

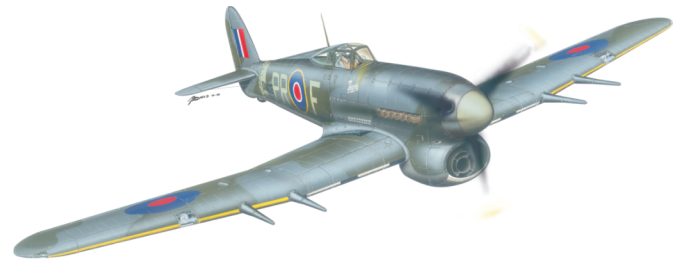
Tiffy

eduard

BRITISH WWII FIGHTER

1/48 SCALE PLASTIC KIT

#1131



INTRO

Hawker Typhoon Mk. IB 'Car Door' Version

What started as an attempt to install some fear into German pilots ended as a fearsome fighter-bomber. Some are even pointing out that the Hawker Typhoon was one of the worst British fighters of World War II but one of the best ground attack aircraft of the period... The journey from ace maker to the glory of a 'can opener' started just about the time the Hurricane was entering service with the RAF in December 1937. The Hurricane's successor was already on the drawing board, thanks to Specification F.18/37, which called for a large, single seat high performance fighter. In January 1938 Hawker Aircraft received further details, requiring performance of at least 20 % better than that of the Hurricane. In March 1938 it was specified that the new fighter must achieve a maximum speed of at least 400 mph (644 km/h) at an altitude of 20,000 ft (6096 m). As the new fighter was intended to be a heavily armed interceptor to eliminate long range heavy escort fighters, the specification demanded armament of twelve 0.303 in (7.7 mm) Browning machine guns, or, preferably, four 20 mm Hispano cannon as soon as they were available. And so, the design team led by Sydney Camm began to ply their craft...

Tornado and Typhoon

Satisfaction of the requirements meant a strong and heavy aircraft, and thus the need for a very powerful engine. Two new 2000 hp 24-cylinder powerplants, both still in development, were selected. The Rolls & Royce Vulture engine with a V layout, and the Napier Sabre with a less orthodox X layout of the cylinders, were to supply the needed power. It was decided prototypes with both of them would be built, the Type N (for Napier) and the Type R (Rolls & Royce). The latter flew first as the Vulture engine was of a more conventional design than the Sabre and hence was the first of them available. The maiden flight of the Type R took place in October 1939 and the prototype was named the Tornado. Shortly after the first successful flights, Hawker obtained a production order for 1,000 examples at the beginning of November, but it all went south as flight testing ran into troubles and the project was stopped after three prototypes and just one production version being built. Meanwhile, the first Napier Sabre engine had been delivered to Hawker Aircraft and the first prototype of the Type N, called Typhoon, got airborne for the first time on the 24th of February, 1940. As with the Tornado, the first flights indicated a promising fighter. But the long Sabre engine had to be positioned very close to the leading edge of the wing and, due to its severe vibration, caused the stressed skin to tear away from the rivets during initial test flights. Another problem was structural stiffness of the tail assembly, as it had a tendency to collapse at higher speeds. Despite these problems, as well as poisonous carbon monoxide exhausts entering the cockpit, a production order for the first variant, the Typhoon Mk.IA, was placed.

From Fighter to Mud Mover

The first production Typhoon Mk.IA (R7082) flew for the first time on May 26th, 1941. Armed with twelve Brownings, it mostly served as a platform for operational tactic development. But the cannon-armed Typhoon Mk.IB followed closely, as the Air Ministry demanded early operational status to counter the new Fw 190. So, No.56 and No.609 Squadrons based at Duxford began to receive their Typhoons in September 1941. Needless to say, they were given a fighter which still needed development. The decision was justified by the high speed of the Typhoon and its massive firepower, but in the first nine months of service, more Typhoons were lost due to structural or engine failure than to combat. Power dives especially resulted in frequent structural failure at the tail, such as during the Dieppe operation in August 1942, when a group of Typhoons dove on a formation of Fw 190s, damaging three of them, but losing two Typhoons whose pilots did not manage to pull out of the dive because of tail collapse.

Despite these problems, operations continued and the accident rate declined as the engine troubles were solved to a reasonable extent. Also, the structure of the tail assembly was strengthened. No. 609 Squadron, led by Roland Beamont, moved to Manston in November 1942 to counter numerous raids by Fw 190s, as the Spitfires were unable to do so. The fast Typhoons were and recorded reasonable success. Moreover, the Typhoons with their powerful cannon were recognized as a good strafing platform, carrying out more and more sorties in this role. This success led to trials with two 250 lb. or two 500 lb. bombs carried on underwing racks. The load was later increased to two 1,000 lb. bombs.

Evolution of the Canopy

The development of the 'Tiffy', as the Typhoon was nicknamed, addressed most of weak points surrounding the engine and airframe. The most visible change to the airframe was replacement of the 'Car Door' arrangement to the first 'Bubble' sliding canopy used on the fighter. The first Typhoons were produced with the cockpit accessed by a door on the port side with a transparent roof opening to the left. Behind the pilot, a metal dorsal fairing with the mast for the radio aerial protruding through it limited the pilot's rearward view. During 1941, the solid metal aft dorsal fairing was replaced with a transparent one and the shape of the pilot's head armour plate was modified to allow a better view towards the six. Despite this, overall pilot's visibility was still limited by the canopy framing and equipment inside, so from August 1943, the aerial mast was moved back to the rear fuselage. Meanwhile, from January 1943, a new, one piece sliding bubble canopy was tested and from November 1943, all production aircraft from JR333 on were fitted with it and existing Typhoons were modified using conversion kits. Not to be overlooked was another change, as the bubble canopied Typhoons were now able to carry eight RP-3 unguided rockets, allowing them to attack heavily armed targets. Although all 26 operational squadrons using the Typhoon Mk.IB were at the time of D-Day fully employed in ground attack duties, it should be noted that pilots of this aircraft shot down 246 enemy planes with John R. Baldwin being the most successful ace on the Typhoon, claiming 15 victories plus one shared and four damaged enemy aircraft. It is also interesting that the black and white recognition stripes were first adopted for Typhoons due to their overall shape similarity to the Fw 190 resulting in the odd friendly fire incident. Without its underwing load, it was capable of a maximum speed of 425 mph (684 km/h), reduced to 398 mph (640 km/h) with two 500 lb bombs. It was still faster than any other dedicated ground attack platform, making it a genuine fighter-bomber of its time.



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
VOLBA



BEND
OHNOU



OPEN HOLE
VYVRTAT OTVOR



SYMMETRICAL ASSEMBLY
SYMETRICKÁ MONTÁŽ



REMOVE
ODŘÍZNOUT



REVERSE SIDE
OTOČIT



APPLY EDUARD MASK
AND PAINT
POUŽÍT EDUARD MASK
NABARVIT

PARTS



DÍLY



TEILE



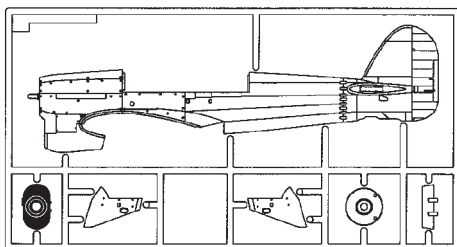
PIÈCES



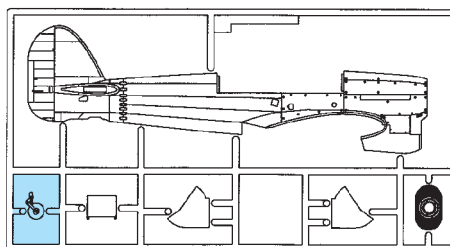
部品

PLASTIC PARTS

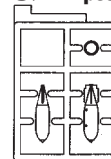
A>



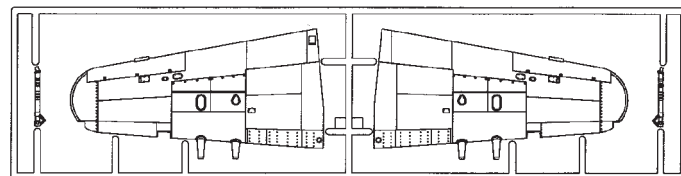
B>



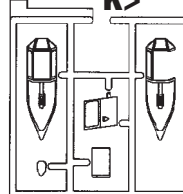
U> 2 pcs.



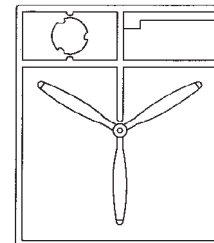
E>



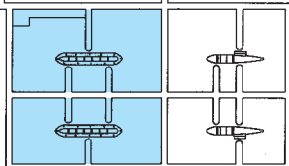
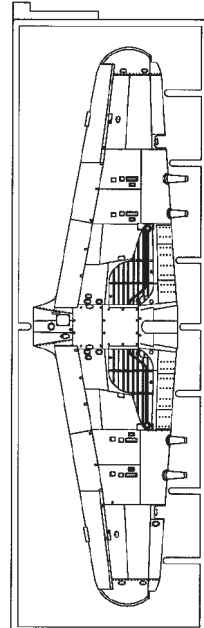
K>



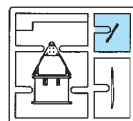
C>



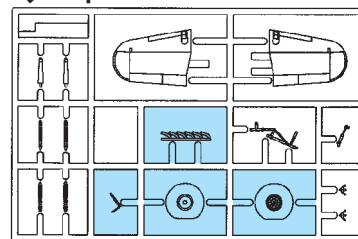
F>



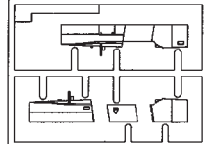
R>



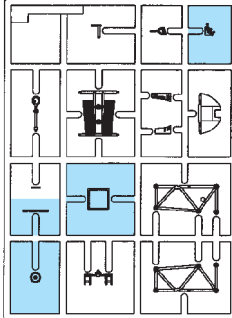
Q> 2 pcs.



