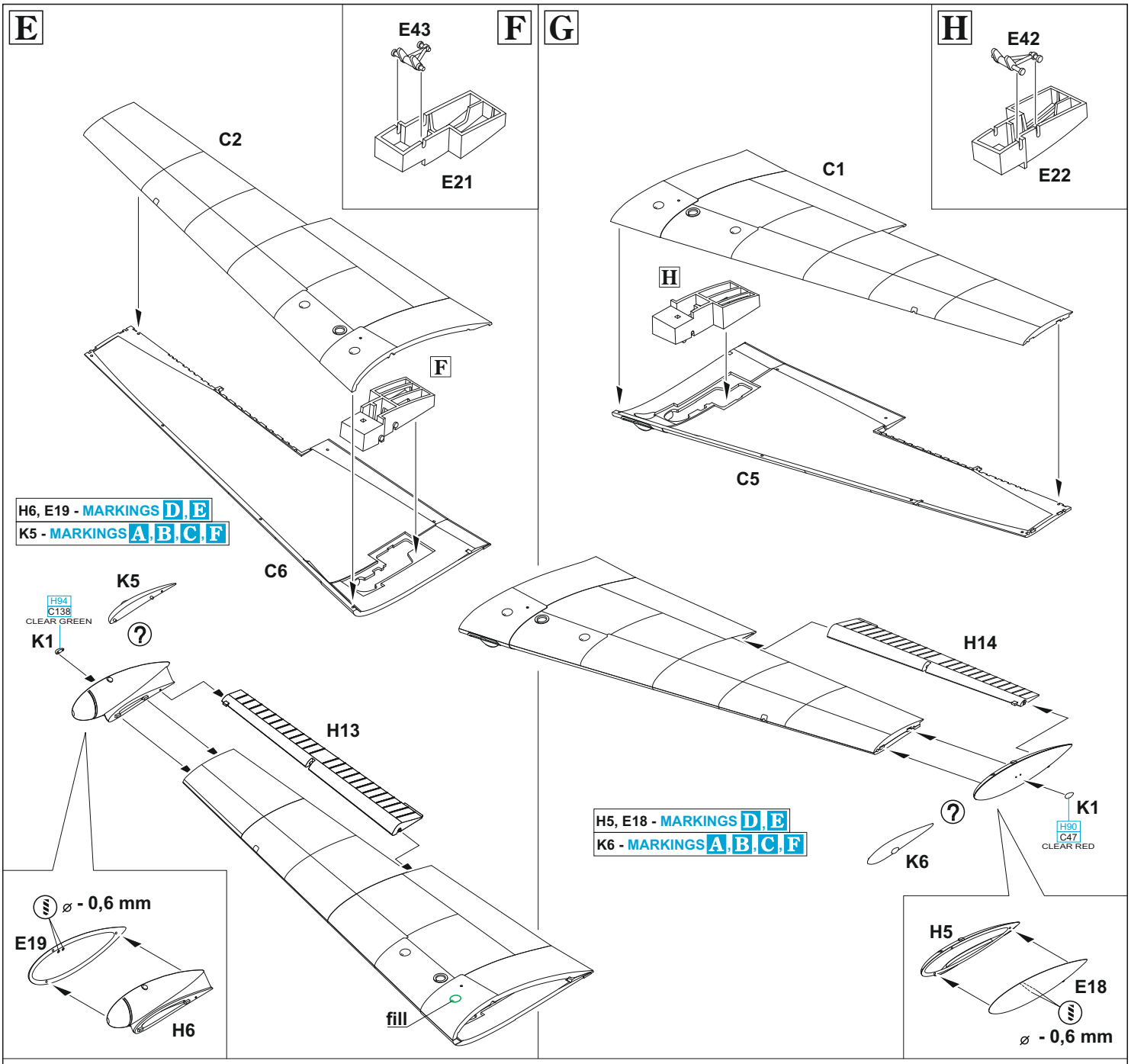
A ? **MARKINGS B,E,F ONLY**

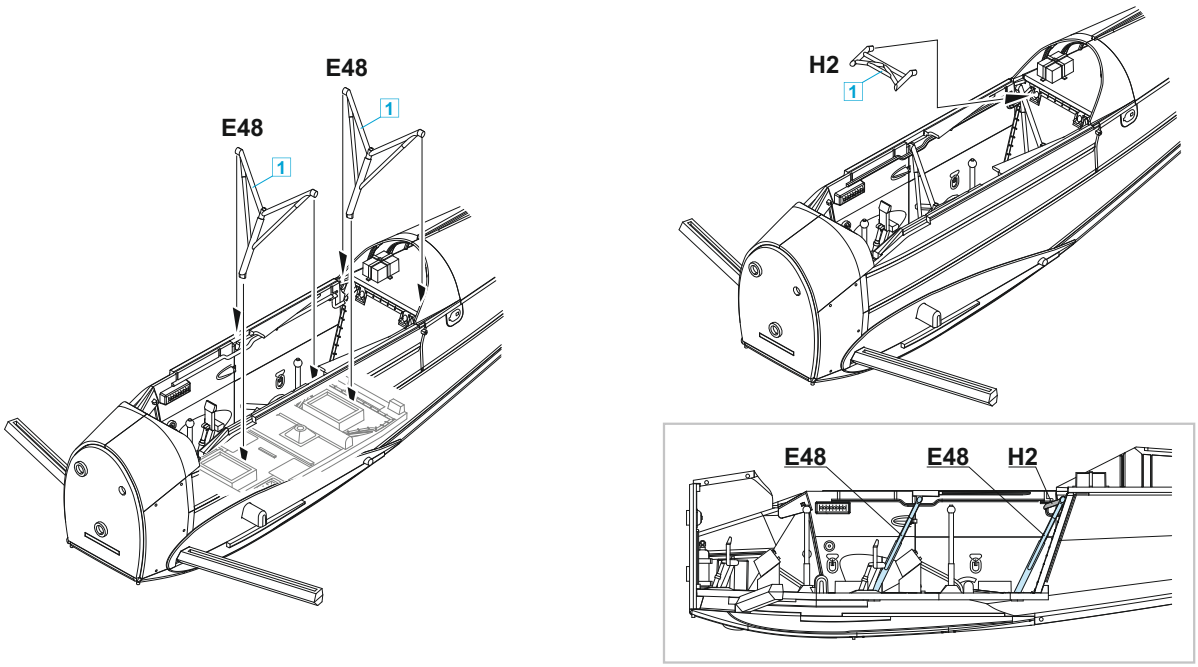


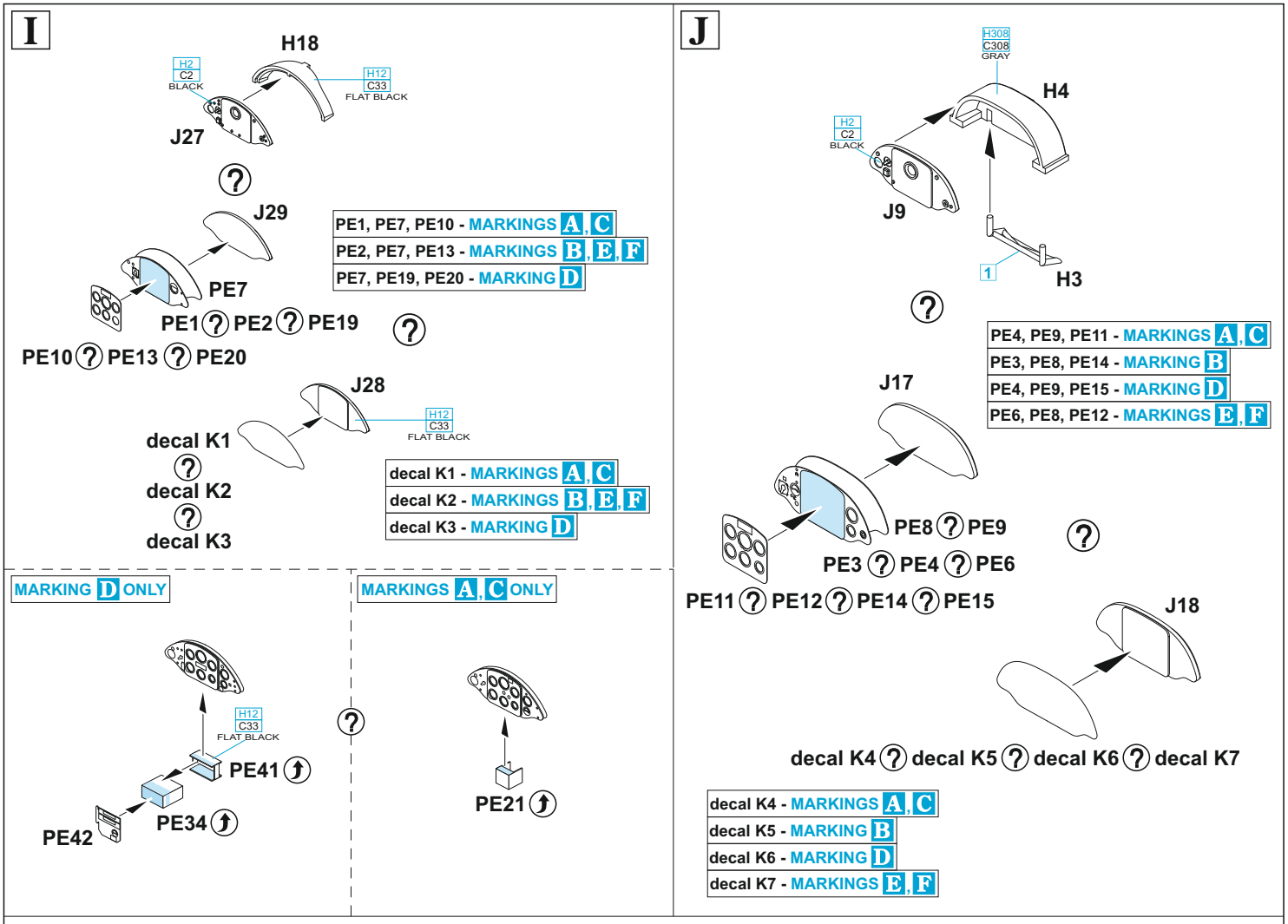
B

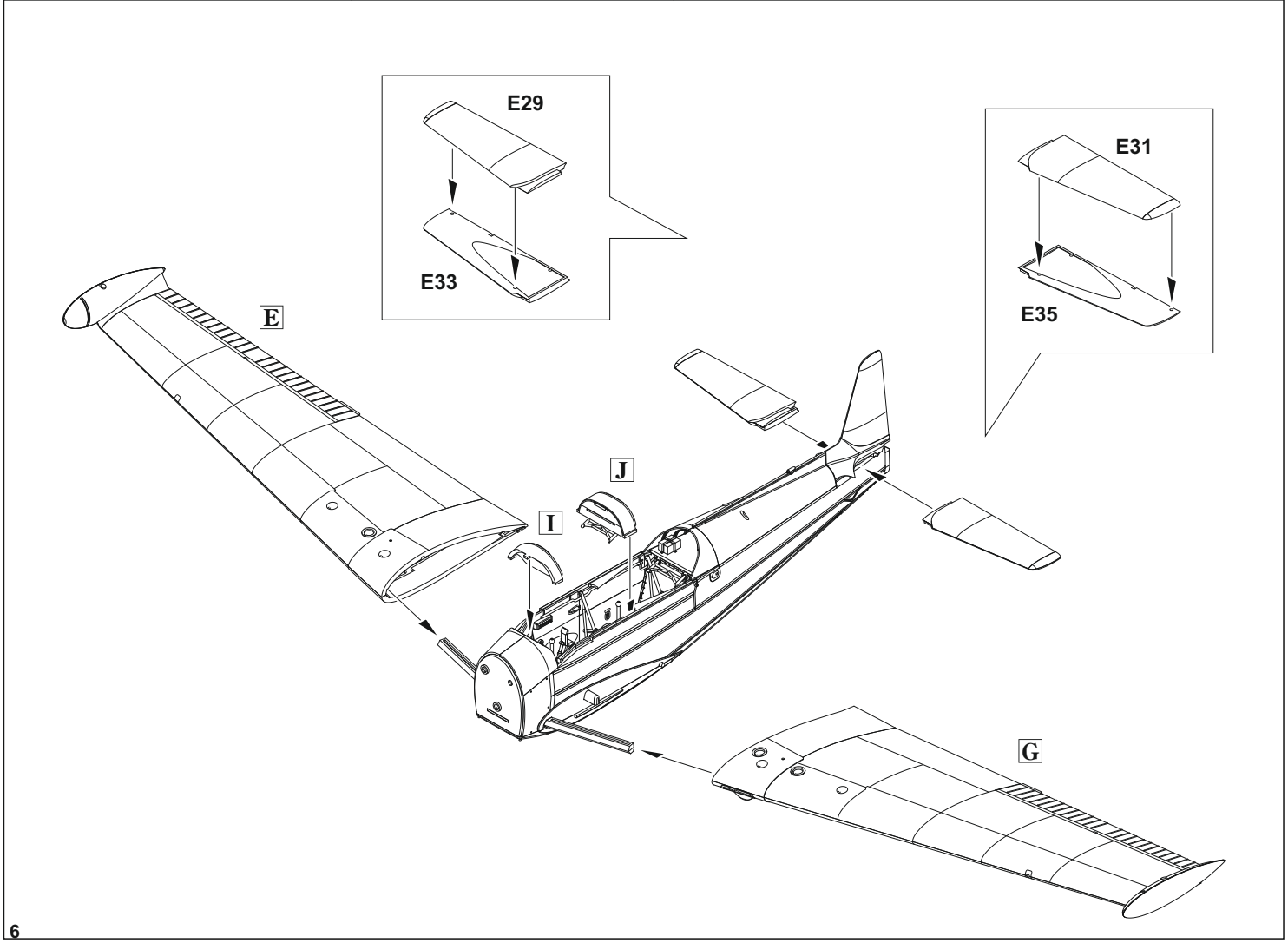



C
H8 C8 SILVER
H2 C2 BLACK
1
H53
H52
E28
H85 C45 SAIL COLOUR
H50
E5
E5 - MARKINGS A, C, E
H50 - MARKINGS B, D, F
MARKING B ONLY
A - MARKINGS E, F
PE29 - MARKINGS A, C, D
PE29
PE45
PE46
E14
H15
B
D
E38
E20
3
H303 C303 GREEN
H14 C59 ORANGE
H3 C3 RED
3 = - MARKINGS A, C
- MARKING B
- MARKINGS D, E, F
MARKINGS A, C ONLY
J24
H37
MARKINGS B, E, F ONLY
C3
C4
E26


E
F
G
H
E43
E21
E42
E22
C2
C1
H
F
C5
C6
H6, E19 - MARKINGS D, E
K5 - MARKINGS A, B, C, F
H5, E18 - MARKINGS D, E
K6 - MARKINGS A, B, C, F
K5
H94
C138
CLEAR GREEN
K1
H13
H14
K1
H90
C47
CLEAR RED
K6
