

SWEDISH FIGHTER 1:48 SCALE PLASTIC KIT



intro

There are not too many countries with the ability to develop a supersonic fighter. Sweden has belonged to this elite group from the very start of the supersonic era thanks to the Saab (Svenska Aeroplan AB) company, founded in 1937. By the dawn of the jet era, Saab only developed three production piston engine aircraft. These were the reconnaissance/light bomber B 17, the medium twin engine bomber B 18 and the J 21 fighter, which was later developed into the first Swedish jet, the Saab J 21R. But the plane with a real impact on the jet era was the J 29 Tunnan, the first production western jet with a swept wing. This was achieved thanks in part to access to German wartime aerodynamic research data. The Saab J29 Tunnan made its maiden flight in September, 1948 and was produced in fighter and fighter bomber versions. A demand for more effective and more powerful air-to-ground abilities, as well as the need for an all weather interceptor, led to the development of the Saab 32 Lansen. The Lansen was the first Swedish aircraft capable of reaching sonic speeds, although it was only a transonic, not a supersonic, aircraft. The supersonic era was entered with its successor, the J 35 Draken.

When defining their first supersonic aircraft requirement, the Swedish Air Force did not leave out the doctrine of the versatility of multiple take-off and landing areas using parts of highways and other suitable roads and strips. Also required was ease of maintenance, and a refuelling and re-arming turnaround time of ten minutes in the field. This, in itself, places high demands on designers, who, led by Erik Bratt, decided to use a delta wing concept. Some of the drawbacks of this configuration were solved with an innovative 'double delta' wing with different angles along the leading edge: the inner section with 80° sweep and outer section with 57° sweep. The inner section is an integral part of fuselage and, alongside the air intakes, it houses many of the aircraft devices.

The double delta wing was a very revolutionary concept, so it was decided a scaled down test model, the Saab 210 „Lilldraken (Small Dragon), should be built. Only after more than 1000 flying hours of testing, when aerodynamic calculations were confirmed, were the first three Draken prototypes ordered. The first one made its maiden flight on October 25th, 1955, powered by an engine without afterburner. Then second prototype followed and thanks to the installation of an afterburner, it broke the sound barrier for the first time.

The first pre-production plane made its maiden flight on February 15th, 1958. It began a production run of ninety J 35A (Adam) aircraft. These Drakens were powered by a Rolls-Royce Avon 200 with 67 kN of thrust and armed with two 30 mm ADEN M-55 cannons with 150 rounds per gun. Also, up to four Rb-24 (AIM-9 Sidewinder) missiles could be carried. The first J 35A entered service during 1960.

The last 25 'Adams' manufactured had a lengthened rear part of the fuselage due to a change in the afterburner chamber from the Type 65 to the Type 66. They were also equipped with a retractable double tail wheel to allow pilots to perform short take-offs with a nose high attitude without running the risk of damage to the rear part of the fuselage caused by contact with the runway surface. Both mentioned upgrades became standard on the J 35B (Bertil) version with 89 aircraft produced. The 'Bertil' solved a great disadvantage of the preceding 'Adam', as the latter was only a day/good weather interceptor capable of only rear hemisphere attacks. New for the J 35B was the S-7 fire control system and the domestic PS-03/radar, allowing head on attacks as well. The combat value of the Draken was raised by the possibility of carrying a wider variation of ordnance, including air-to-ground unguided Bofors 135mm rockets, unguided air-to-air 75mm rockets and also a variety of bombs of up to 500kg.

The development of the Draken proceeded through to the two seater J 35C to the more powerful J 35D (David). More power came from the RM-6C engine with a maximum thrust of 76,81 kN. As the engine needed more air, the intakes were changed. More fuel was also required, so the internal tanks were enlarged by 600 l. The firing system was upgraded to the S-7A type. The prototype of the J 35D took off for the first time on December 27th, 1960 and 91 'Davids' were manufactured. The J 35D was the first Draken capable of reaching speeds over Mach 2, while its predecessors only managed Mach 1.8. From the J 35B, a reconnaissance version designated S 35E (Erik) was developed. Instead of radar, OMER A SKa-16B and KSa-24 cameras were installed in the nose. This Draken also sported a new, one piece canopy.

The ultimate version of the Draken was the J 35F (Filip), powered by an RM6C engine with 78,48 kN of thrust. The 'Filip' got a more convex, one piece canopy than the S 35E and upgraded firing system capable of firing radar-guided Rb-27 missiles (Hughes GAR-3A Falcons) on fuselage pods and infra-red guided Rb-28 (Hughes GAR-4 Falcon) missiles. The firing system was supplemented by an S71N IR sensor. As the take-off weight rose with the 'Filip' version, the left cannon was deleted. The J 35F was the most numerous of all versions, with 208 being built, first appearing with units during 1965.

The J 35F Draken became the base for further development of avionics equipment, which led to the modification of 66 aircraft to the J 35J (Jens) standard. They were introduced at the time when the Swedish Air Force was completing the transition to the J 37 Viggen as a stop-gap solution until the new JAS-39 Gripen became available. The only user of the 'Jen' was F-10 Wing from Ängelholm flying the type until December 1998.

Denmark

With the Draken the Swedish aerospace industry recorded some export success. The first buyer was Denmark, ordering 46 J 35XD (Export Denmark) Drakens in 1968. These aircraft had 40 % more fuel capacity, strengthened body and modified outer part of the wing. Danish Drakens were also capable of carrying guided AGM-12 Bullpup air-to-ground missiles. The Danish Air Force flew them until 1993.

Finland

Another user of the Draken was Finland, ordering twelve J 35XS (Export Suomi) aircraft. These were supplied in parts and assembled by the Finnish Valmet company in 1974 and 1975. The J 35XS was similar to the J 35F, but had both cannons. Some changes to the avionics and the deletion of the Falcon missile guidance system were also differences in this version. Finland later (1976) bought six used J 35FS plus three J 35CS and 18 more in 1984. All together Finland used 48 Drakens, flying them until 2000.

Austria

The Austrians bought their Drakens in 1985. They were originally J 35Ds upgraded by Saab to J 35OE standard. Modifications were made to the navigation systems and avionics, and the aircraft also sported the canopy from the J 35F. Originally, the J 35OE was armed only with cannon, as an agreement of the Allied powers from 1955 forbade Austria from operating any military missiles. This agreement was passed over with silence after some incidents during the war in the former Yugoslavia and Austrian Drakens got the go ahead to carry AIM-9 missiles. The J 35OEs were used until 2005, becoming the last of Drakens in active service.

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 lepidla 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. SYMBOLY

* INSTRUKTION SINNBILDEN

* SYMBOLES

* 記号の説明

OPTIONAL
VOLBABEND
OHNOUTOPEN HOLE
VYVRTAT OTVORSYMMETRICAL ASSEMBLY
SYMETRICKÁ MONTÁŽREMOVE
ODŘÍZNOUTREVERSE SIDE
OTOČITAPPLY EDUARD MASK
AND PAINT
POUŽÍT EDUARD MASK
NABARVIT