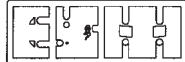
J>



N>



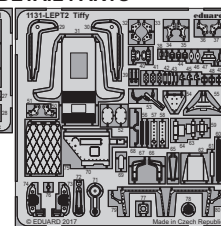
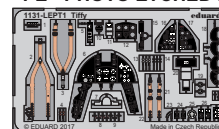
M>



P>



PE - PHOTO ETCHED DETAIL PARTS



RP - RESIN PARTS



R1 2 pcs.



R2



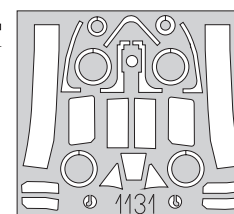
R3 2 pcs.



R6 2 pcs.



R7



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

COLOURS



BARVY



FARBEN



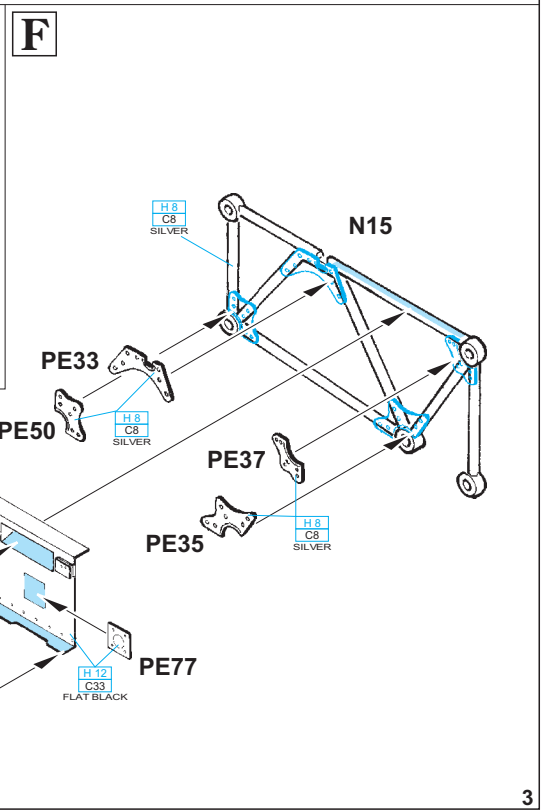
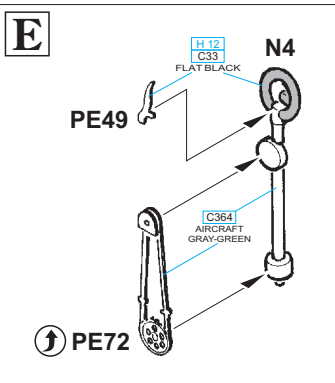
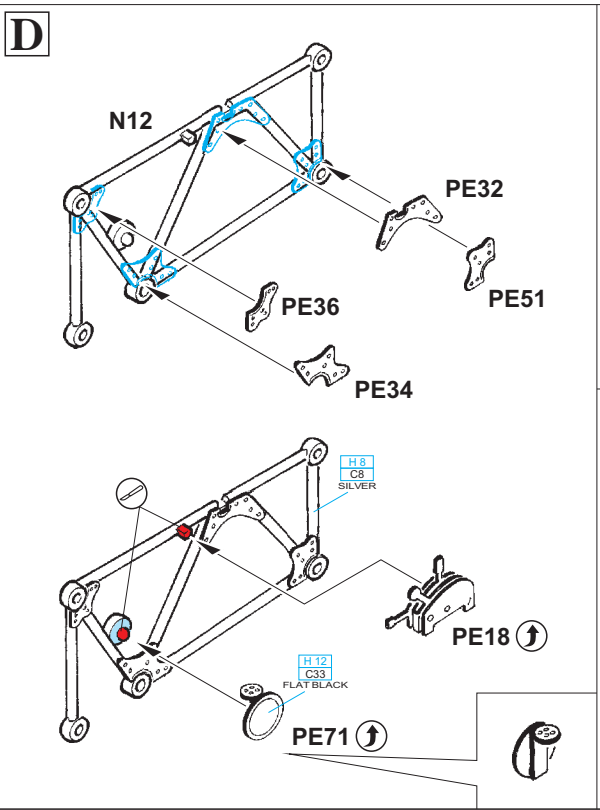
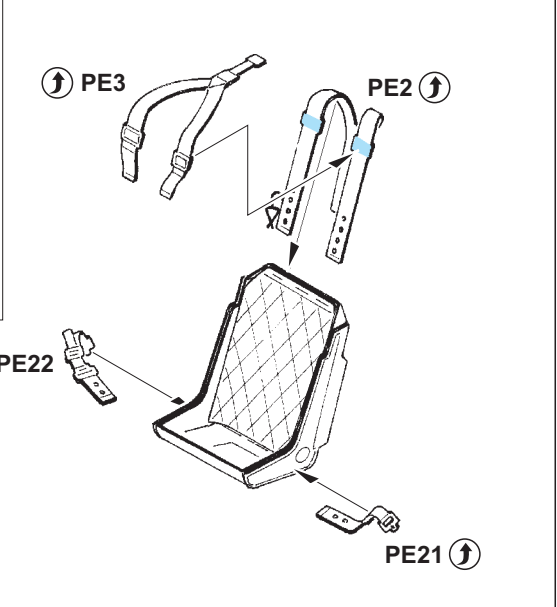
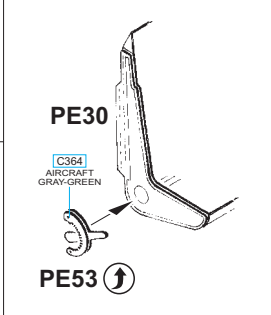
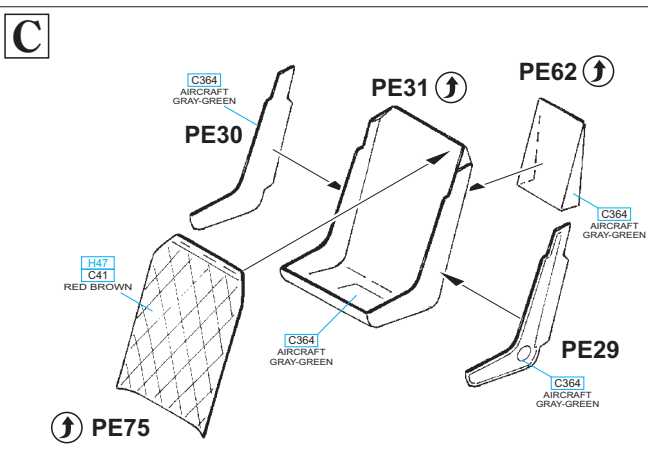
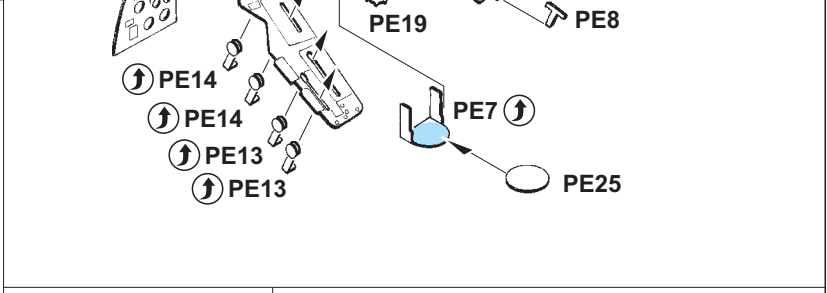
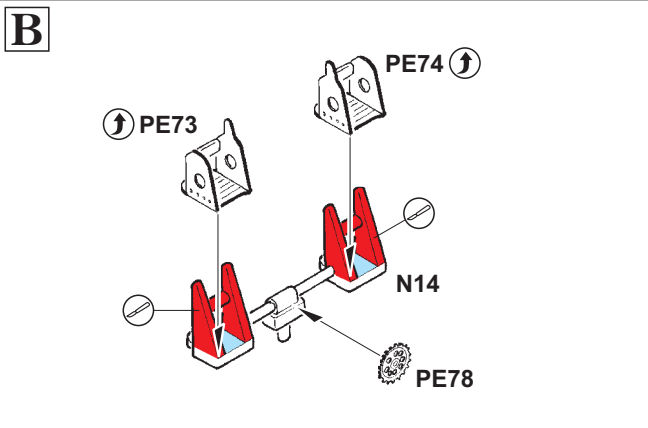
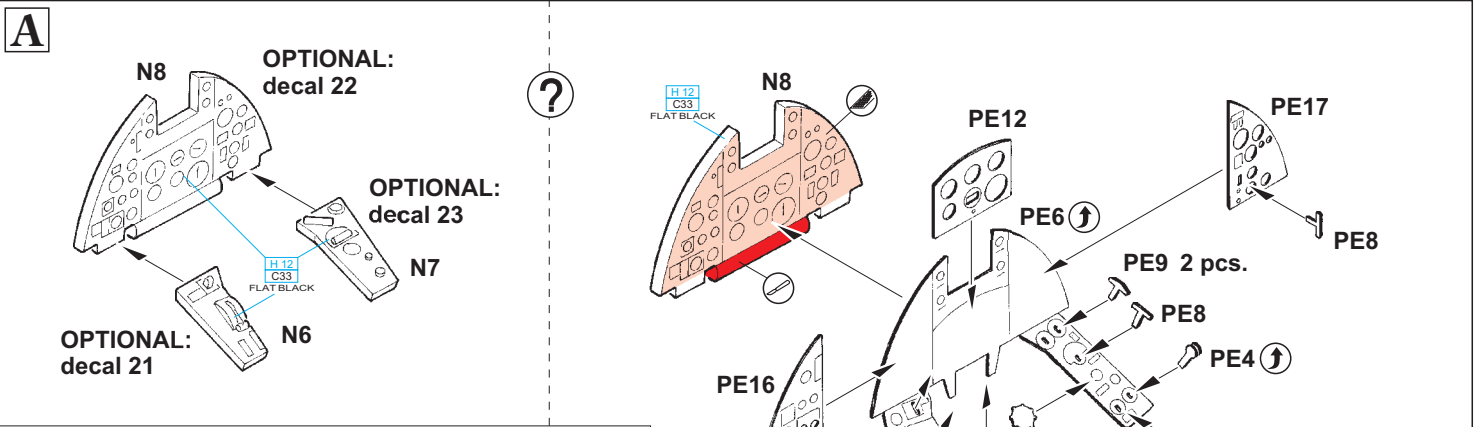
PEINTURE