⌀ - 0,6 mm
E19
H6
fill
H5
E18
⌀ - 0,6 mm

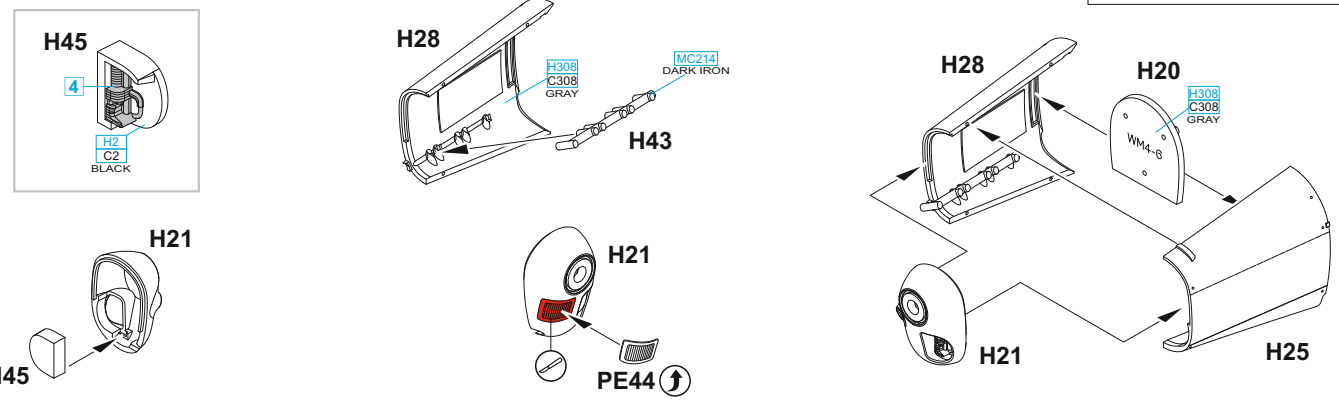

E48
1
E48
1
H2
1
E48
E48
H2


I
H18
H2
C2
BLACK
H12
C33
FLAT BLACK
J27
J29
PE7
PE1 PE2 PE19
PE10 PE13 PE20
PE1, PE7, PE10 - MARKINGS A, C
PE2, PE7, PE13 - MARKINGS B, E, F
PE7, PE19, PE20 - MARKING D
J28
decal K1
decal K2
decal K3
decal K1 - MARKINGS A, C
decal K2 - MARKINGS B, E, F
decal K3 - MARKING D
MARKING D ONLY
PE41
PE34
PE42
MARKINGS A, C ONLY
PE21
J
H308
C308
GRAY
H4
J9
H3
1
PE4, PE9, PE11 - MARKINGS A, C
PE3, PE8, PE14 - MARKING B
PE4, PE9, PE15 - MARKING D
PE6, PE8, PE12 - MARKINGS E, F
J17
PE8 PE9
PE3 PE4 PE6
PE11 PE12 PE14 PE15
J18
decal K4 decal K5 decal K6 decal K7
decal K4 - MARKINGS A, C
decal K5 - MARKING B
decal K6 - MARKING D
decal K7 - MARKINGS E, F