PARTS



DÍLY



TEILE

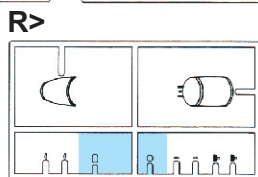
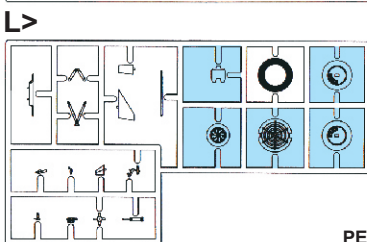
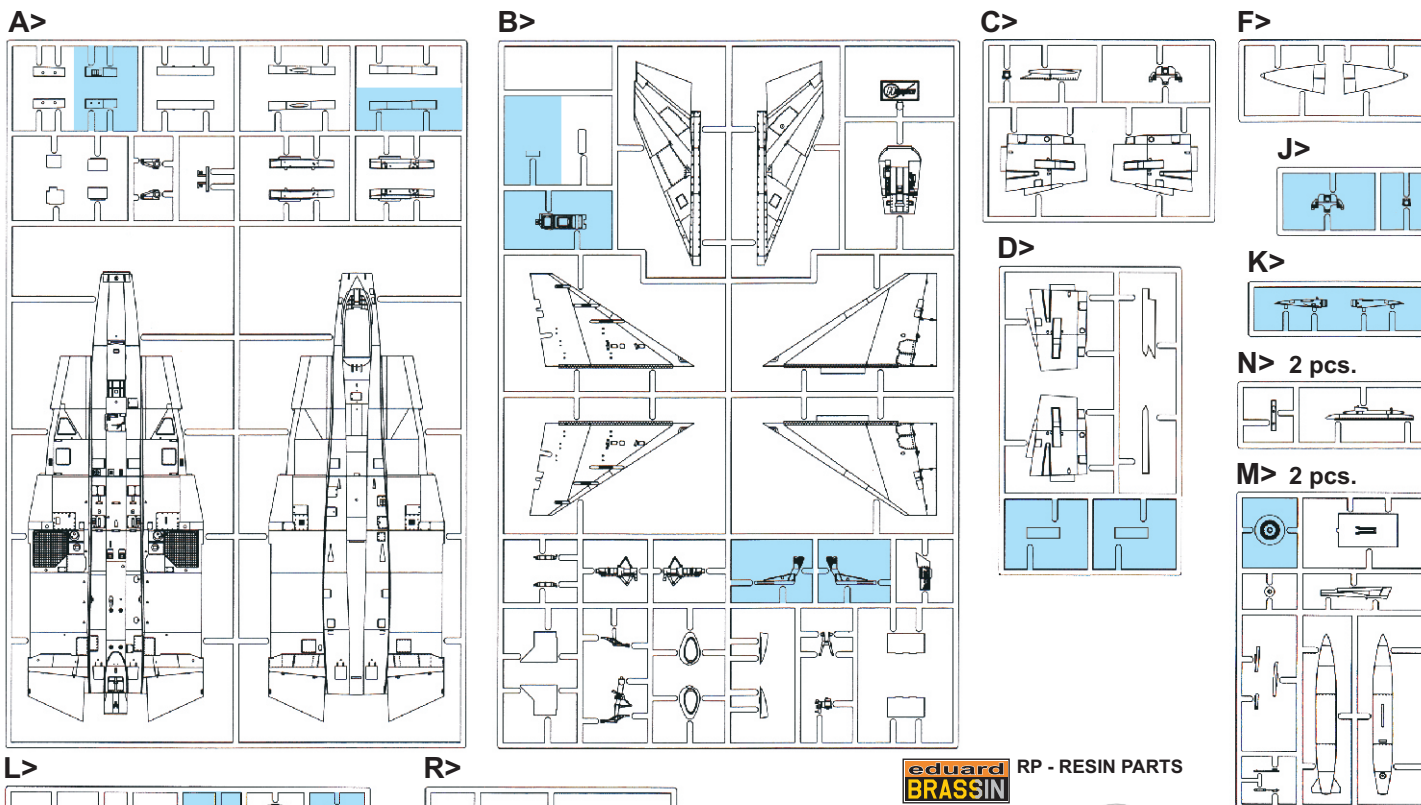


PIĘCES

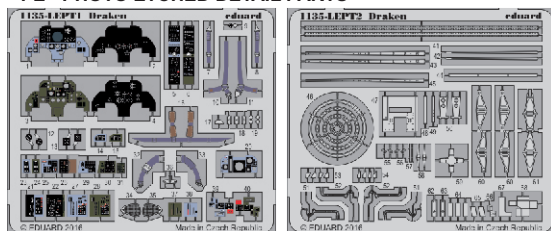


部品

PLASTIC PARTS

eduard
BRASSIN RP - RESIN PARTS

PE - PHOTO ETCHED DETAIL PARTS



COLOURS



BARVY



FARBEN



PEINTURE



色

GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H 3	C3	RED
H 8	C8	SILVER
H 12	C33	FLAT BLACK
H 28	C78	METAL BLACK
H 35	C80	COBALT BLUE
H 61	C11	LIGHT GULL GRAY
H 76	C61	BURNT IRON
H 77	C137	TIRE BLACK
H 81	C55	KHAKI
H 82	C31	DARK GRAY
H 90	C47	CLEAR RED

AQUEOUS		Mr.COLOR	
H 94	C138	CLEAR GREEN	
H 304	C304	OLIVE DRAB	
H 307	C307	GRAY	
H 330	C330	DARK GREEN	
H 331	C331	DARK SEAGRAY	
H 338	C338	LIGHT GRAY	
H 339	C339	ENGINE GRAY	
H 413	C113	YELLOW	
Mr.COLOR SUPER METALLIC			
SM01		SUPER FINE SILVER	
SM03		SUPER IRON	
SM06		CHROME SILVER	