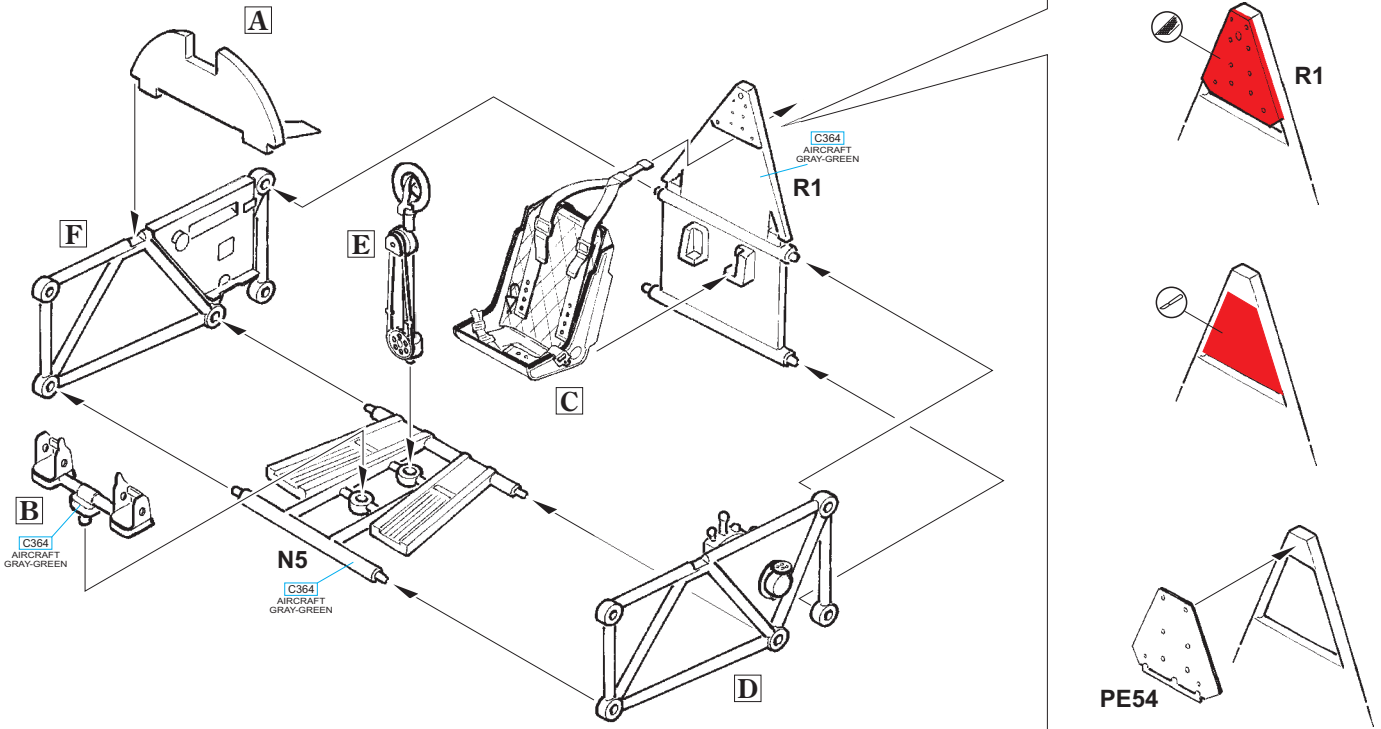
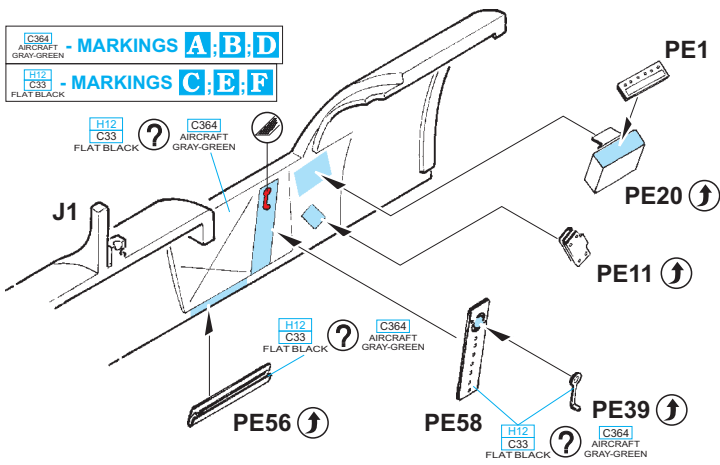
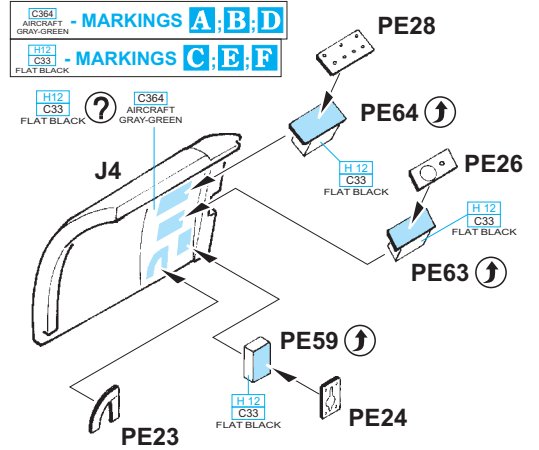
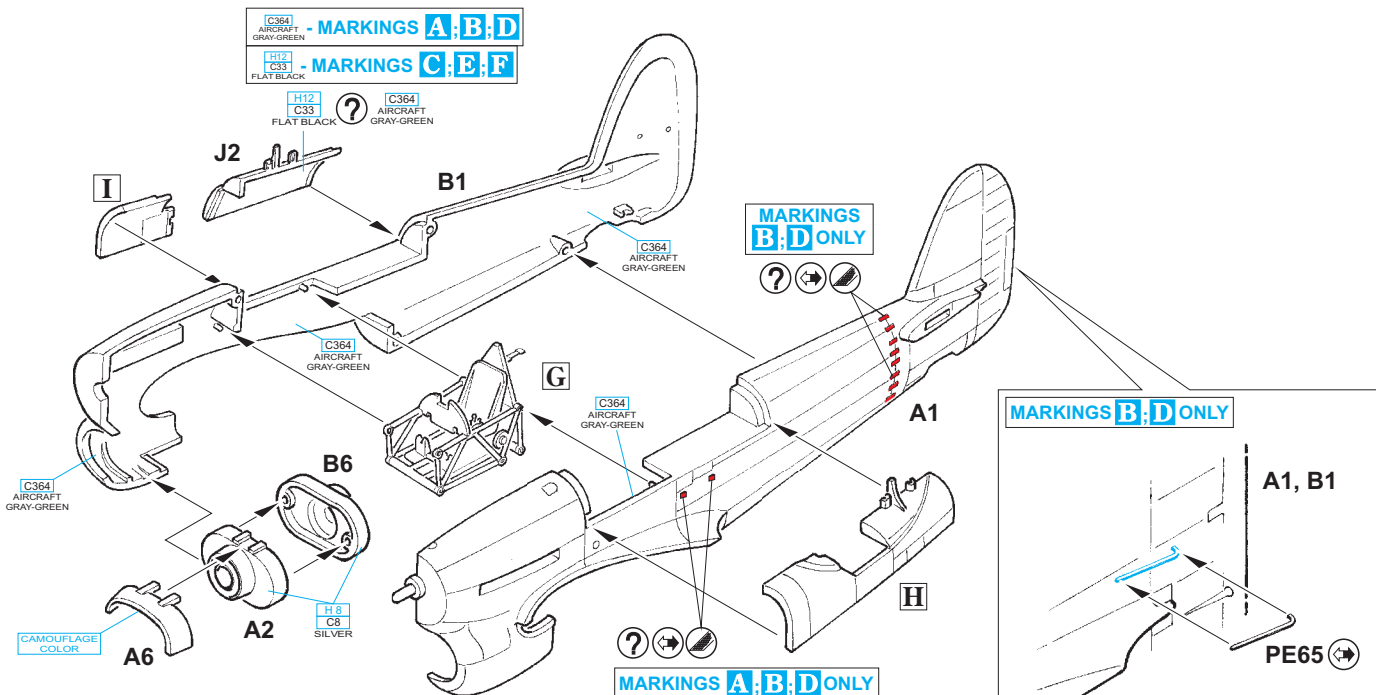