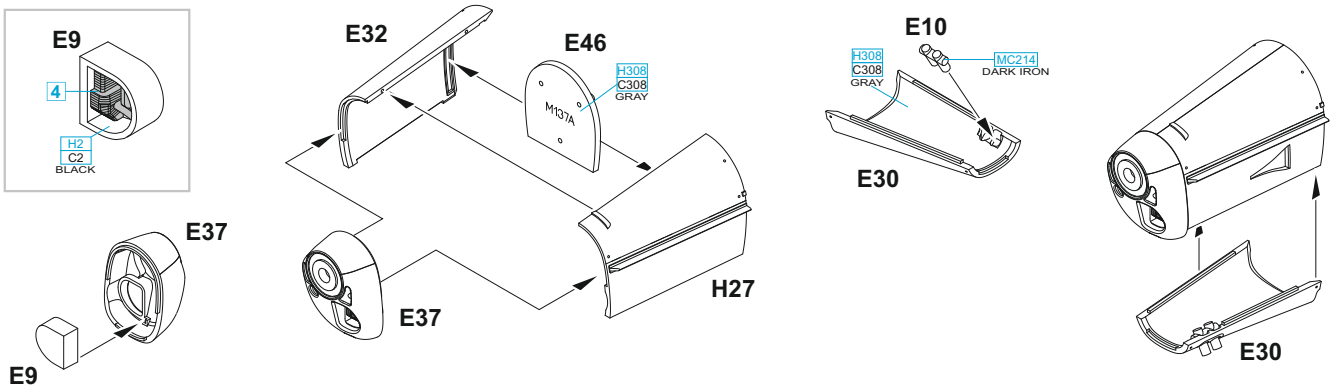

E29
E33
E31
E35
E
J
I
G

K MARKINGS A, C, E, F

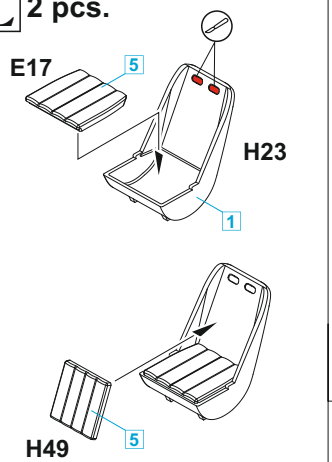
4 = 90% MC218 ALUMINIUM + 10% MC217 GOLD

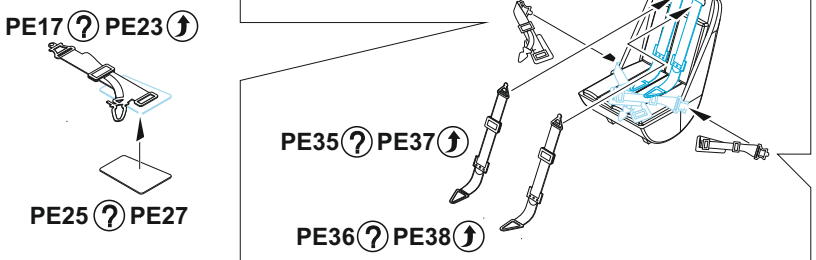


MARKINGS B, D



L 2 pcs.





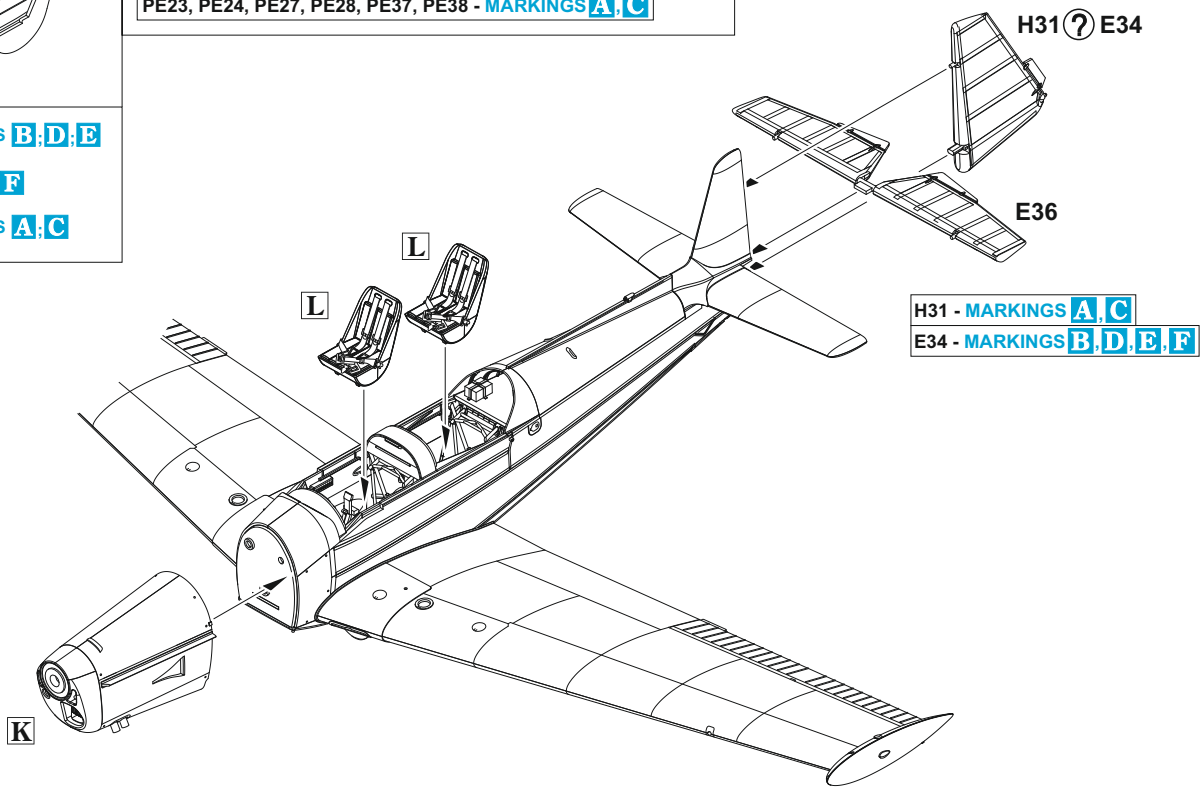
PE17, PE18, PE25, PE26, PE35, PE36 - MARKINGS B, D, E, F