INTERIOR COLOR

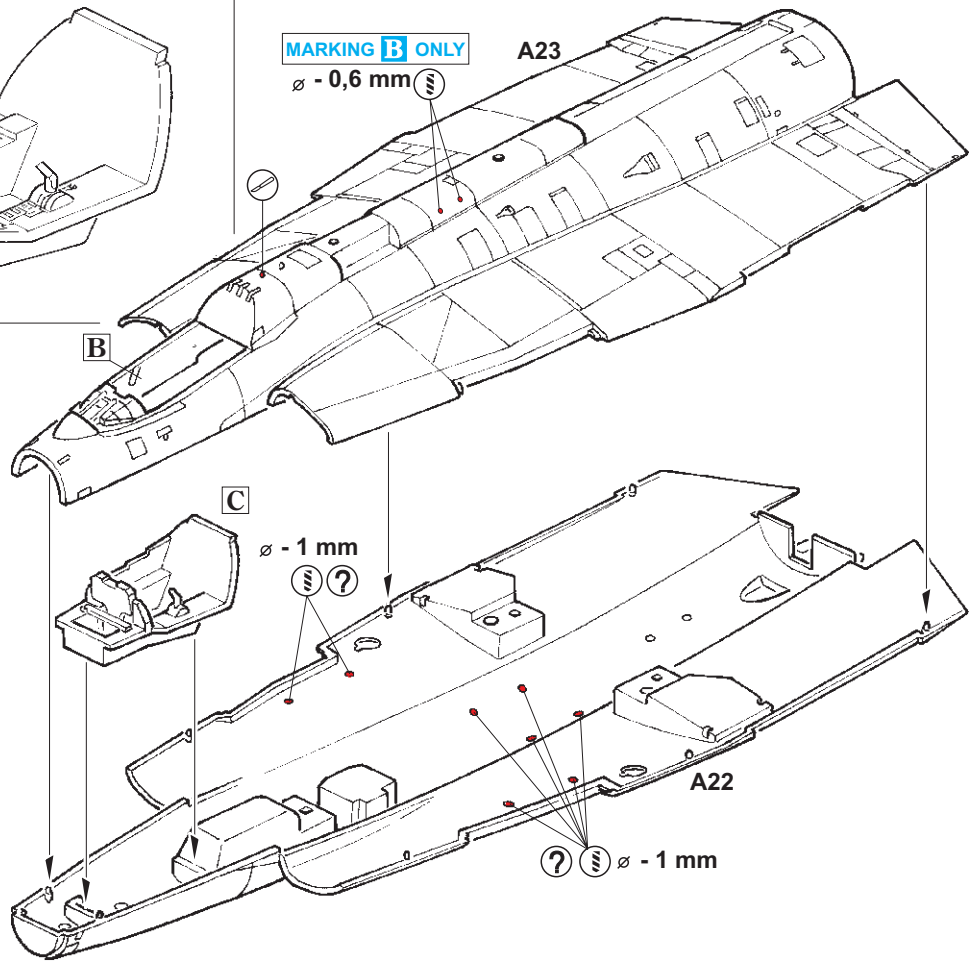
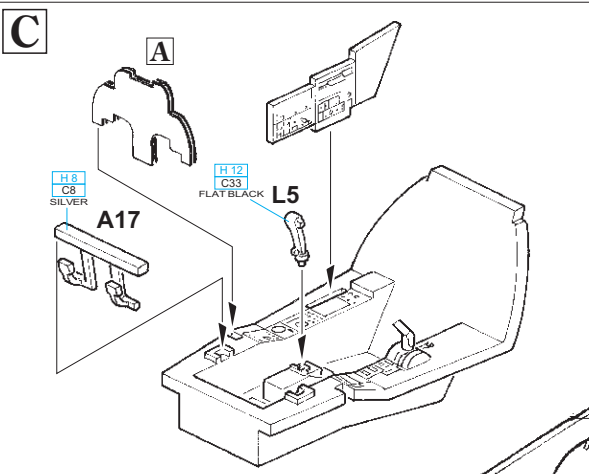
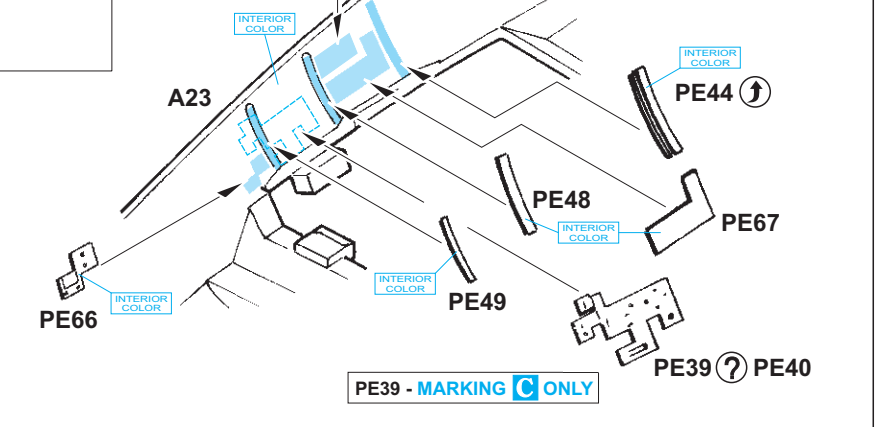
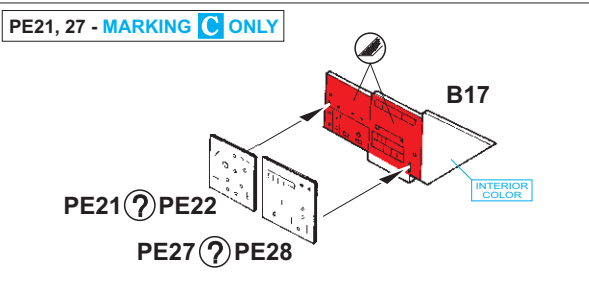
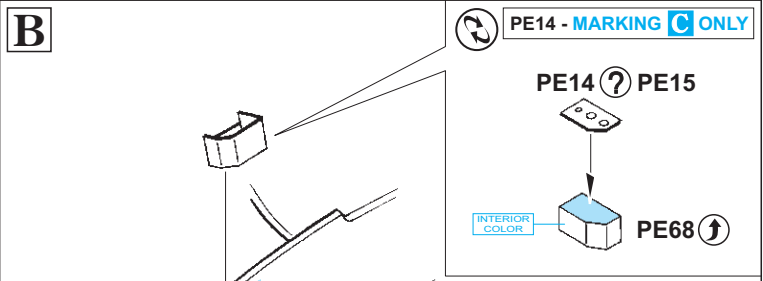
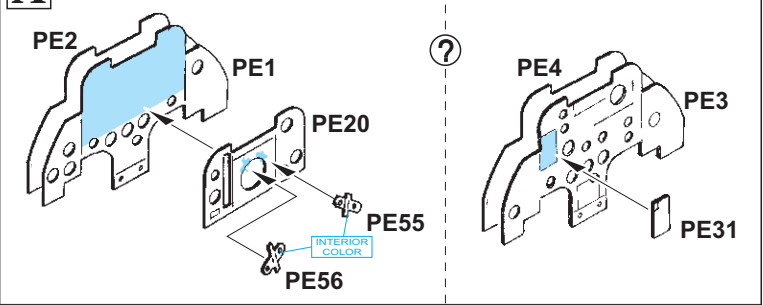
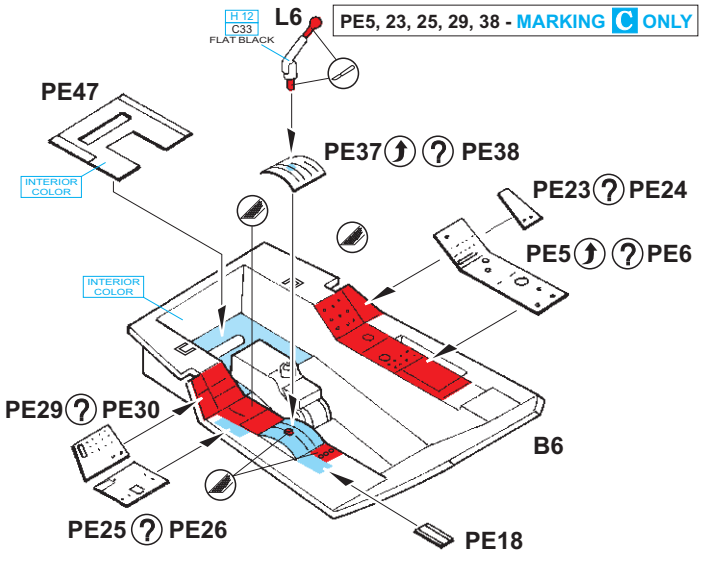
H 309
C309
GREEN
H 338
C338
LIGHT GRAY

MARKINGS A, B, D

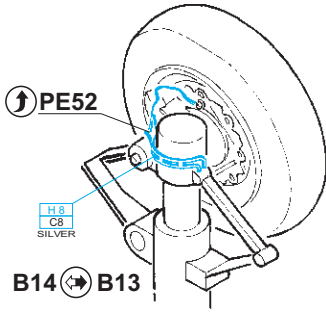
MARKING C

A MARKING C

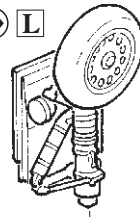
MARKINGS A, B, D



RP2, RP5 ↔ RP2, RP6



R ↔ L



L13 ?