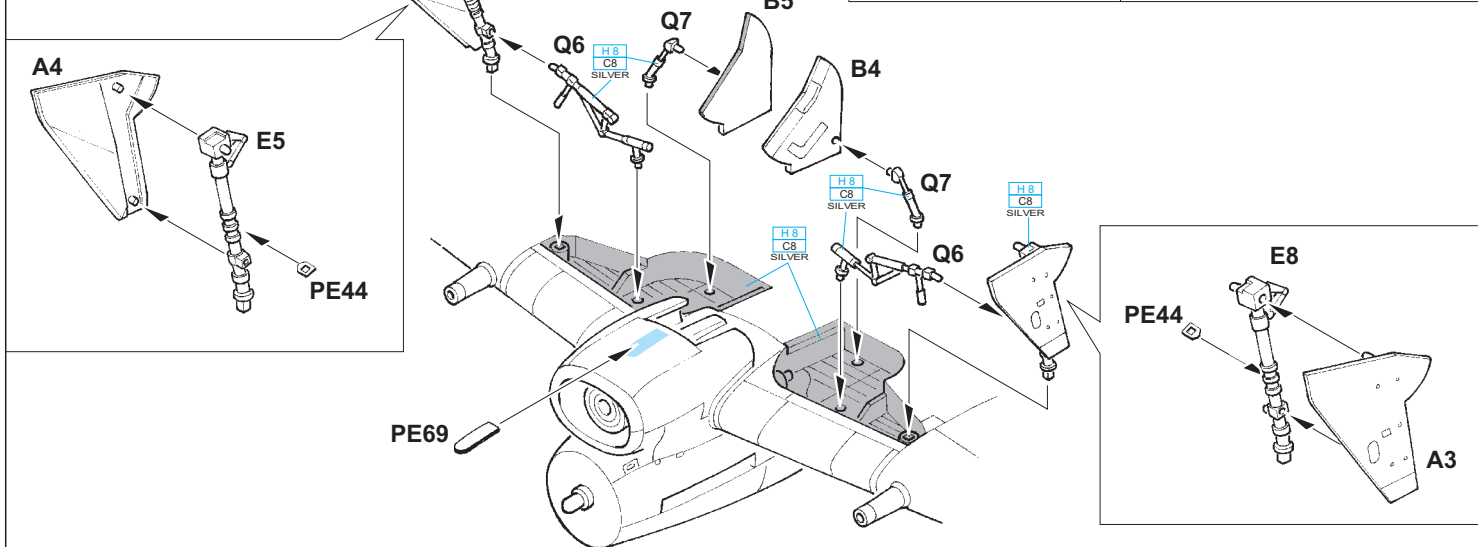
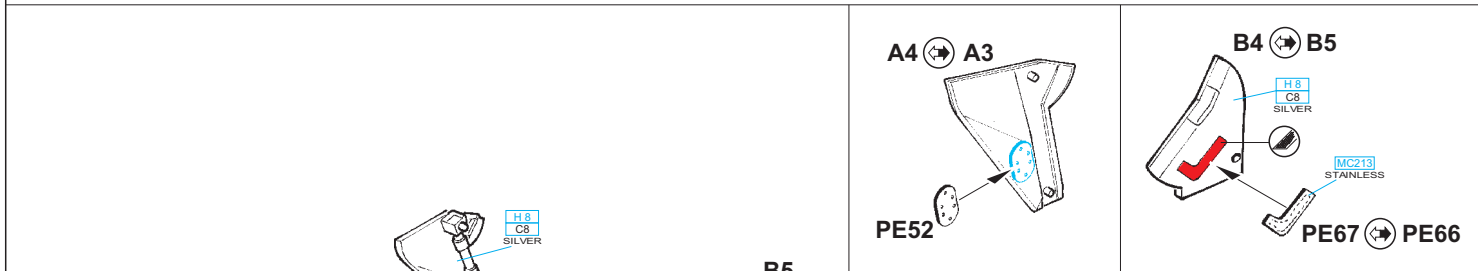
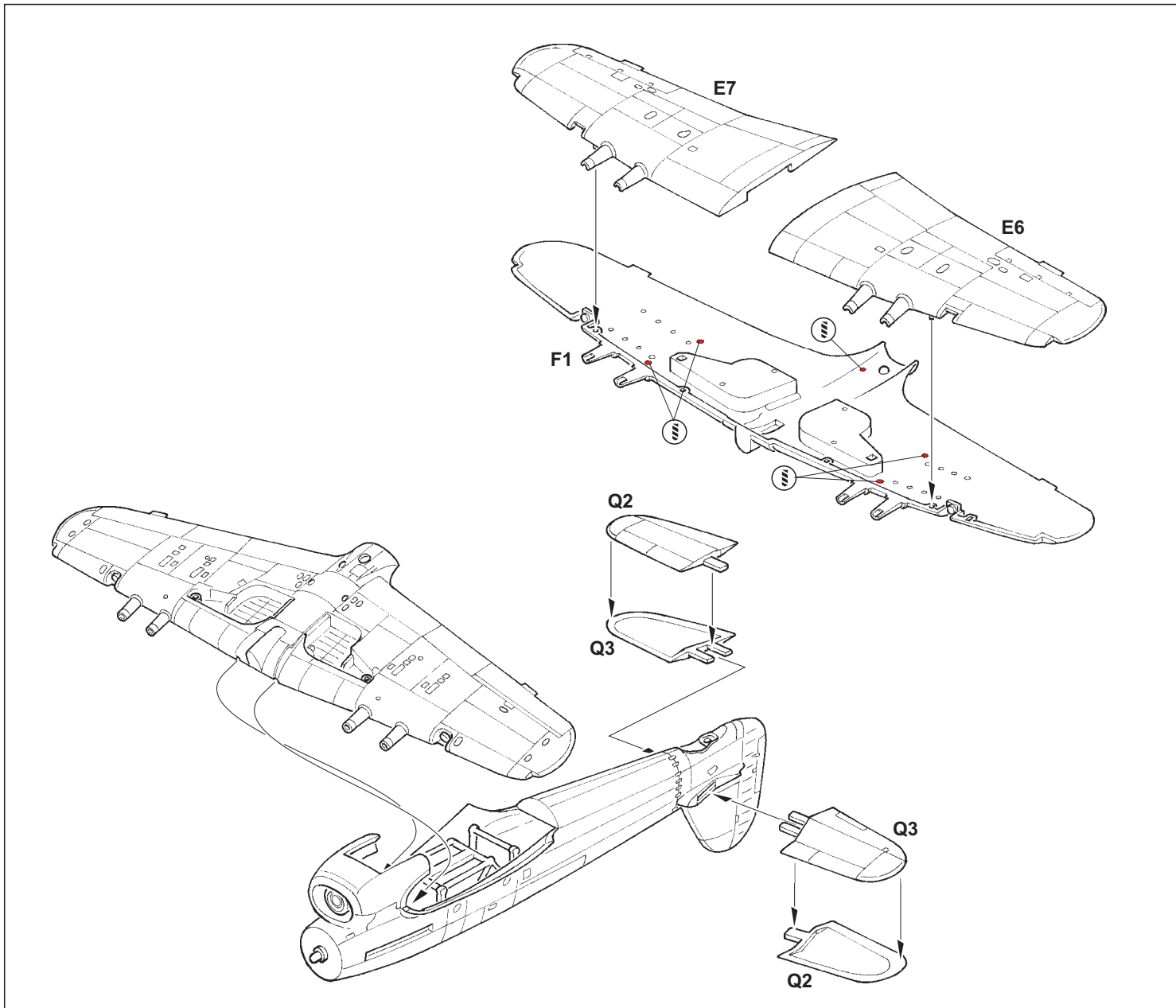
色

GSi Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H 1	C1	WHITE
H 4	C4	YELLOW
H 8	C8	SILVER
H 11	C62	FLAT WHITE
H 12	C33	FLAT BLACK
H 33	C81	RUSSET
H 37	C43	WOOD BROWN
H 47	C41	RED BROWN
H 77	C137	TIRE BLACK

AQUEOUS		
Mr.COLOR		
H 90	C47	CLEAR RED
H 94	C138	CLEAR GREEN
	C361	DARK GREEN
	C362	OCEAN GRAY
	C363	MEDIUM SEA GRAY
	C364	AIRCRAFT GRAY-GREEN
	C368	SKY
Mr.METAL COLOR		
MC213		STAINLESS
MC214		DARK IRON