PE23, PE24, PE27, PE28, PE37, PE38 - MARKINGS A, C

H12 C33 FLAT BLACK - MARKINGS B; D; E

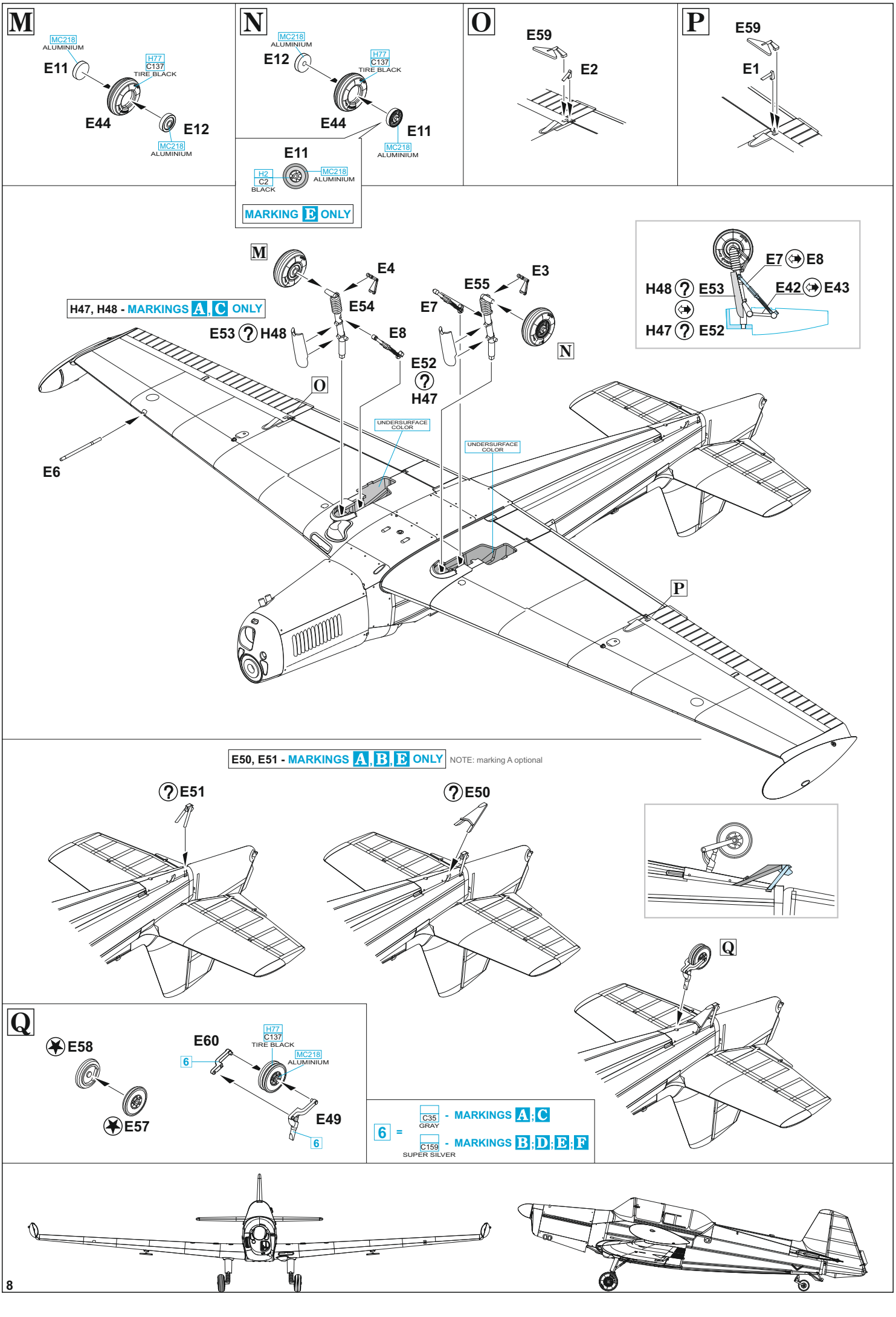
5 = H82 C31 DARK GRAY - MARKING F

C119 SANDY YELLOW - MARKINGS A; C

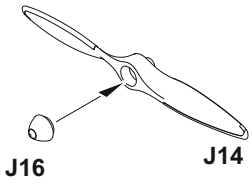


H31 - MARKINGS A, C

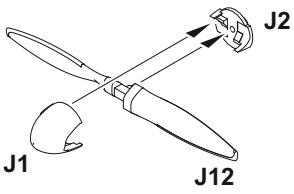
E34 - MARKINGS B, D, E, F


M
MC218 ALUMINIUM
E11
H77 C137 TIRE BLACK
E44
E12
MC218 ALUMINIUM
N
MC218 ALUMINIUM
E12
H77 C137 TIRE BLACK
E44
E11
MC218 ALUMINIUM
E11
H2 C2 BLACK
MC218 ALUMINIUM
MARKING E ONLY
O
E59
E2
P
E59
E1
M
E4
E54
E53 ? H48
E8
E52 ? H47
O
E6
H47, H48 - MARKINGS A, C ONLY
E55
E3
E7
N
UNDERSURFACE COLOR
UNDERSURFACE COLOR
P
E7 E8
H48 ? E53
E42 E43
H47 ? E52
E50, E51 - MARKINGS A, B, E ONLY
NOTE: marking A optional
? E51
? E50
Q
E58
E57
E60
6
H77 C137 TIRE BLACK
MC218 ALUMINIUM
E49
6
6 = C35 GRAY - MARKINGS A; C
C159 SUPER SILVER - MARKINGS B; D; E; F
Q

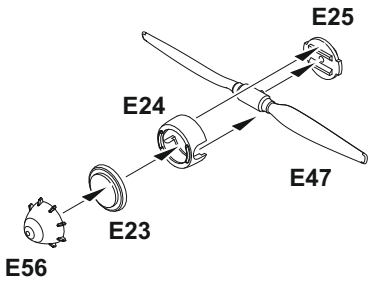
R MARKINGS A, C, E, F



MARKING D



MARKING B



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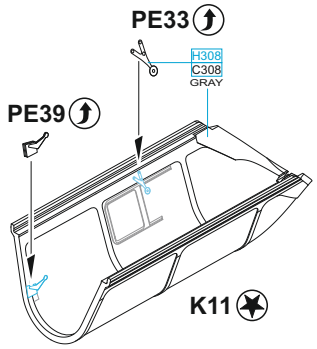

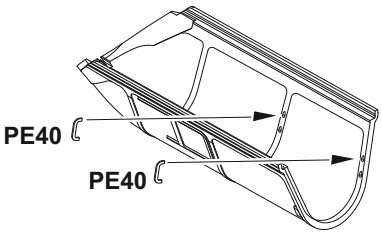

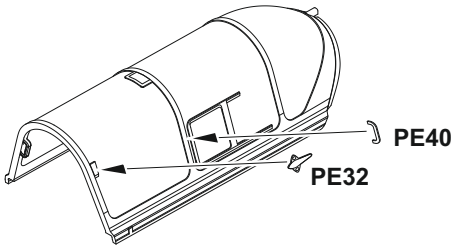

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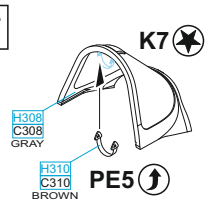
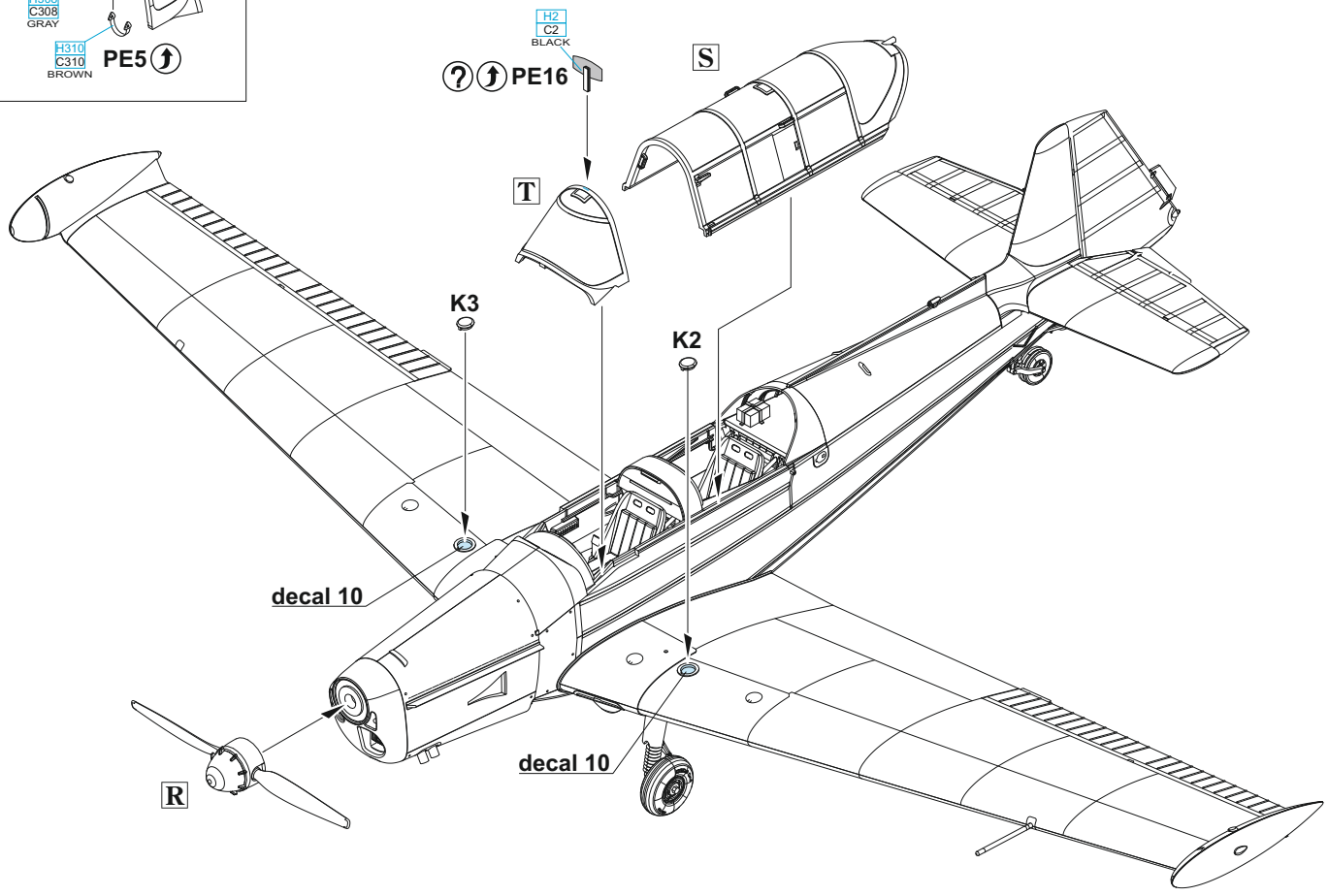
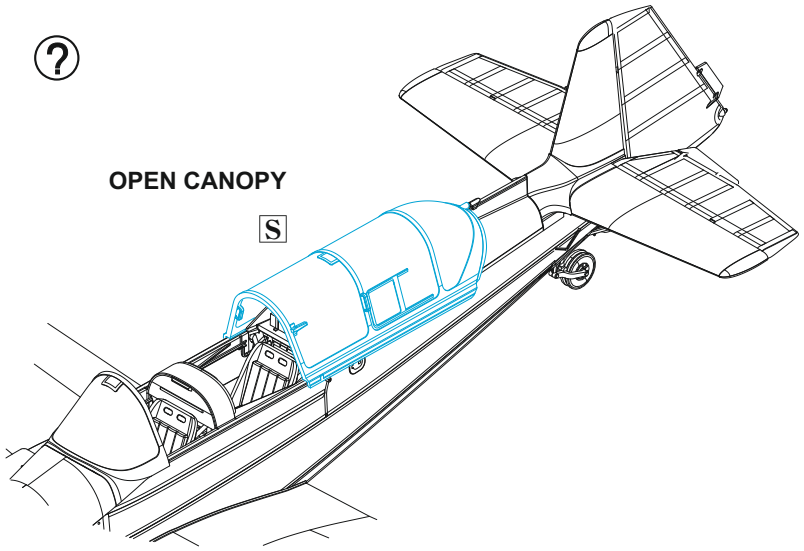