PE64 PE64 - MARKING D ONLY

M10 ↔ M11

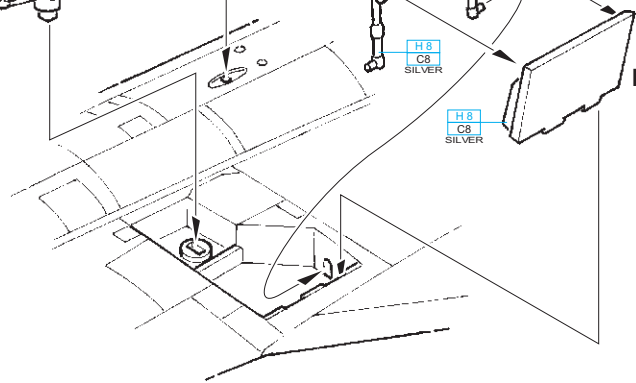
M11 ↔ M10

H 8 C8 SILVER

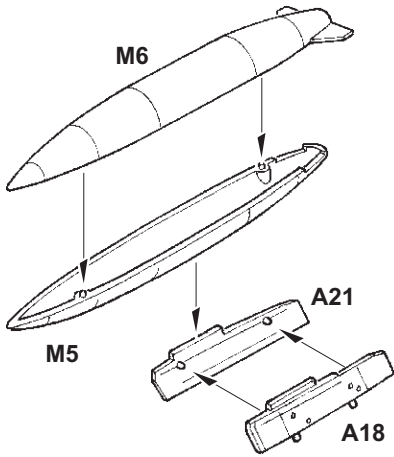
H 8 C8 SILVER

H 8 C8 SILVER

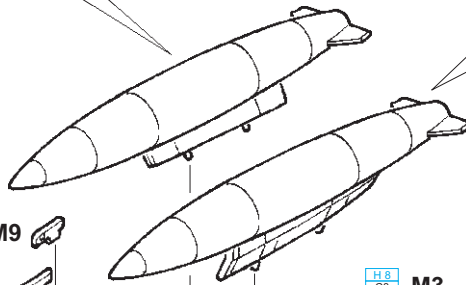
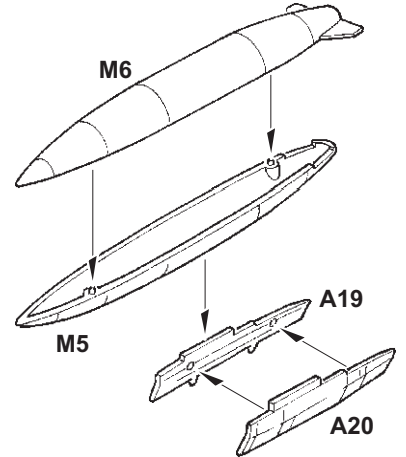
B28 ↔ B29



M6



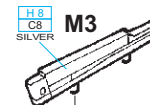
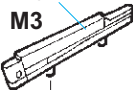
M6



M9

M8

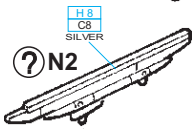
M7

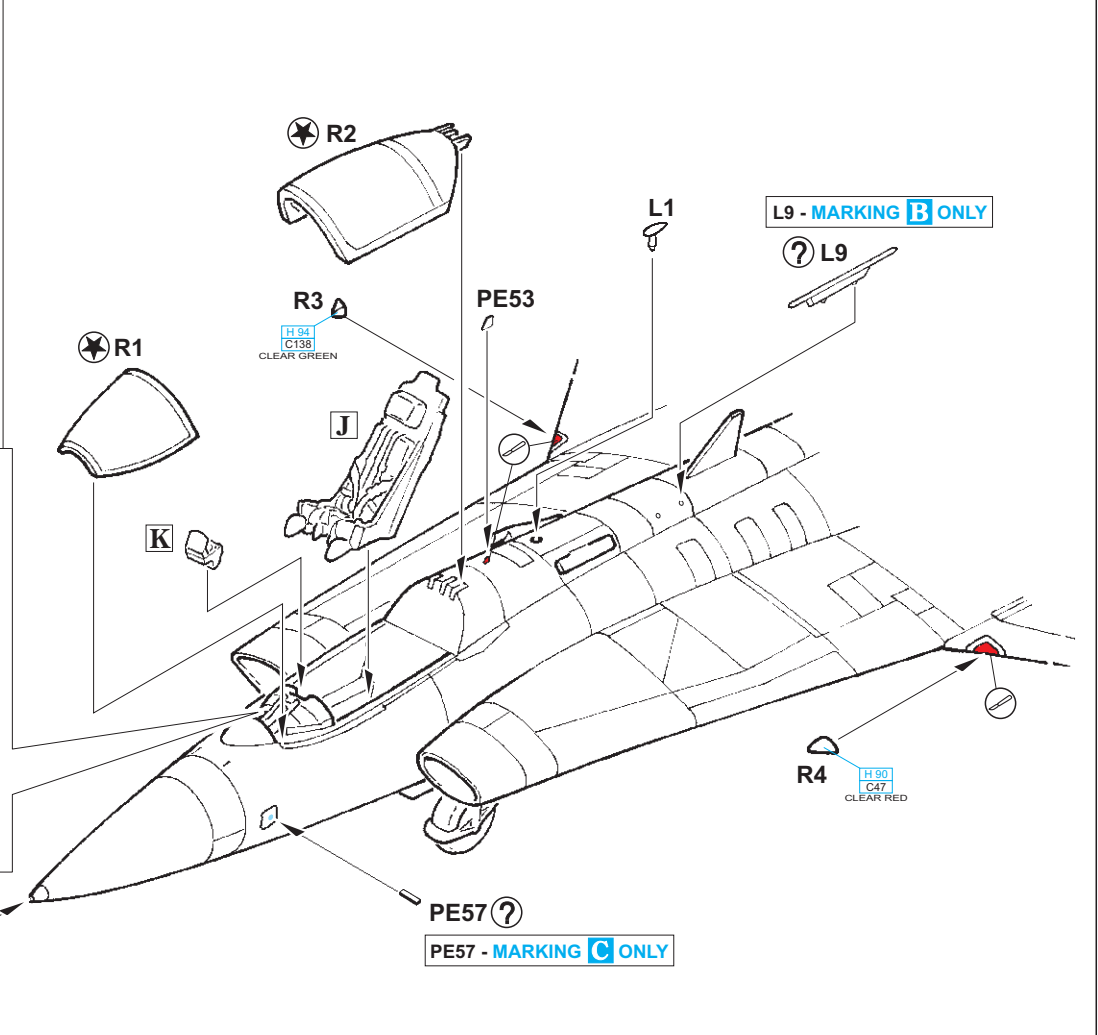
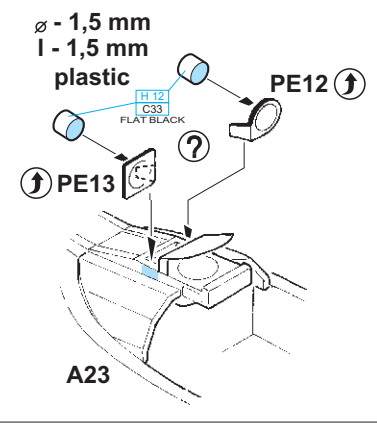
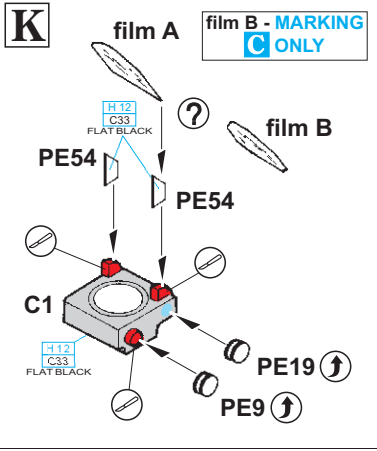
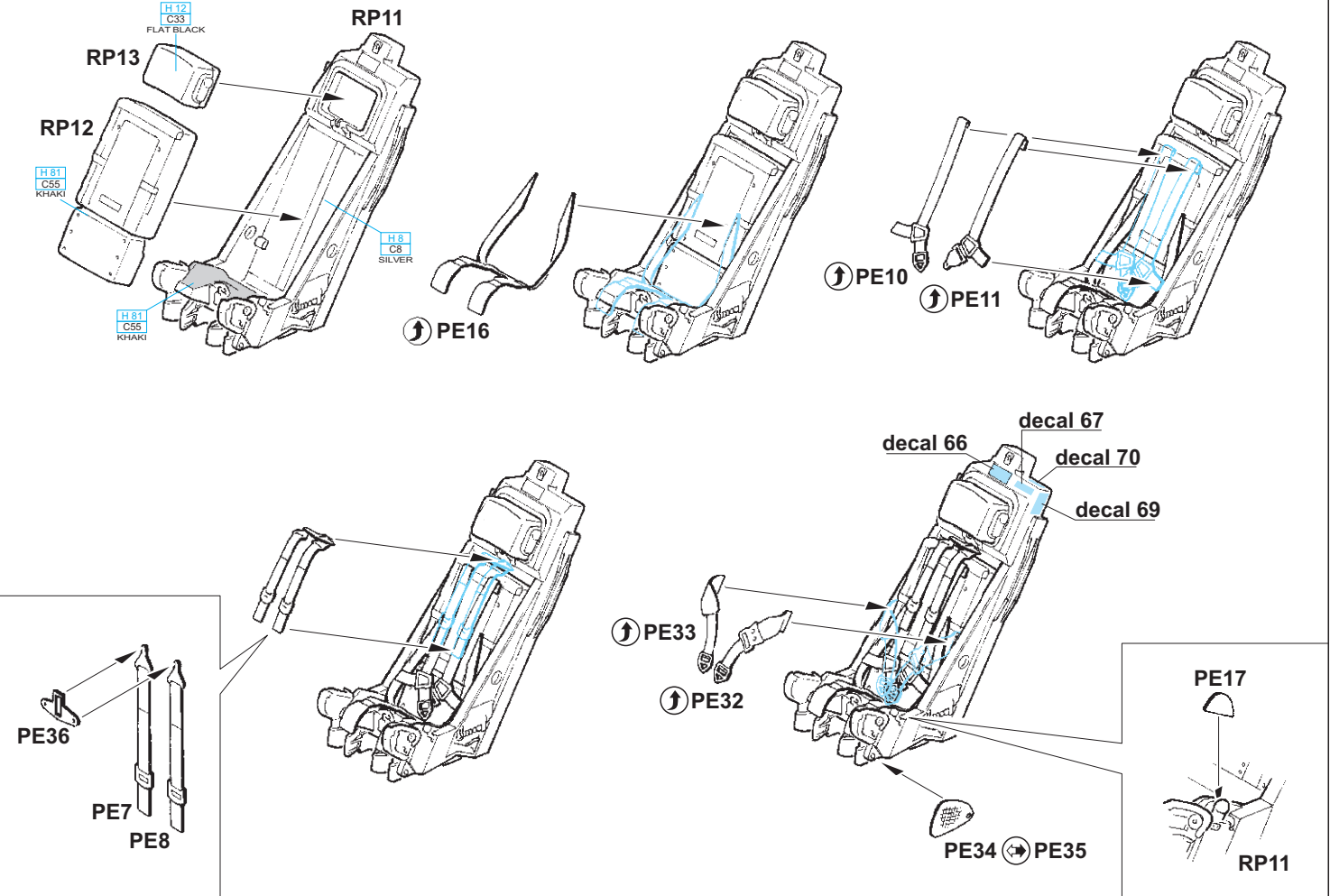