G**H****I****J**



PE46, PE61 - MARKING C ONLY

RP2 - MARKINGS A, C, E, F

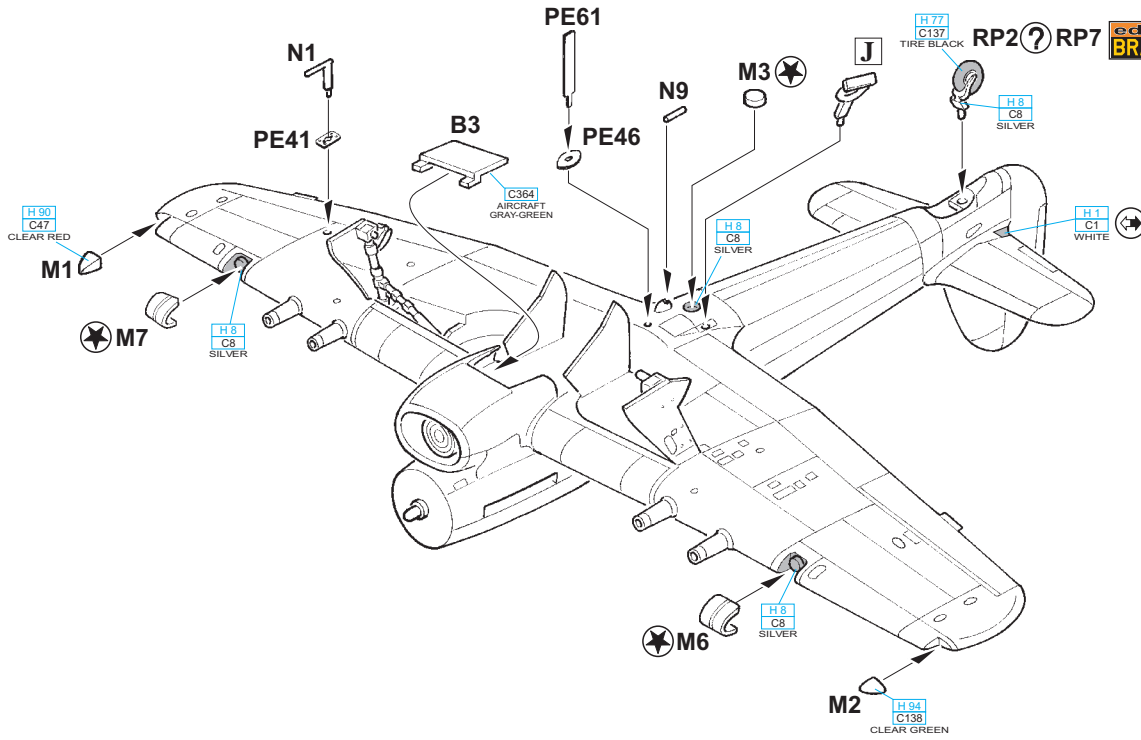
RP7 - MARKINGS B, D

J

PE43

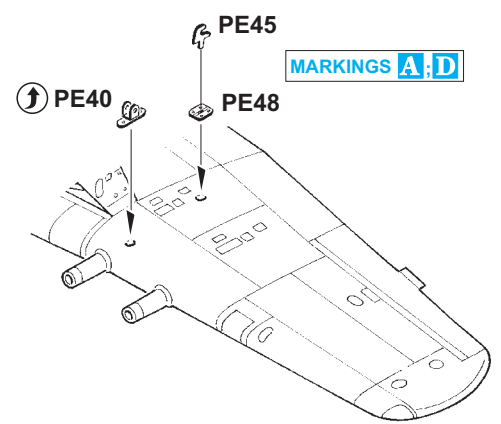
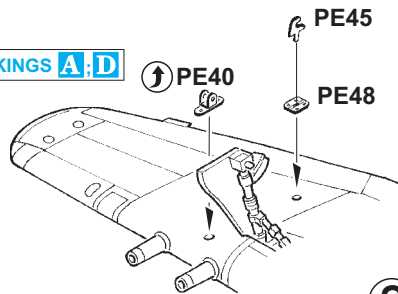


N2

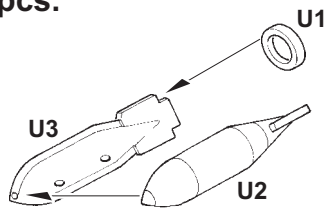


MARKINGS A, D

MARKINGS A, D



2 pcs.