PE16 - MARKING A ONLY NOTE: for use together with E50 and E51 parts ONLY





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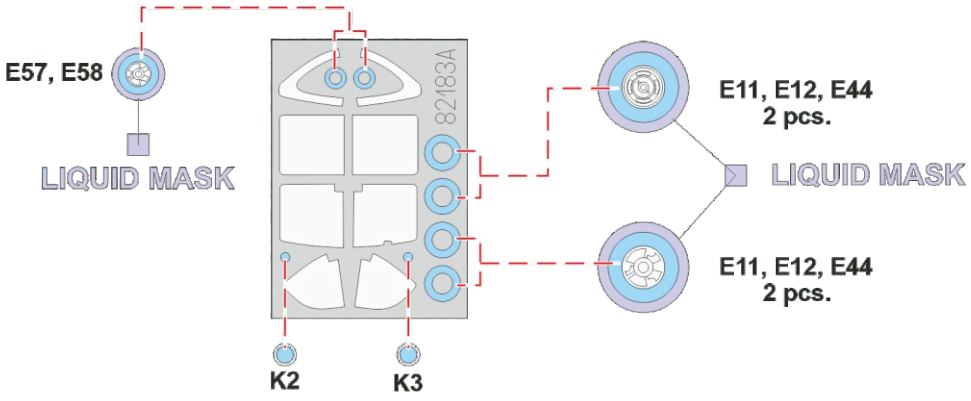

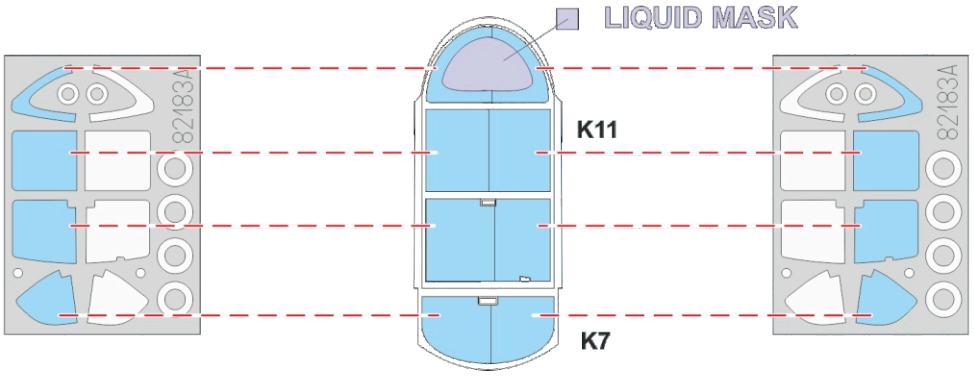

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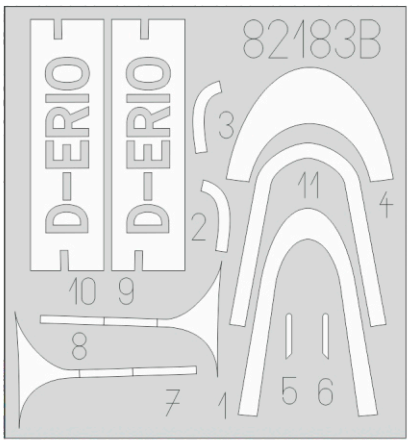
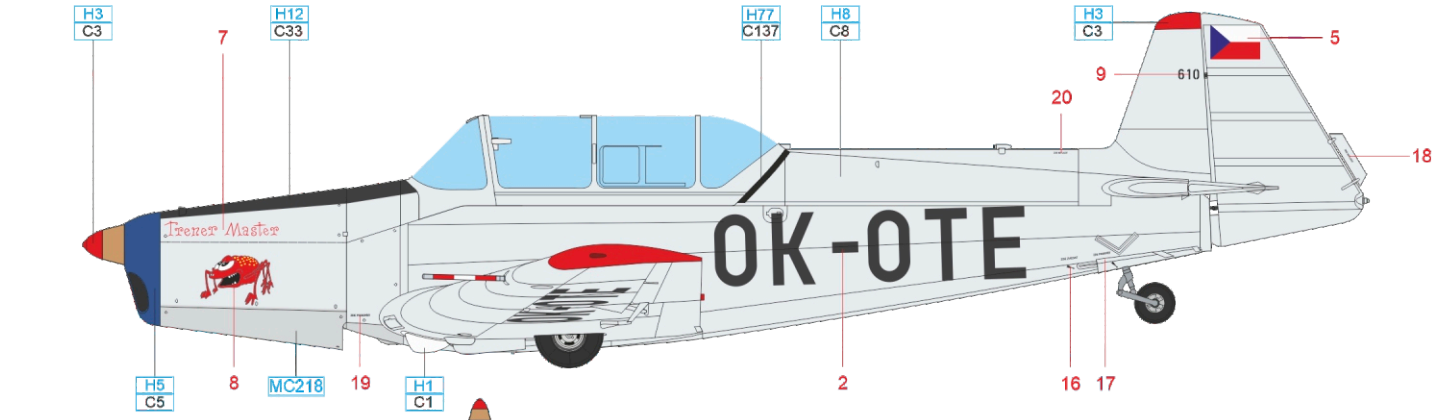
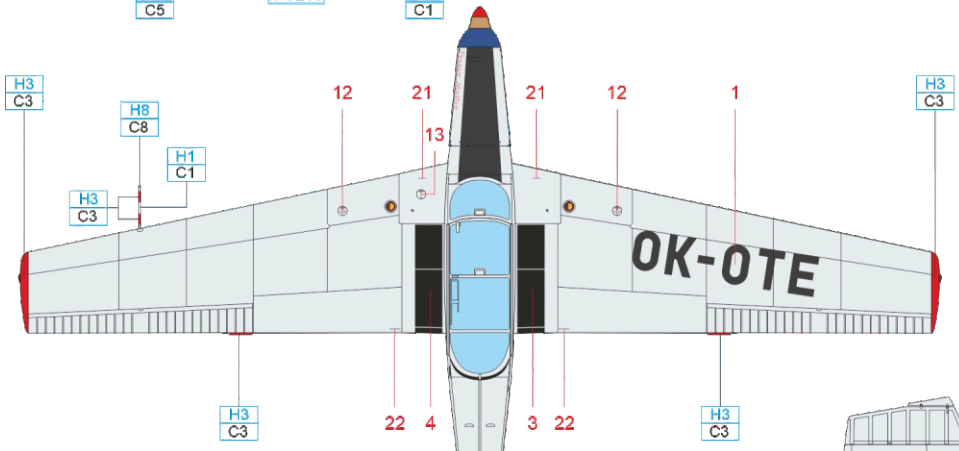


A Z-326, No. 610, Kladno Aero Club, Kladno Airfield, Czechoslovakia, 1975

This aircraft served as C-305 in the military aeroclub of Czechoslovak People's Army for basic training of student pilots. During this service an unspecified collision (on the ground) with other aircraft occurred according to some sources, resulting in fuselage damage. The aircraft was repaired but lost its aerobatic category classification and was overhanded to the civilian Kladno Aero Club at the end of September 1972. Prior to conversion to the tug version, it was used for training and navigation flights. The aircraft retained the overall silver livery as it was used in army, but the nose was adorned with blue color, while wingtips and top of the vertical stabilizer were painted red. More to it, the cartoon of the smiling crab was painted on the port side of the nose with unusually stylized Trenér Master inscription above it. The painting was based on a cartoon by Pavel Kantorek, Czechoslovak professor of physical science at Ryerson University, Toronto. He was author of many humorous cartoons with animals starring in the main role.