M7

M8

M9





RP2, RP5 ↔ RP2, RP6



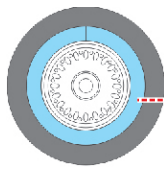
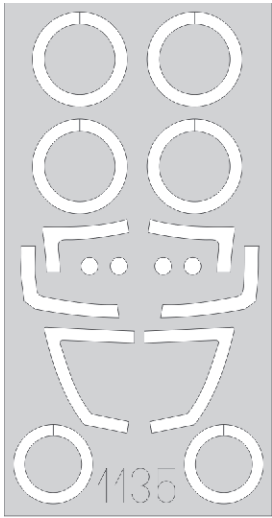
RP8, RP9 ↔ RP8, RP10

1.)

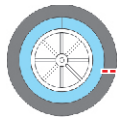
RP2, RP5 ↔ RP2, RP6



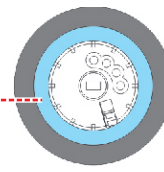
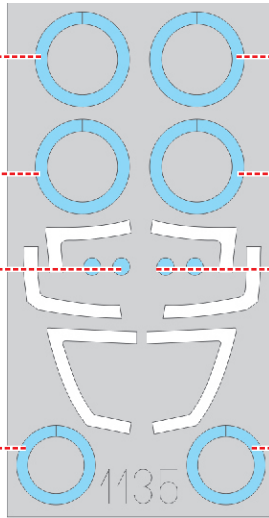
RP8, RP9 ↔ RP8, RP10



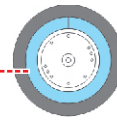
M4
2 pcs.



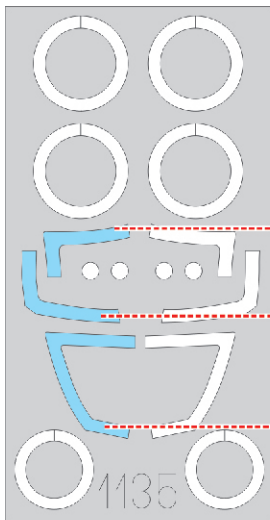
RP1 ? RP7



M4
2 pcs.

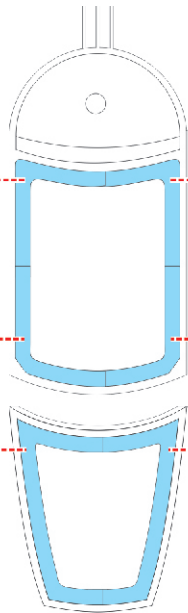


RP1 ? RP7

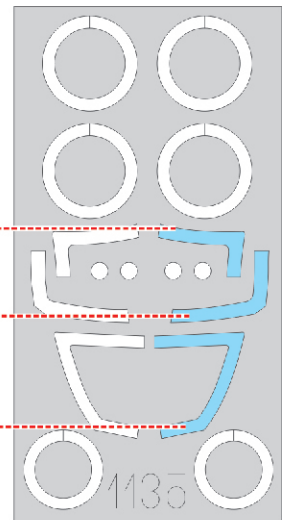


R2

2.)

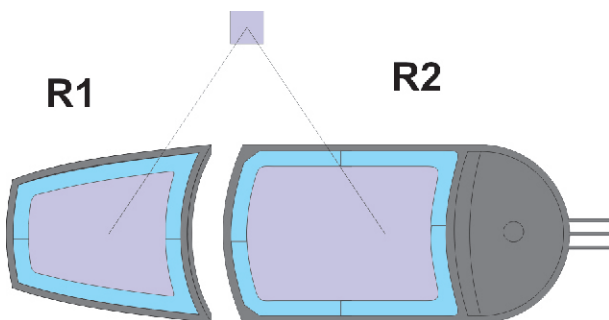


R1

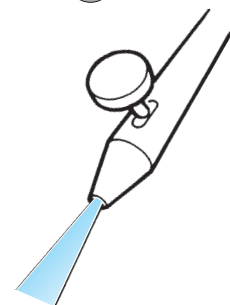


3.)