MARKINGS B, C, E, F

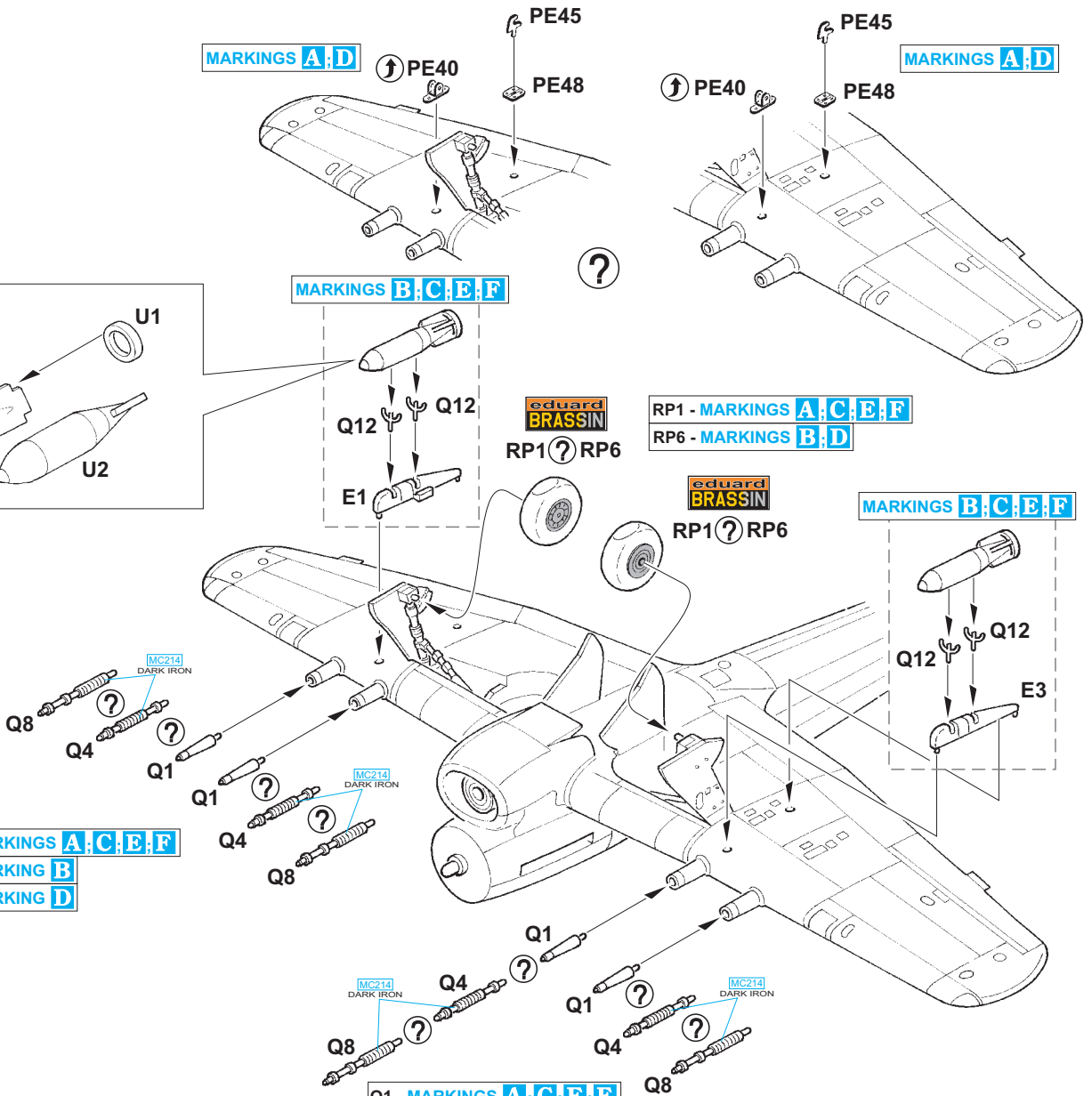
RP1 - MARKINGS A, C, E, F

RP6 - MARKINGS B, D

eduard BRASSIN RP1 ? RP6

eduard BRASSIN RP1 ? RP6

MARKINGS B, C, E, F



Q1 - MARKINGS A, C, E, F

Q4 - MARKING B

Q8 - MARKING D

Q1 - MARKINGS A, C, E, F

Q4 - MARKING B

Q8 - MARKING D

K

C364 AIRCRAFT GRAY-GREEN - MARKINGS A;B;D
 H12 C33 FLAT BLACK - MARKINGS C;E;F

PE79

H12 C33 FLAT BLACK ? C364 AIRCRAFT GRAY-GREEN

K3

K

C364 AIRCRAFT GRAY-GREEN - MARKINGS A;B;D
 H12 C33 FLAT BLACK - MARKINGS C;E;F

PE79

H12 C33 FLAT BLACK ? C364 AIRCRAFT GRAY-GREEN

K1

L MARKING C ONLY

PE76

H8 C8 SILVER H12 C33 FLAT BLACK

K5

N

J4

J2

B1

PE60

H12 C33 FLAT BLACK ? C364 AIRCRAFT GRAY-GREEN

C364 AIRCRAFT GRAY-GREEN - MARKINGS A;B;D
 H12 C33 FLAT BLACK - MARKINGS C;E;F

N

PE55

PE47

PE42

M

C364 AIRCRAFT GRAY-GREEN - MARKINGS A;B;D
 H12 C33 FLAT BLACK - MARKINGS C;E;F

J3

PE57

PE39

PE56

PE38

H12 C33 FLAT BLACK ? C364 AIRCRAFT GRAY-GREEN H12 C33 FLAT BLACK ? C364 AIRCRAFT GRAY-GREEN

O

PE3

R1

J1, J2

P

M5

J1, J4

PE68

H12 C33 FLAT BLACK H12 C33 FLAT BLACK ? C364 AIRCRAFT GRAY-GREEN

C364 AIRCRAFT GRAY-GREEN - MARKINGS A;B;D
 H12 C33 FLAT BLACK - MARKINGS C;E;F

O

PE55

PE47

PE42

C362 OCEAN GRAY

C361 DARK GREEN

C362 OCEAN GRAY

O

M4

R1

J1

ø - 0,6 mm
 l - 8,6 mm
 plastic

Q

C2

A5

P1

C1

Q

R3

L

RP3

H37 C43 WOOD BROWN H33 C81 RUSSET

K

P

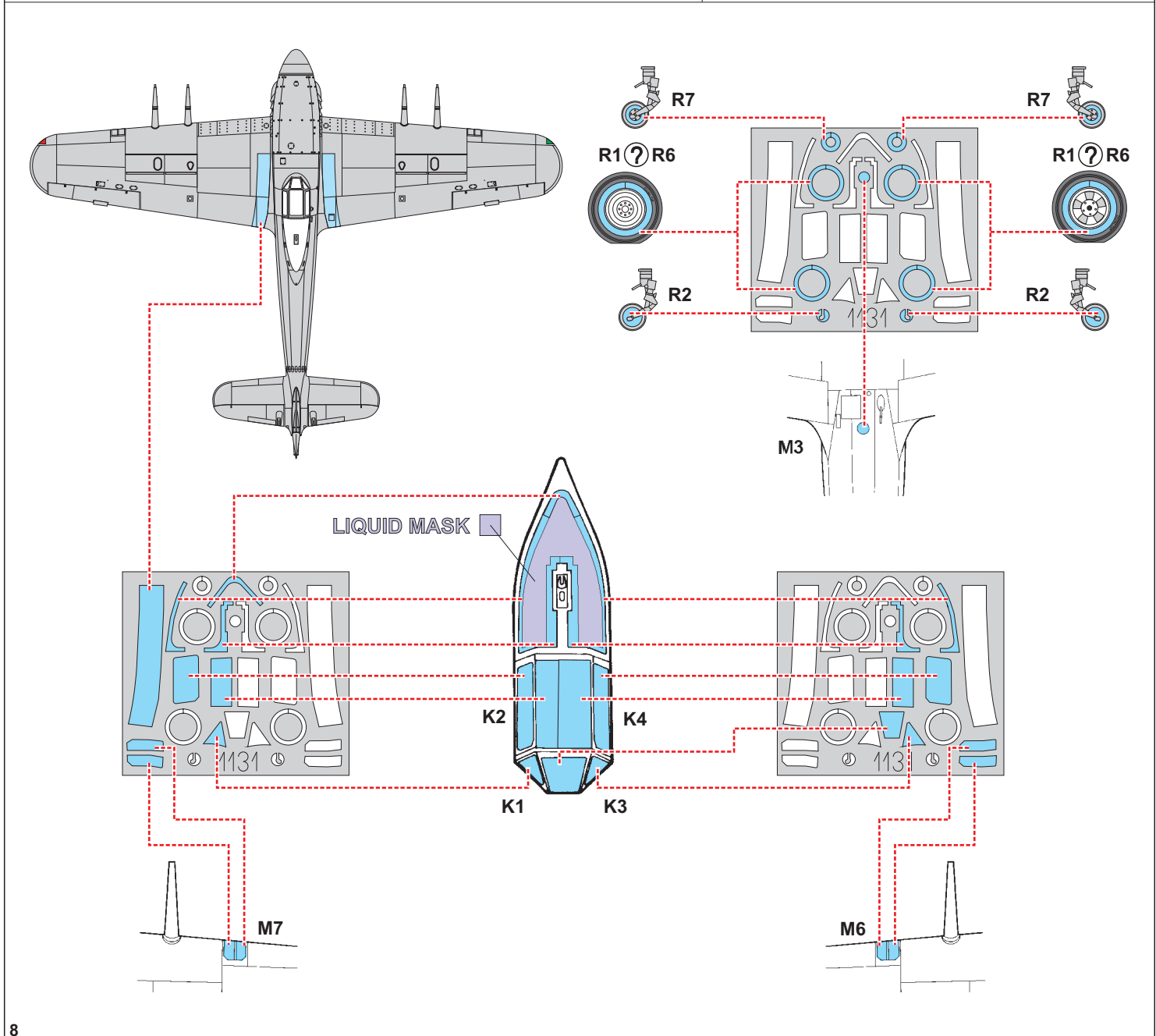
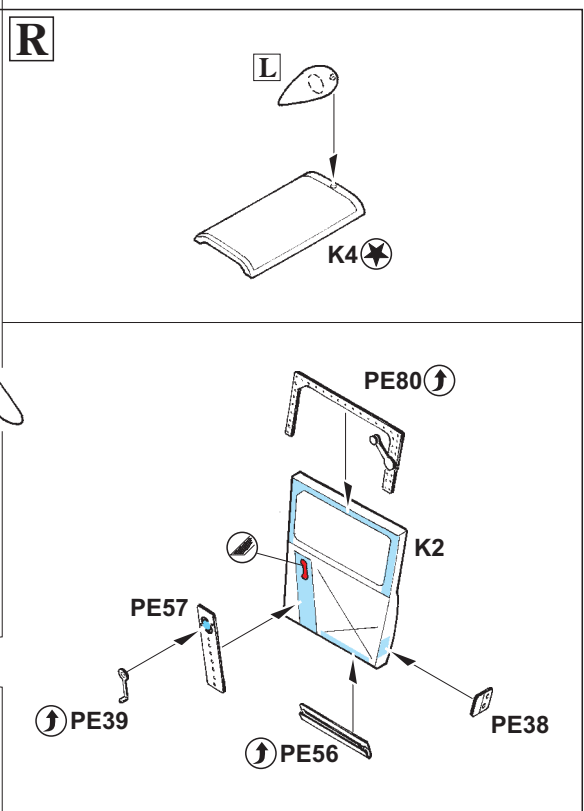
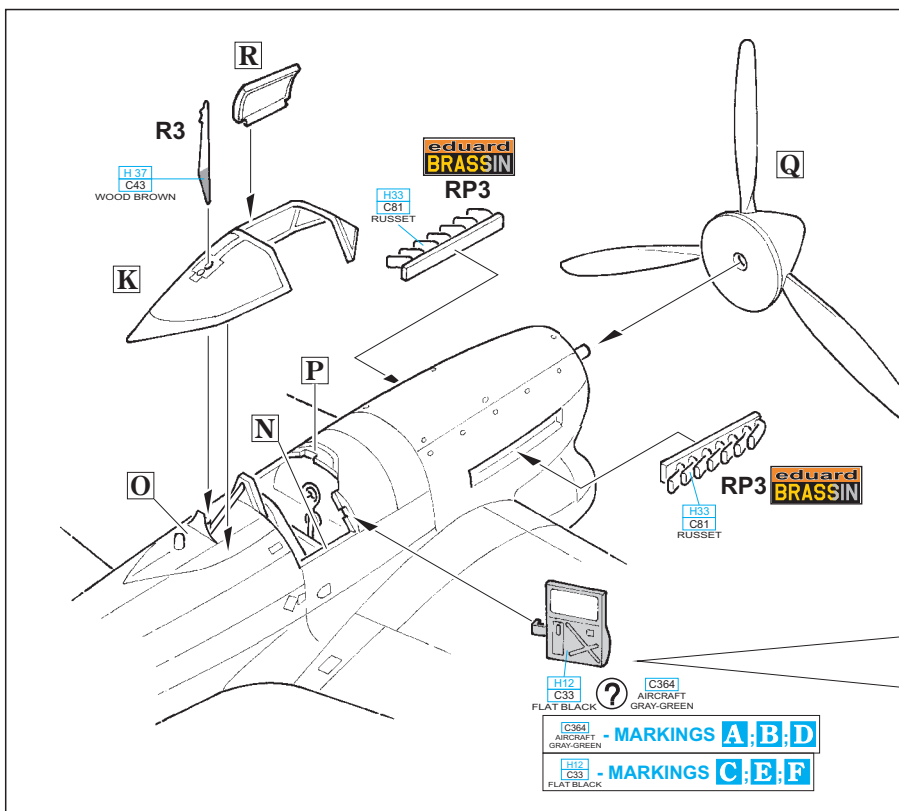
O