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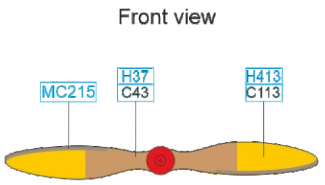
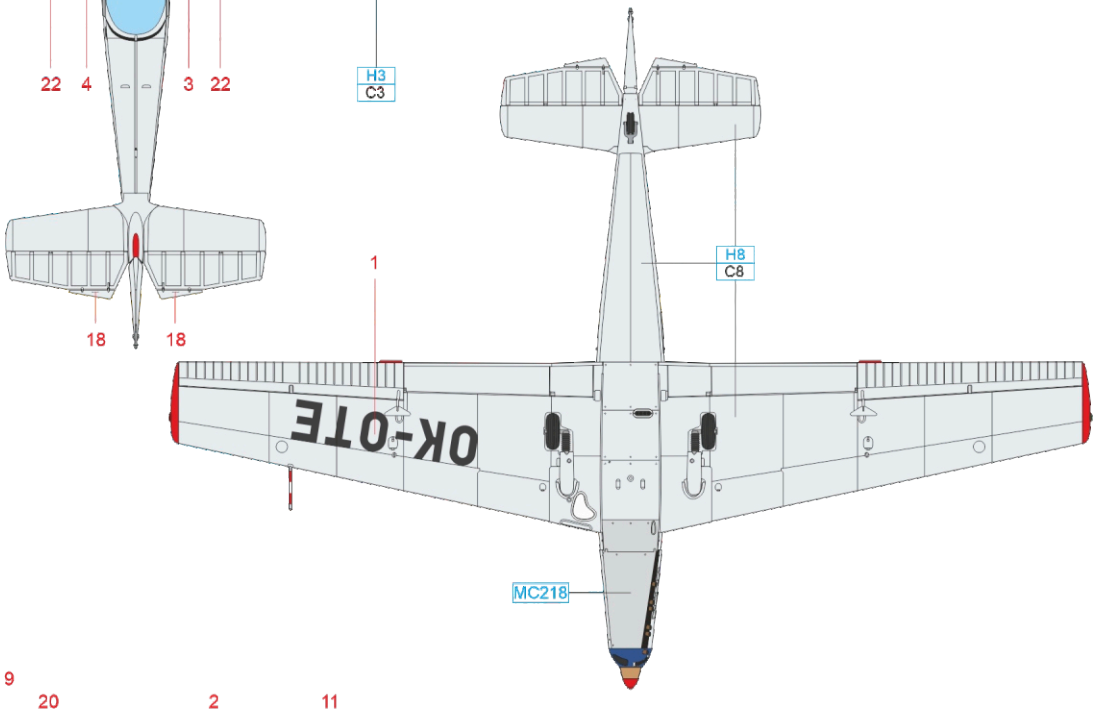
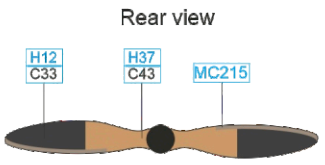
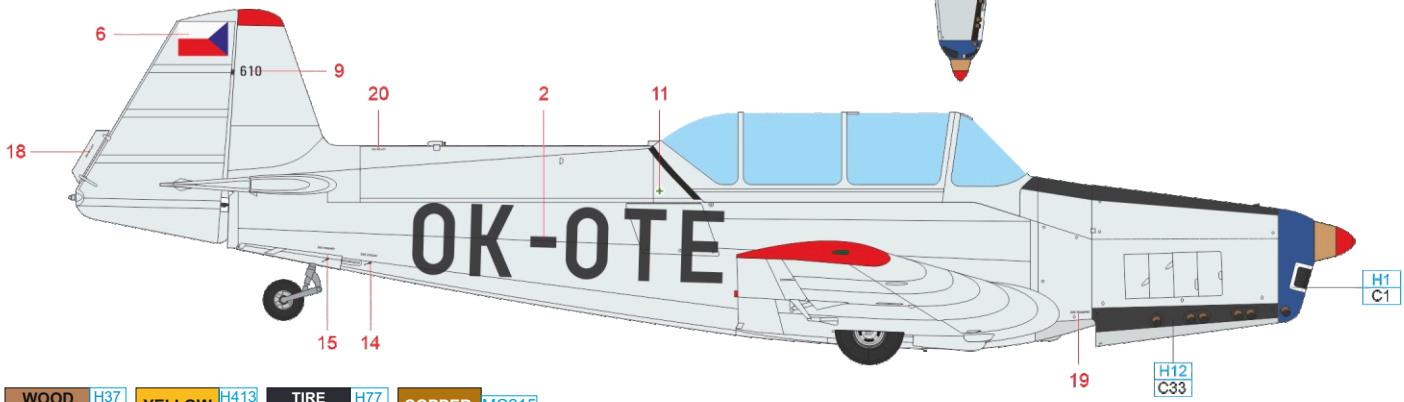




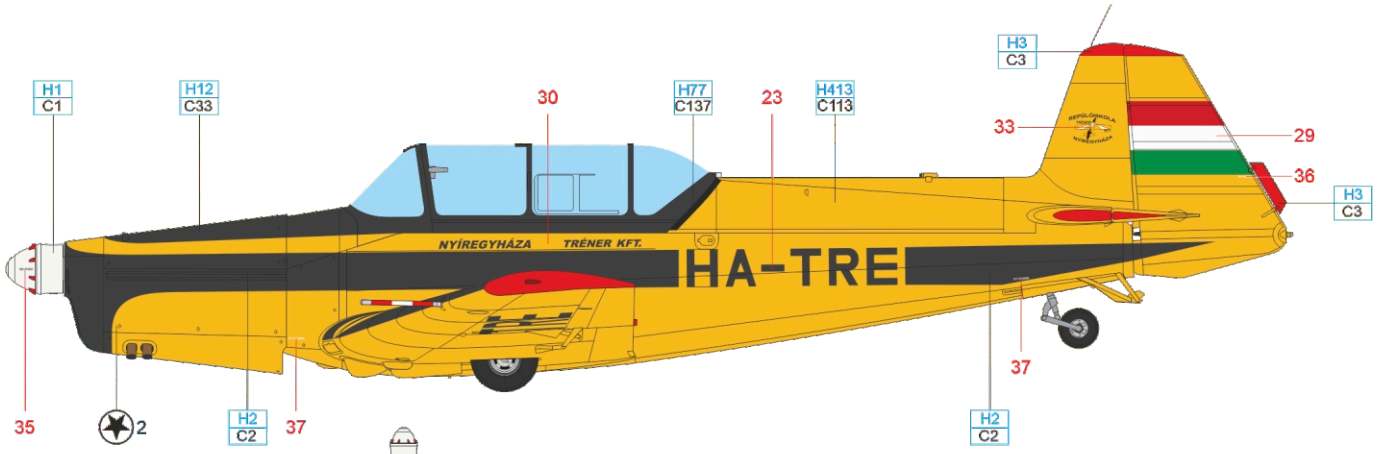


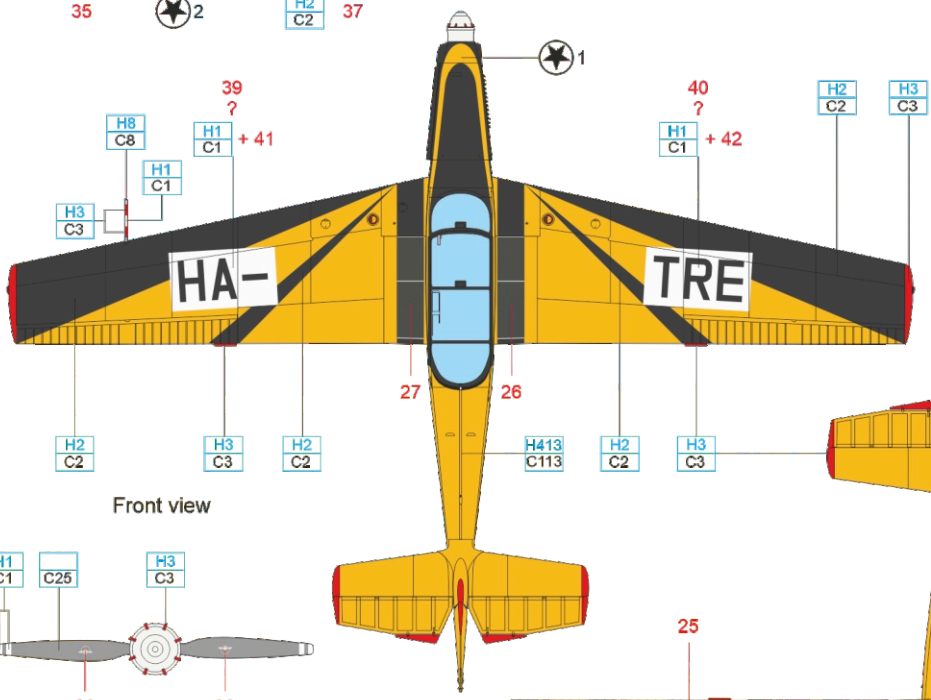


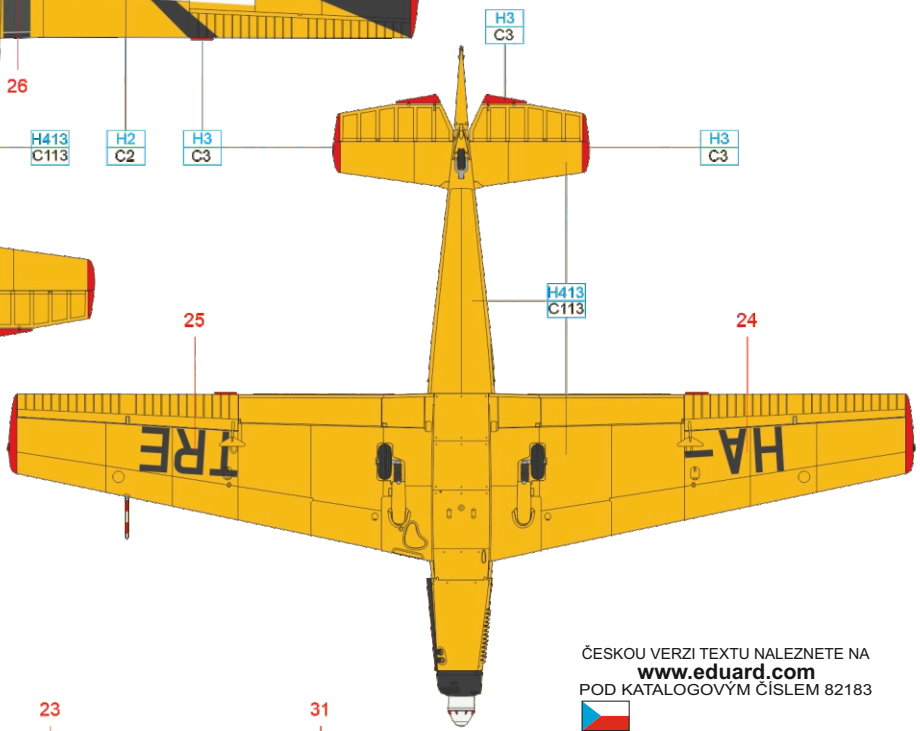
WOOD BROWN	H37 C43	YELLOW	H413 C113	TIRE BLACK	H77 C137	COPPER	MC215				
SILVER	H8 C8	RED	H3 C3	LIGHT BLUE	H5 C5	BLACK	H12 C33	WHITE	H1 C1	ALUMINIUM	MC218

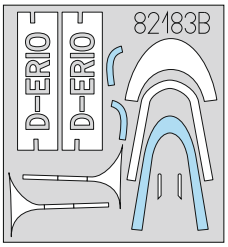
B Z-326MF, No. 918, Repülőiskola Nyíregyháza, Nyíregyháza Airport, Hungaria, 2020

Hungaria is one of the countries, where the Trenér family is very popular. There were 12 of Z-326 Trenér Masters delivered directly from the factory in 1961 and 1962, but this one is not one of them. This aircraft was sold to Gabon (Air service Libreville) in December 1966 with registration mark TR-LMX and later was delivered to France, where it was flying under registration F-BSTA as Z-326. The conversion to MF version was done in Hungary and the aircraft sported non-standard right engine cover – the one used on Z-326 powered by Walter Minor 6-III engine, i.e., with four wide louvres. This was later changed for the standard cover for the M-137 engine. Today, the University of Nyíregyháza is the owner of the aircraft and uses it along other ones for pilot training of its students.