LIQUID MASK

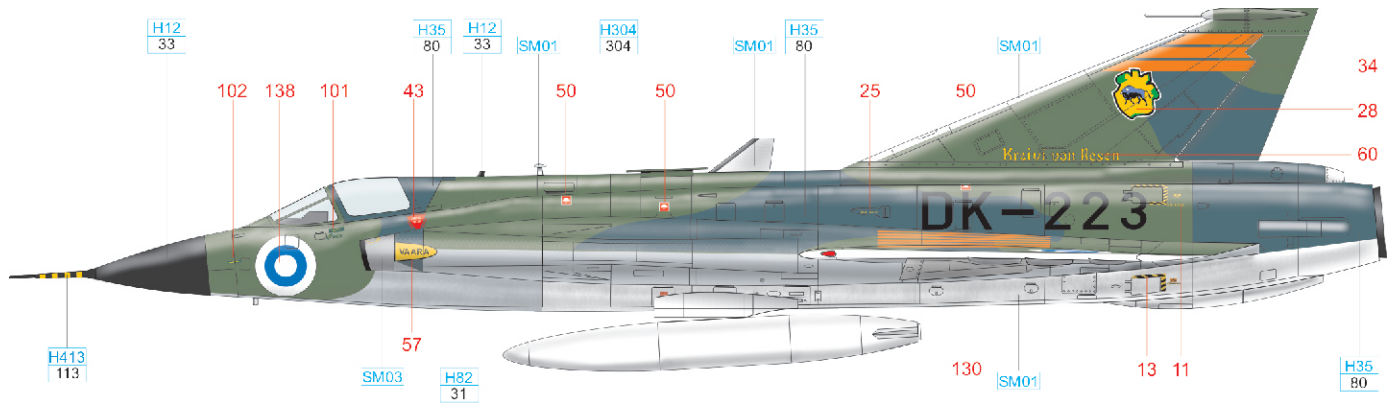


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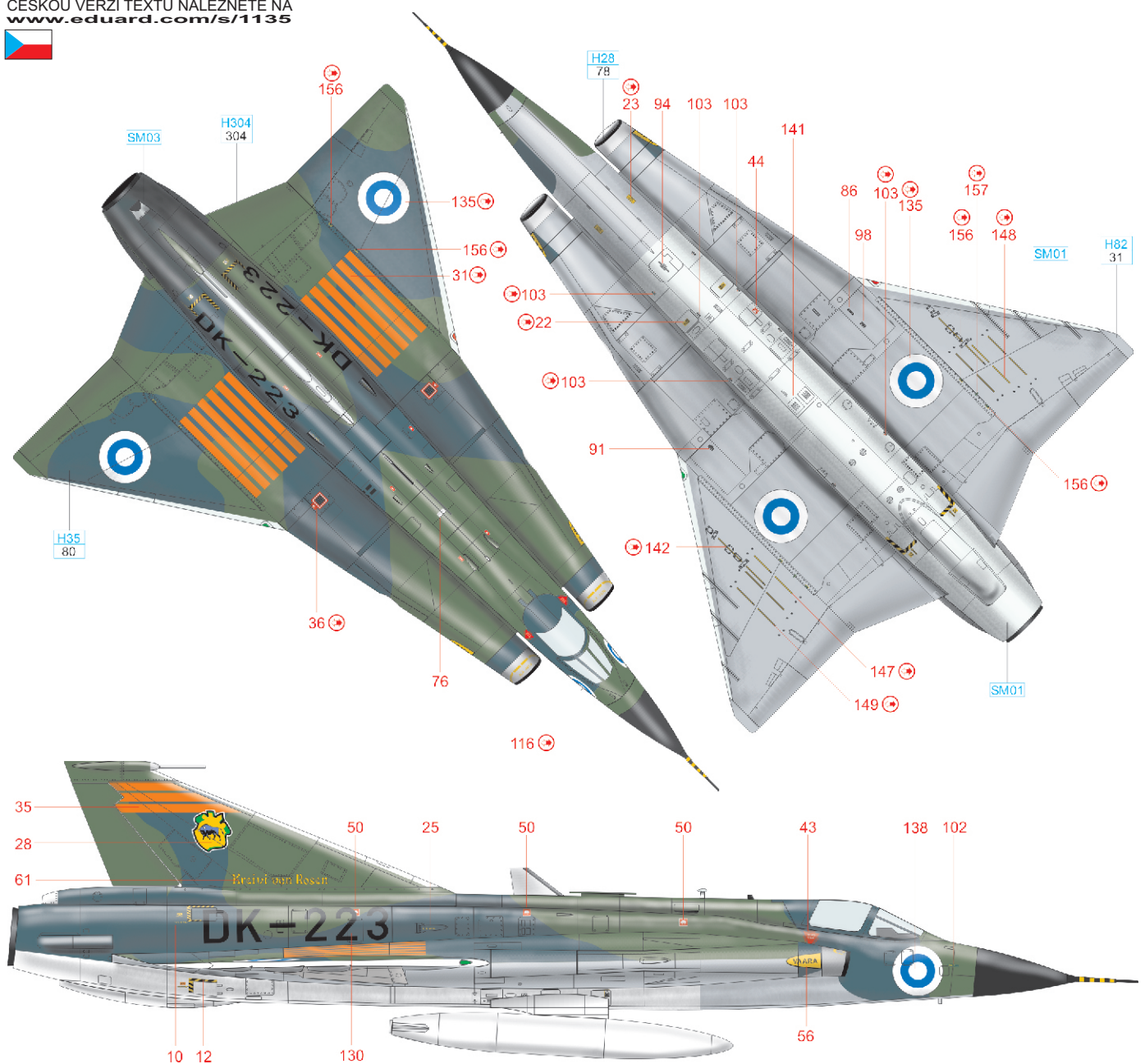


B J 35FS, 351312, Hävittäjälentolaivue 11, 'Kreivi Von Rosen', Rovaniemi, Finland, 1985

This aircraft was the last Draken built. It bore the name of Count Eric Von Rosen, who donated the very first aircraft to the newly formed Finnish Air Force (Ilmavoimat) after the country gained its independence from imperial Russia in 1918. The aircraft sported the Count's personal symbol, a blue swastika on a white background, which was subsequently adopted as the national insignia of the Ilmavoimat. The name of the Count was rendered on three aircraft types: first was a Folland Gnat, then this particular Draken and later on, an F-18. The plane is in the standard camouflage scheme with the inscription and unit marking, the European Bison on a yellow background. Today the aircraft is on display at the Suomen Ilmavoimamuseo in Tikkakoski.