M

RP3

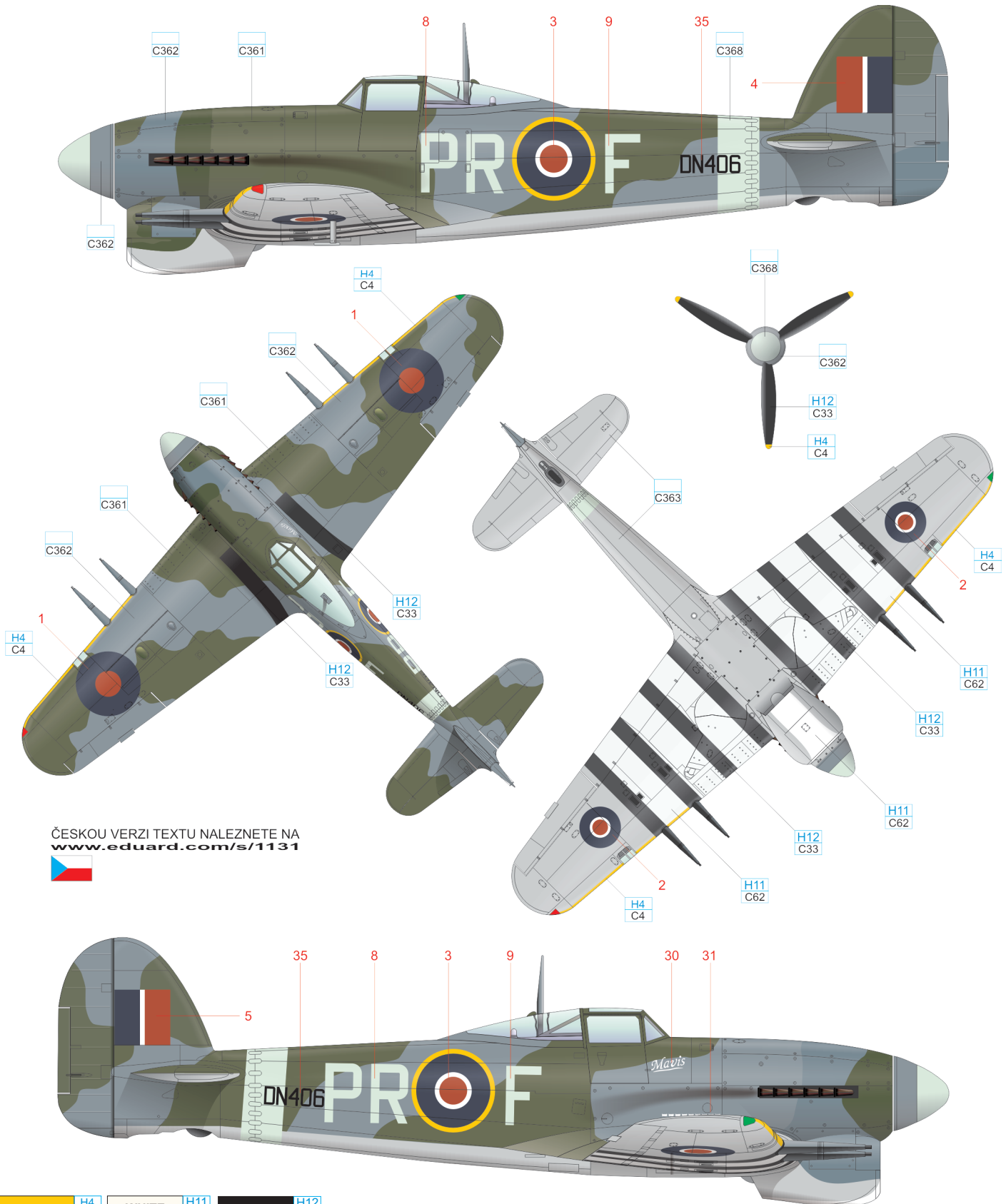
H33 C81 RUSSET

eduard BRASSIN



A DN406, No.609 Squadron, RAF Manston air base, May 1943

No. 609 Squadron was formed on February 10th, 1936 at RAF Yeadon (currently Leeds Bradford) as part of the Royal Auxiliary Air Force and was equipped with bombers. In 1938 the unit became a part of Fighter Command and in August 1939 received the Spitfire Mk.I. In the spring of 1942, it was re-equipped with the Spitfire Mk.V to be soon replaced with the new Hawker Typhoon. Members of the unit then served out the war on the type, ending it based at Plantlünne in Germany. The illustrated aircraft is painted in Dark Green and Ocean Grey on the upper surfaces and Medium Sea Grey on the lowers. Due to the distinct possibility of being confused with the Fw 190, the aircraft received quick identification markings in the form of a white nose beginning November 19th, 1942. This included the spinner. This marking was used until December 5th, 1942. The newly painted areas, being freshly applied, tended to be conspicuous. Another marking that helped distinguish the Typhoon from the Fw 190 were the black and white stripes on the bottom of the wings. The white bands were specified to be 24 inches wide, and the black ones twelve. The name 'Mavis' (probably name of wife or girlfriend of P/O Peter Raw, who flown often this aircraft) and the silhouettes of 18 locomotives symbolizing successful ground attack missions appear on the right side of the fuselage. The spinner is often pictured as being partially in red and Sky. Current research suggests Ocean Grey and Sky. This would have been common to aircraft of No.609 Squadron.



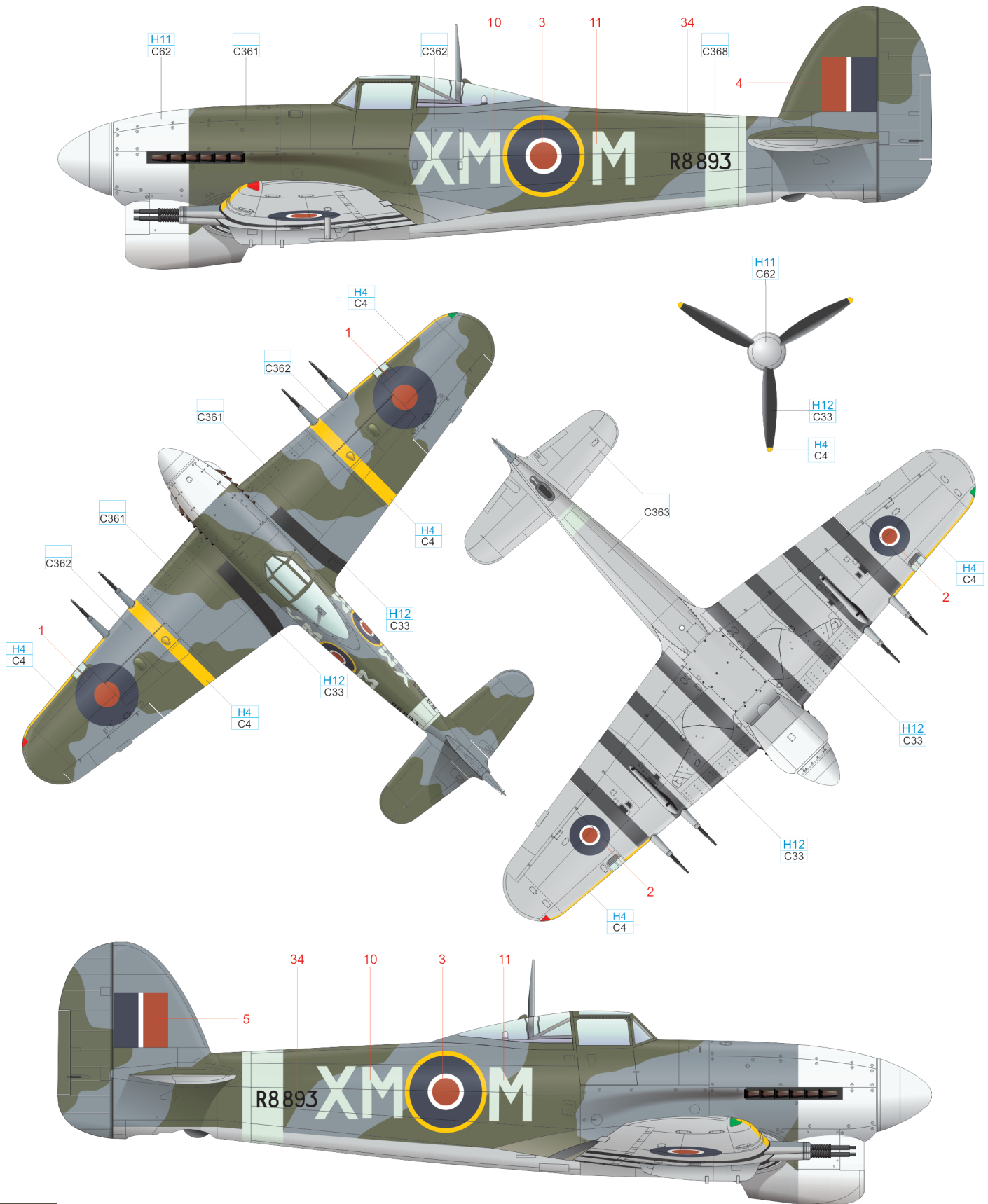
ČESKOU VERZI TEXTU NALEZNETE NA
www.eduard.com/s/1131



YELLOW	H4 C4	WHITE	H11 C62	BLACK	H12 C33
MEDIUM SEA GRAY	C363	OCEAN GRAY	C362	DARK GREEN	C361
		SKY	C368		

B R8893, No.182 Squadron, RAF Martlesham Heath air base, November 1942

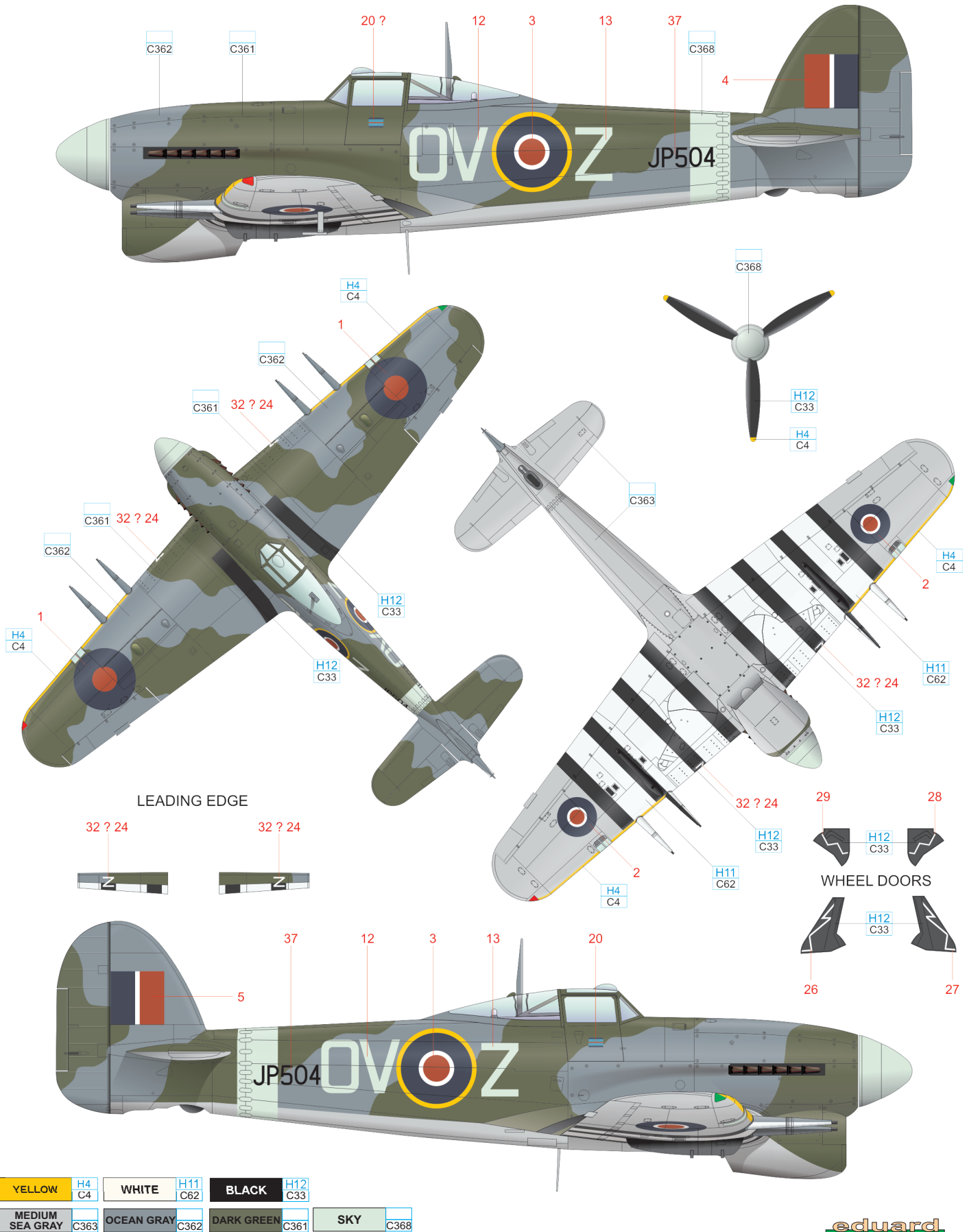
No.182 Squadron was formed on August 25th, 1942 at Martlesham Heath and was equipped with the Typhoon. It operated against targets in occupied France and supported the Normandy landings. Subsequently, the unit was relocated to France, from where it supported the allied thrust deeper into Germany. On September 30th, 1945 No.182 Squadron was disbanded at Lübeck. With the white nose, this aircraft served between November 19th and December 5th, 1942, when the marking served as an aid to differentiate between friendly and enemy aircraft. In addition, the lower wing surfaces were painted with four black stripes twelve inches in width and twenty-four inches apart. Another identifier was introduced after the loss of two No.56 Squadron Typhoons to Spitfires on June 1st, 1942 and comprised twelve inch wide yellow bands on the upper wing surfaces.