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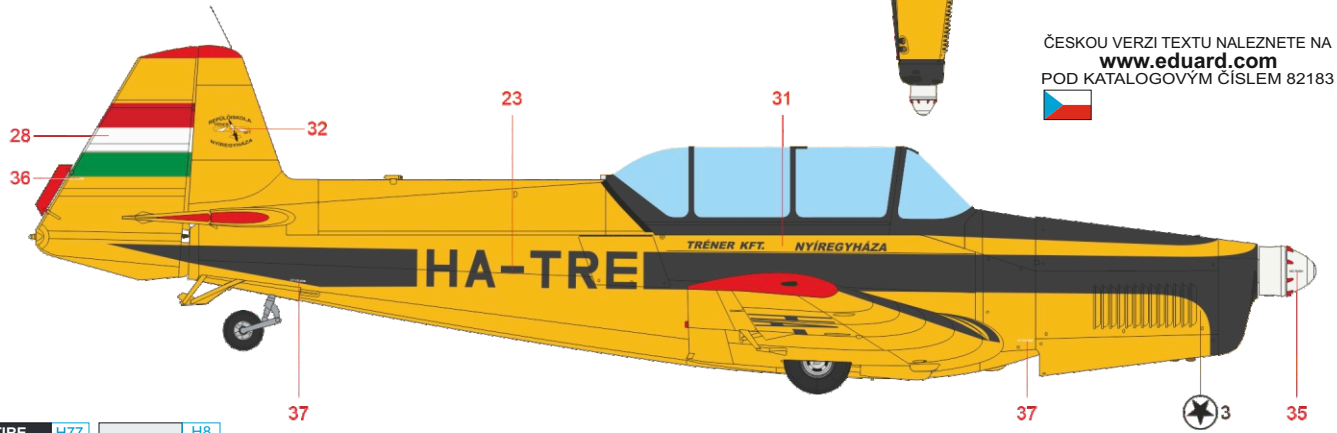
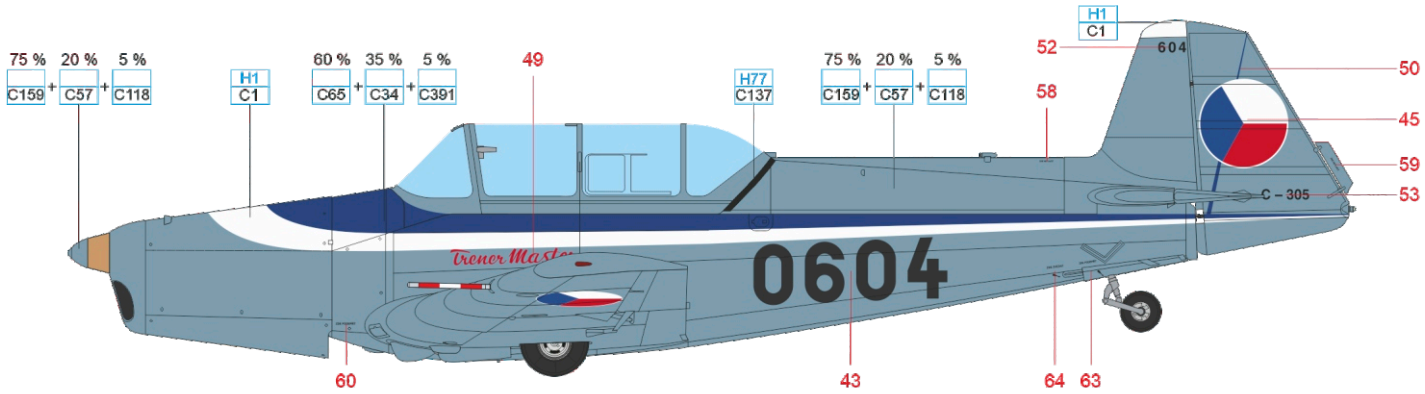
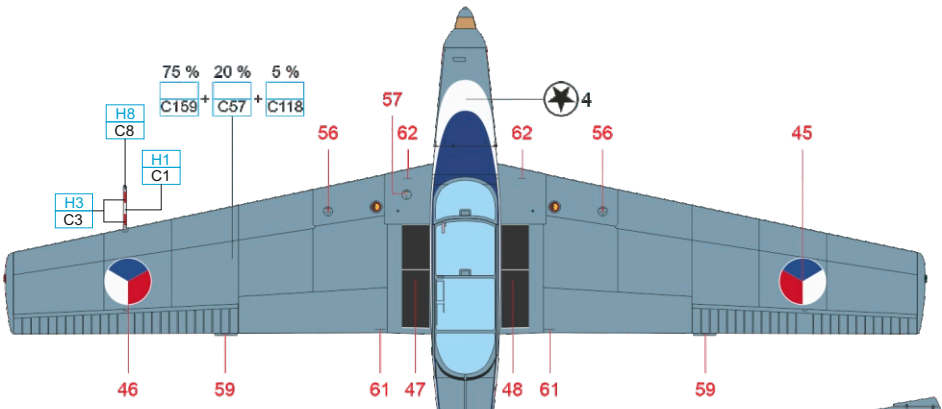


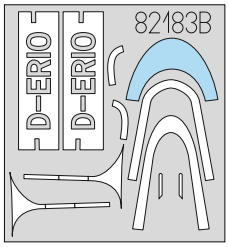
TIRE BLACK	H77 C137	SILVER	H8 C8								
YELLOW	H413 C113	BLACK	H2 C2	RED	H3 C3	WHITE	H1 C1	SEAGRAY	C25	BLACK	H12 C33

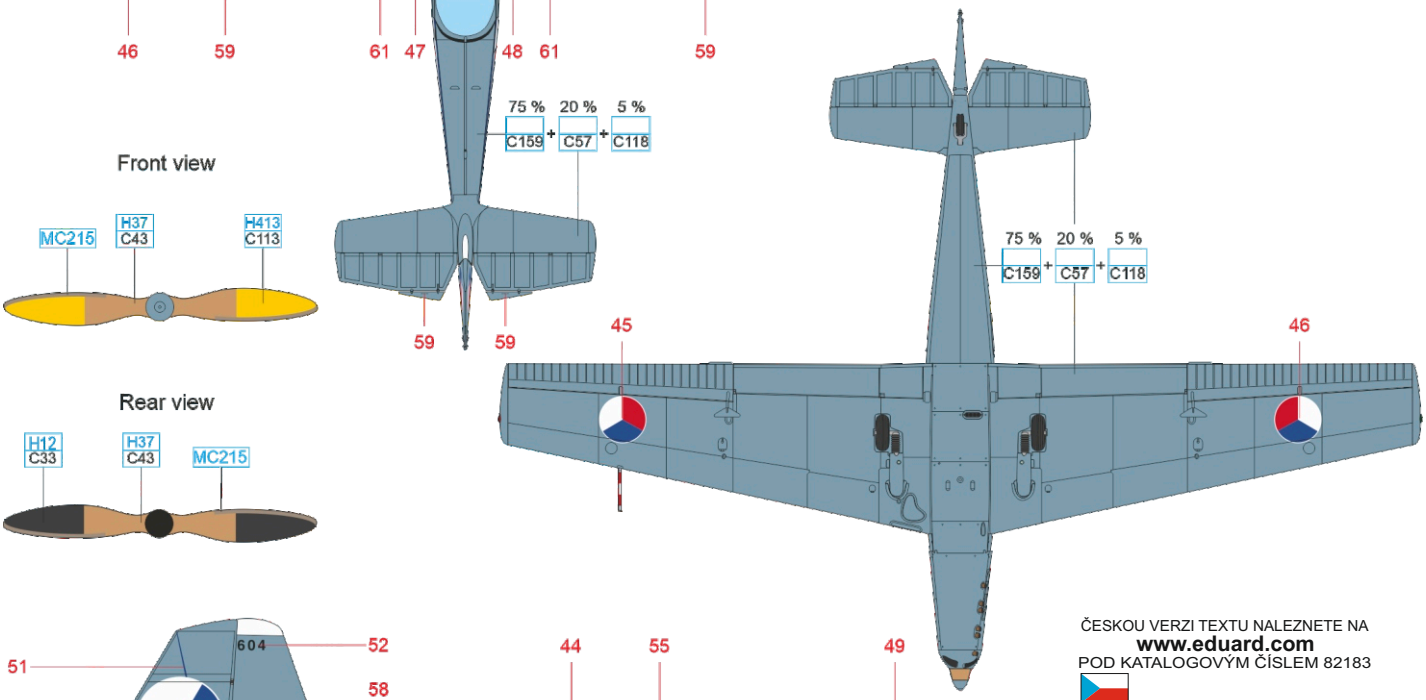
C C-305, No. 604, Czechoslovak People's Army, Czechoslovakia, 1965

Czechoslovak People's Army obtained ten Z-326 in military version C-305. These aircraft varied only slightly from the civilian ones, as they were equipped with small indication lights on the undercarriage leg covers and with the signal rockets dispenser under the belly with corresponding control panel in the cockpit. These served for basic pilot training in Military Aero Clubs, where young beginners were starting their career of military pilots prior to enlisting. Some aircraft were flying in simple silver livery, other obtained attractive three-tone coloring with metallic light blue-green as a basic one. This aircraft was handed over to civilian Aero Clubs representative (Svazarm organization) on May 8, 1968 and was assigned to Vrchlabí Aero Club consequently. Later it was transferred to Olomouc Aero Club and finally to nearby Prostějov Aero Club, where it is flying with OK-OTA registration today.