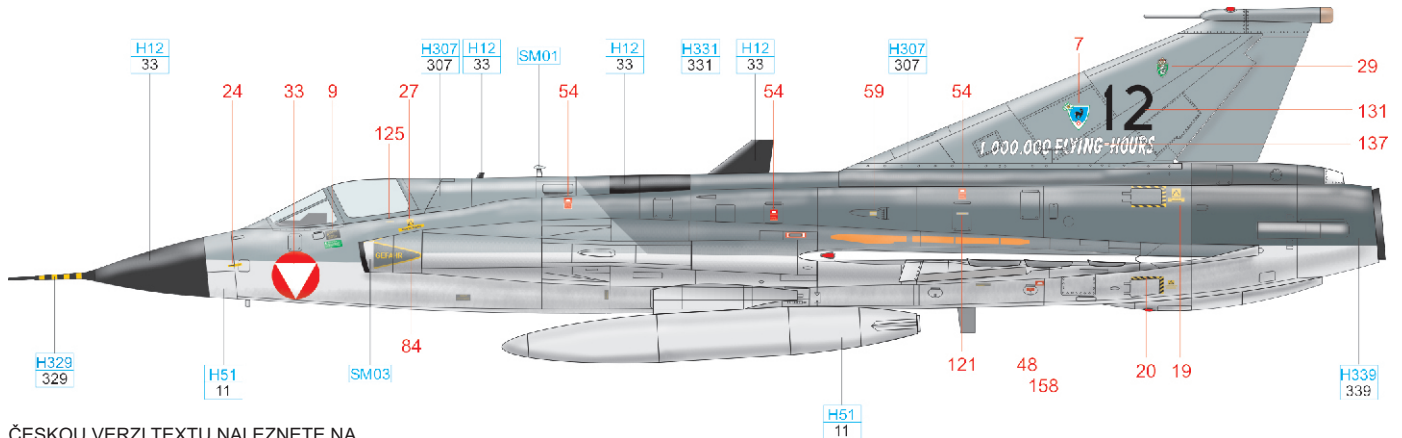
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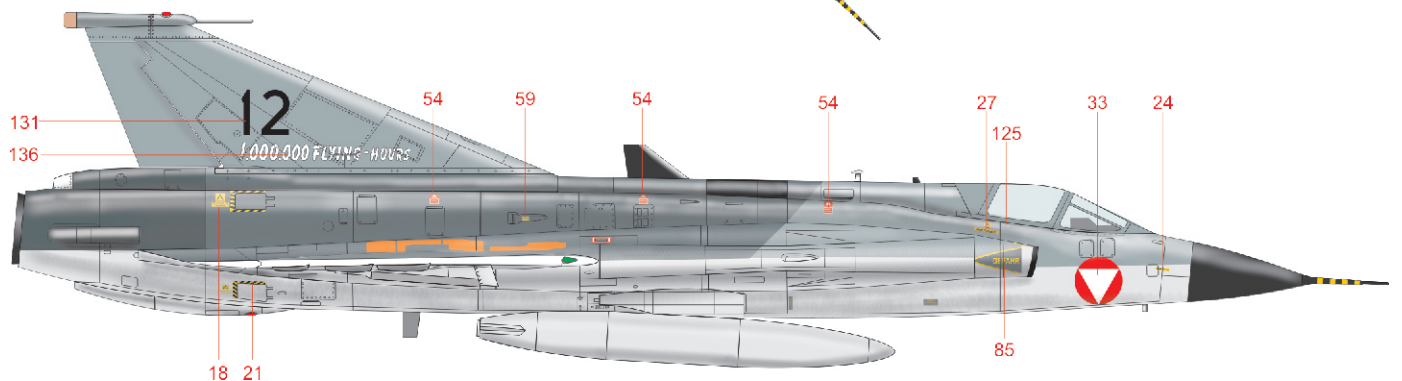
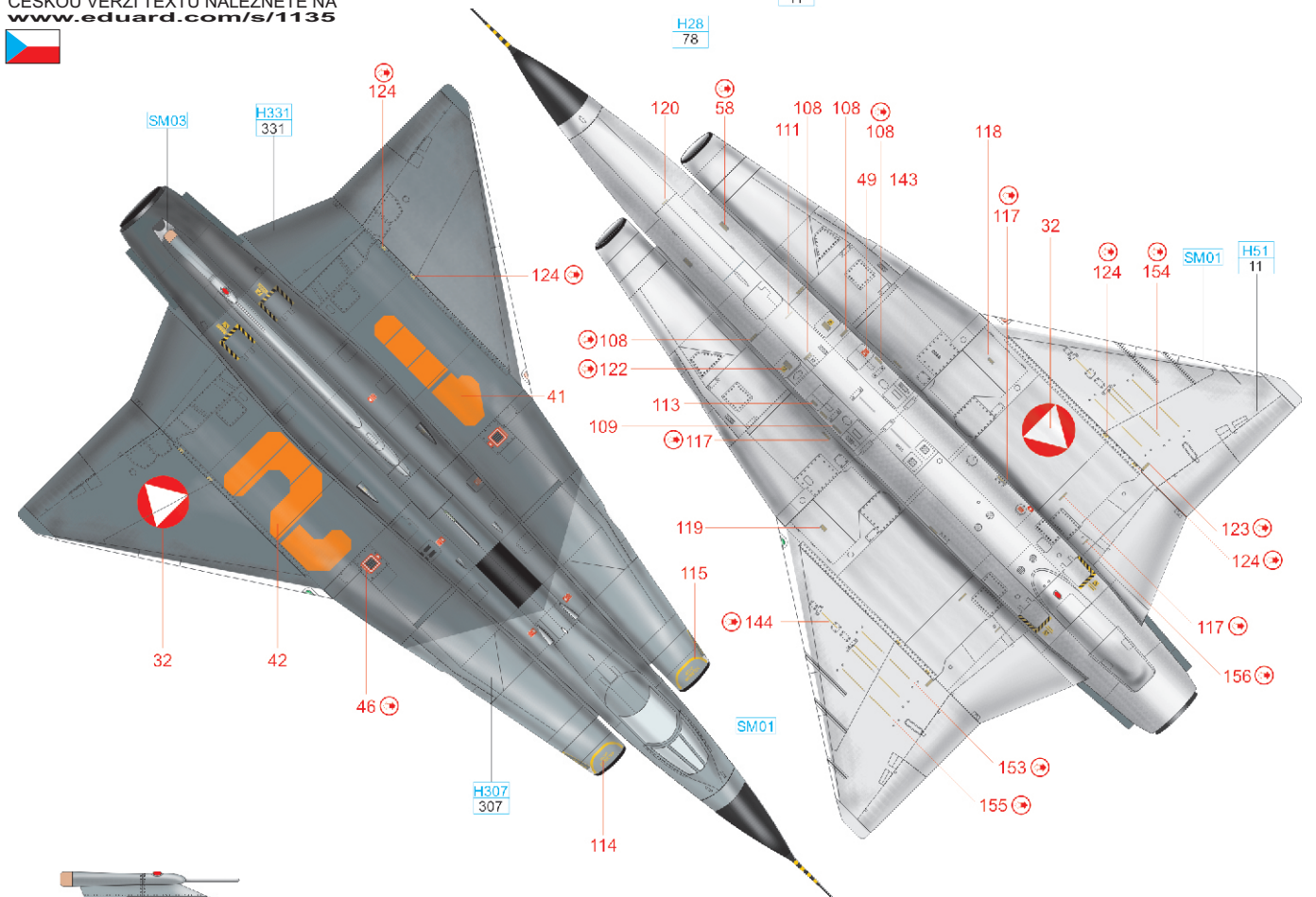
YELLOW	H413 113	BLACK	H12 33	METAL BLACK	H28 78	SUPER IRON	SM03
DARK BLUE	H35 80	OLIVE DRAB	H304 304	GRAY	H82 31	ALUMINIUM	SM01

C J 35ÖE Mk.II, 351401, Fliegerregiment 2, 1. Staffel, Zeltweg, Austria, 2003

The inscription on the vertical stabilizer commemorates a million flying hours collectively by all Drakens in service with all four countries using the J 35. Austria was the last of the users to purchase Drakens and flew them until 2005. They sported a three tone colour scheme consisting of dark and light grey on the upper surfaces with blue-grey undersides. The tactical number '12' is painted on the upper surfaces in bright orange. The national insignia is on the right upper wing and left lower wing.