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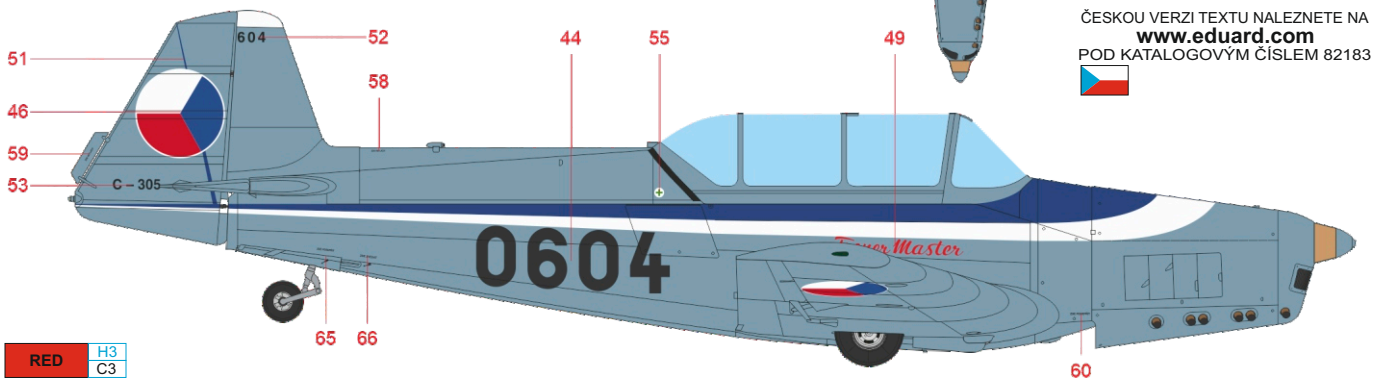
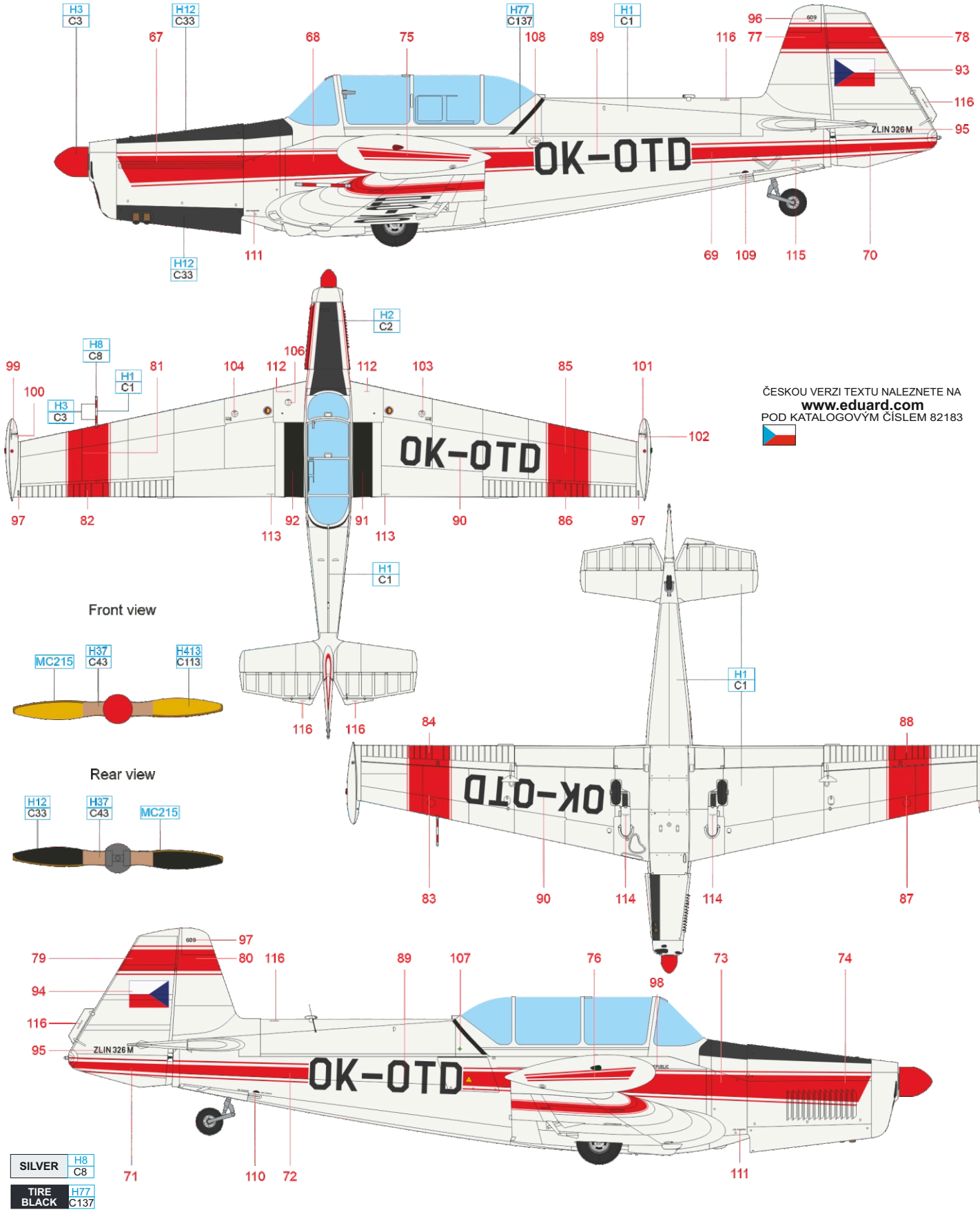


RED	H3 C3																		
WHITE	H1 C1	SKY BLUE	C34	BRIGHT BLUE	C65	BLACK	H12 C33	TIRE BLACK	H77 C137	SILVER	H8 C8								
SUPER SILVER	C159	METALLIC BLUE GREEN	C57	LIGHT BLUE	C118	INTERIOR GREEN	C391	WOOD BROWN	H37 C43	YELLOW	H413 C113	COPPER	MC215						

D Z-326M, No. 609, private owners, Slaný Airfield, Czech Republic, 2022

This is one of the still flying aircraft produced as C-305 for the Czechoslovak People's Army. It was handed over to the civilian Svazarm organization on May 26, 1972 and was given the OK-OTD registration. It served in the Aero Clubs of Točná, Kladno and briefly also Jičín, where it reached its time between overhauls and was grounded. During the process of the assets allocation of the then Aero Club of the Czecho-Slovak Federation Republic, this aircraft was assigned to the Aero Club Polička. There it underwent overhaul, making it airworthy again, and also the conversion to the Z-326M version. The Aero Club than used it primarily for towing of sailplanes. In 2006, however, it was sold to a private owner who operated it at the Líně airport. Subsequently, it was sold to a pair of private owners who keep flying this Trenér Master from Slaný airport.



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SILVER	H8 C8	TIRE BLACK	H77 C137	WHITE	H1 C1	RED	H3 C3	BLACK	H12 C33	WOOD BROWN	H37 C43	YELLOW	H413 C113	COPPER	MC215

E Z-326, No. 902, private owner, Großenhain, Germany, 2022

In 1963 the management of the Moravan Otrokovice company officially ended the production of the Z 26 series aircraft. So, this Z-326 serial number 902 was manufactured as the "last" of all Trenérs and was factory stored until 1965. However, the customer demand was strong, so after two years, serial production was running again. In June 1965, the No. 902 aircraft left Czechoslovakia for France with registration F-BMQX. One of its first bases was Villefranche Airport. After completing its flight school career, it was stored and later sold to Switzerland. Since 1992 it was in the possession of Groupement Avion Historique in Lausanne. At that time, but also shortly after being sold to Germany, it bore the registration HB-TCB. In this form, it also briefly appeared during maintenance in the Czech Republic. It was registered as D-ERIO after 2015 and remains privately held.

F Z-326, No. 894, Escadrille Orion, Marmande Virazeil, France 2013

After manufactured in 1963, this Z-326 was factory stored until June 25, 1965, when it was handed over to a French customer. It served in the flying school in Challes and later was in the inventory of Association Pour La Sauvegarde Des Avions Anciens. It is a part of another group of enthusiasts today, Escadrille Orion, based at the Marmande Virazeil airfield.