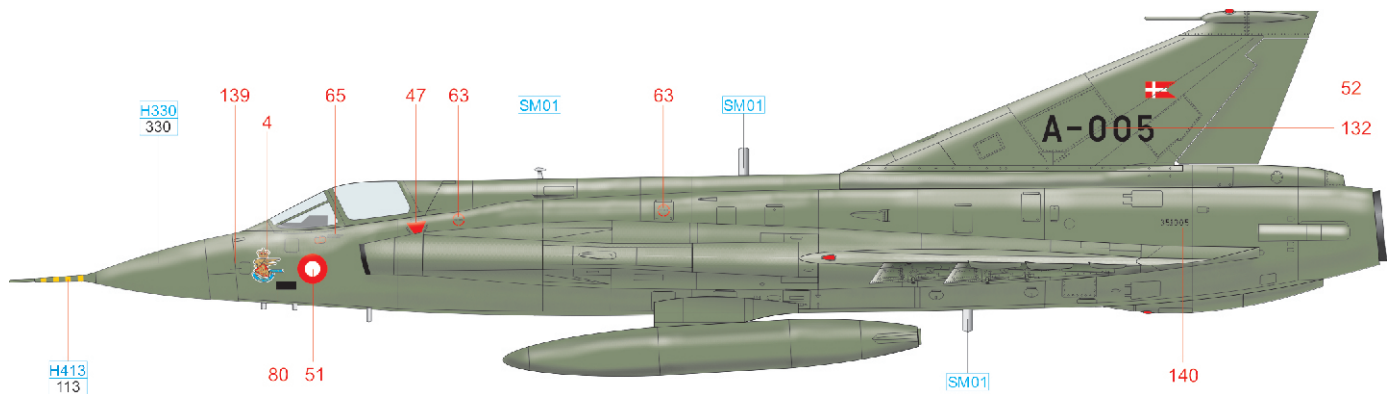
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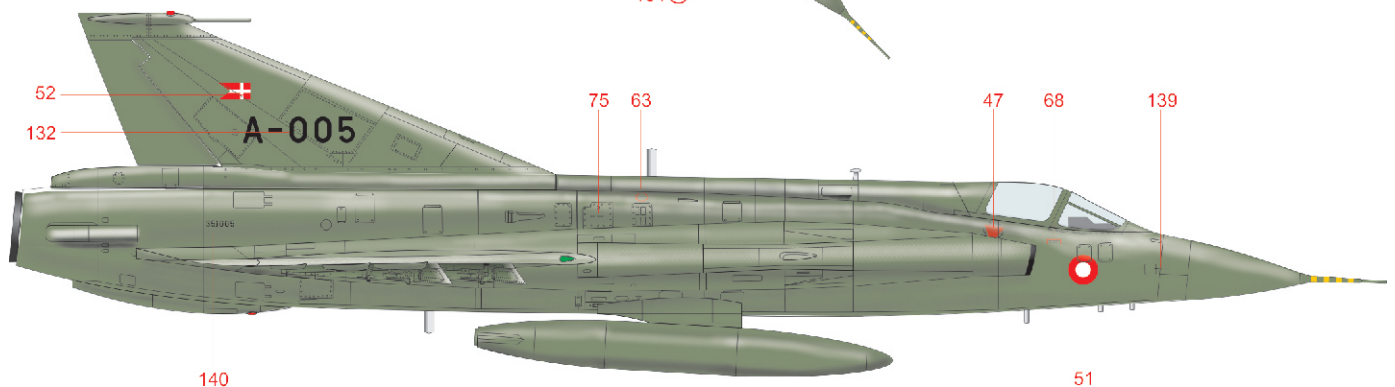
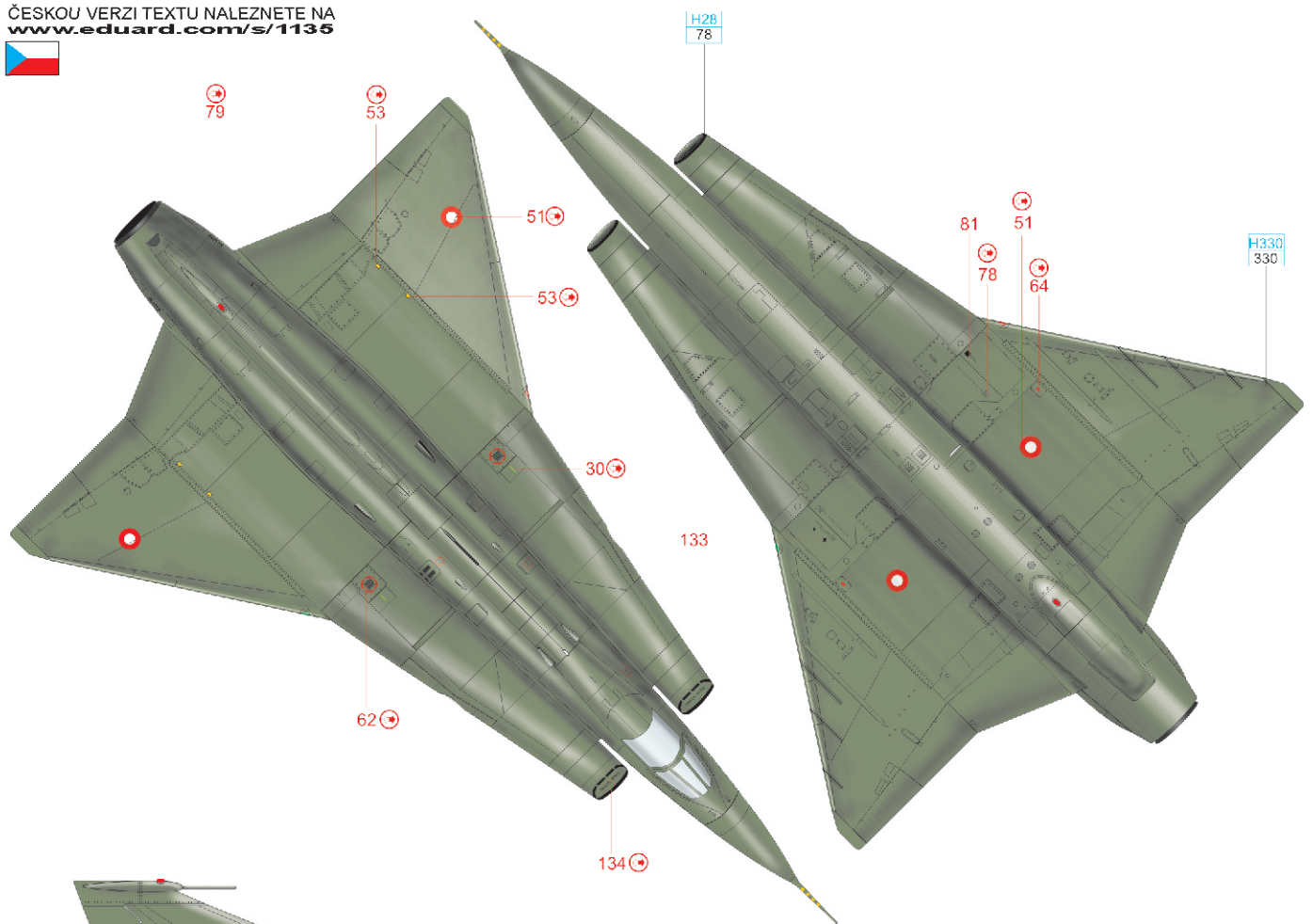
YELLOW	H413 113	BLACK	H12 33	DARK GRAY	H339 339	METAL BLACK	H28 78	SUPER IRON	SM03
DARK GRAY	H331 331	GRAY	H307 307	GRAY	H51 11	ALUMINIUM	SM01		

D J 35 XD, ESK 725, Karup Air Base, Denmark, early 70ties

Danish Drakens served in period from 1970 to 1993. They sported all green painting scheme of specific Danish colour, different to Swedish Mörkt Olivgrön. A new paint of glossy colour (the same hue) was later applied as the original painting weathered heavily. Notable is lack of most of the stencils and warning symbols visible on the aircraft of other users. Drakens were flown by two squadrons – ESK 725 and ESK 729 – and replaced F-100Ds Super Sabre in the case ESK 725 and RF-84Fs Thunderflash in the case ESK 729.



ČESKOU VERZI TEXTU NALEZNETE NA
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DARK GREEN H330 330 METAL BLACK H28 78 YELLOW H413 113 ALUMINIUM SM01