YELLOW	H4 C4	WHITE	H11 C62	BLACK	H12 C33
MEDIUM SEA GRAY	C363	OCEAN GRAY	C362	DARK GREEN	C361
		SKY	C368		

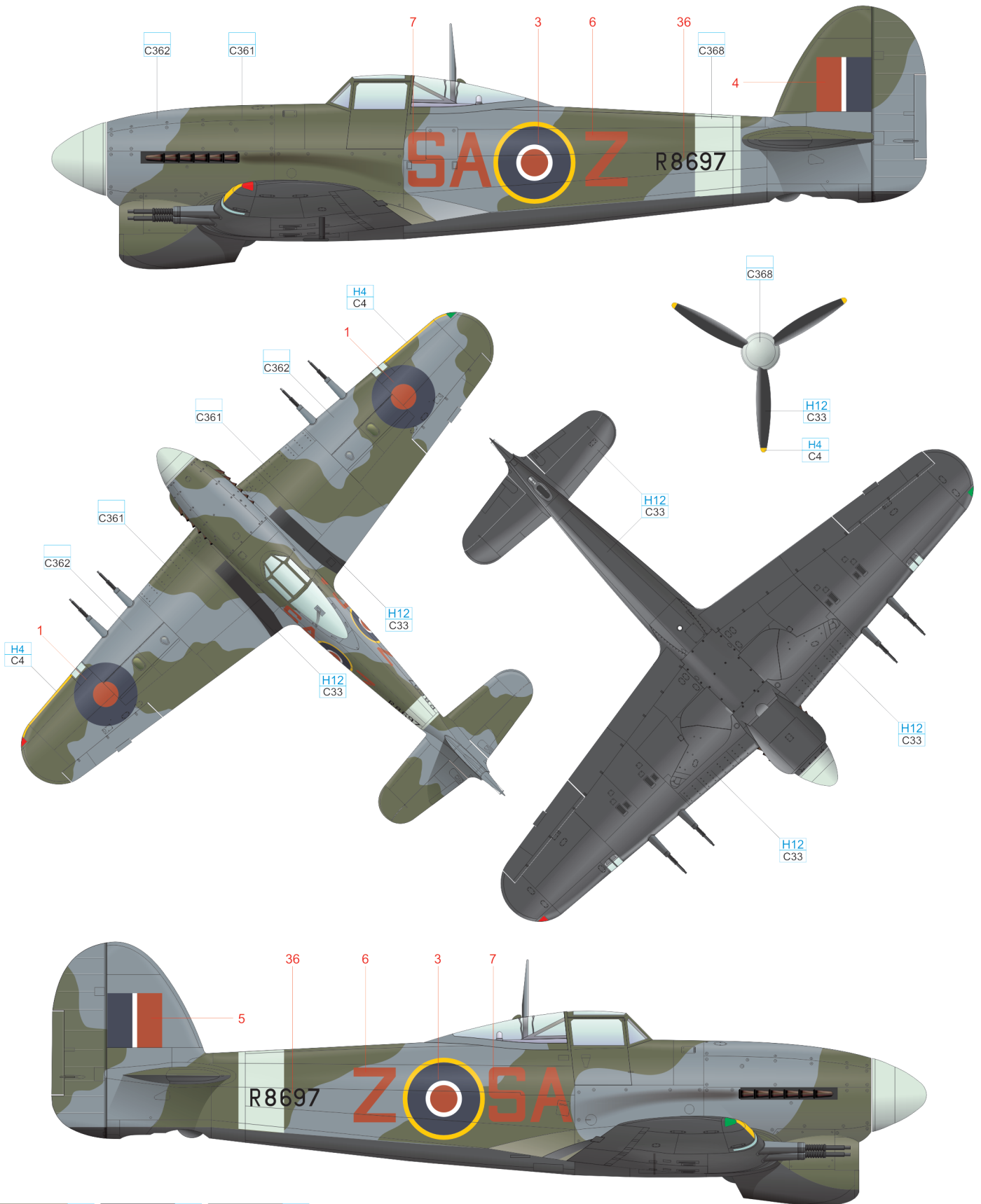
C JP504, No.197 Squadron, RAF Tangmere air base, 1943

No.197 Squadron RAF was formed on November 21st, 1942 and its home base became RAF Turnhouse. It was equipped with the Typhoon Mk.I from the outset. After mandatory training, the unit took part in combat operations against targets in France in support of the Normandy landings. This was followed by relocation to France and covering the allied advance into the heart of Germany. No.197 Squadron ended its service career at Hildesheim, where on August 31st, 1945 it was disbanded. The depicted aircraft was flown by the Squadron CO. For quicker identification of the CO's aircraft during forming up, the inner landing gear covers were painted black and also received white lines. An identifying mark to better recognize the Typhoon consisted of the four twelve inch black bands under each wing, with a twenty-four inch space between them that from December 1942 was painted white. The aircraft carries bomb racks.



D R8697, No.486 Squadron RNZAF, RAF Wittering air base, August 1942

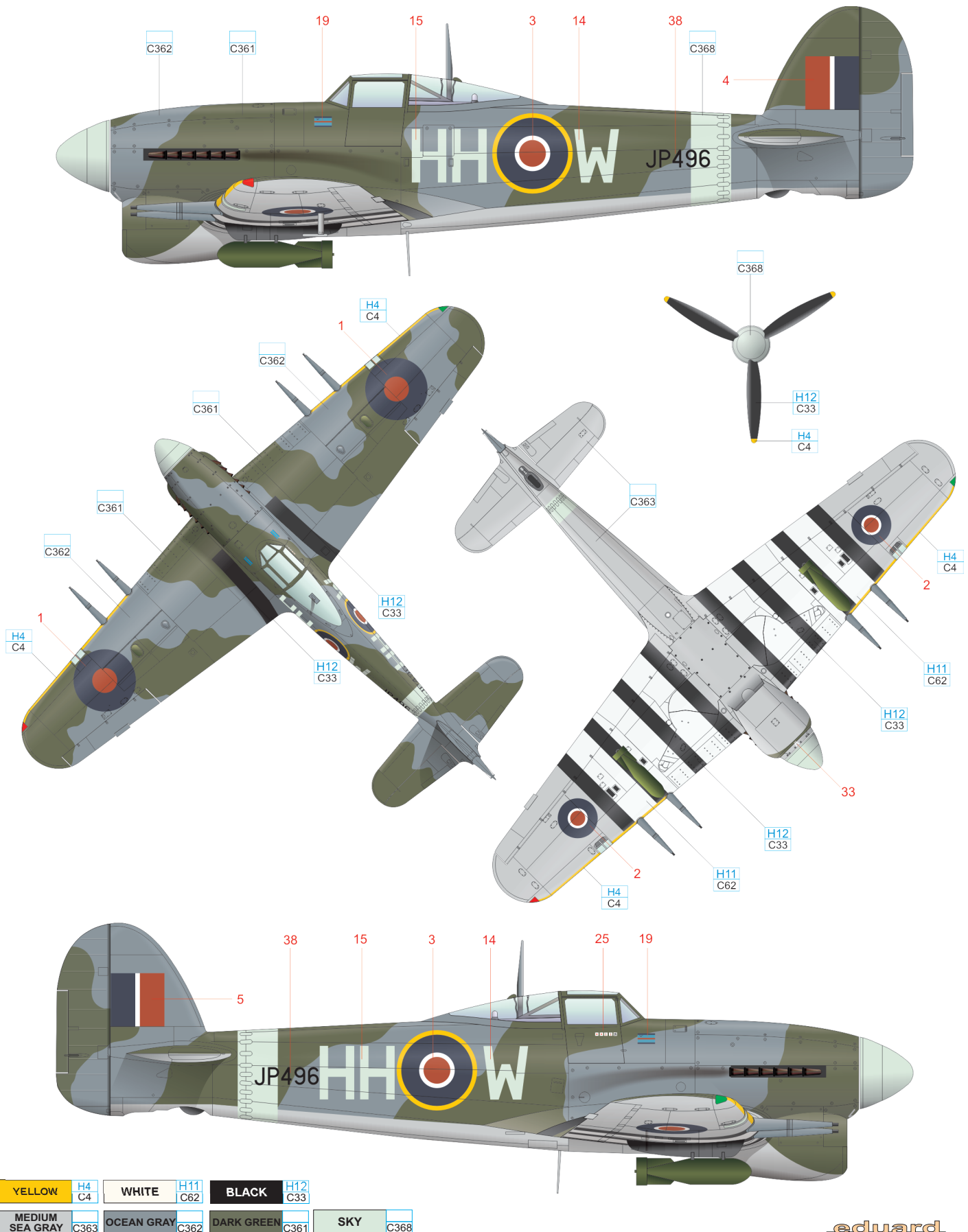
No.486 Squadron was formed on March 7th, 1942 at RAF Kirton on Lindsay in Lincolnshire County. It's primary task was that of night fighting and it was equipped with the Hurricane. In short order, the unit was re-equipped with the Typhoon. A number of the aircraft were painted black on their lower surfaces, and this included painting over of the national markings. In accordance with orders, the fuselage codes of these were painted Dull Red, as was the standard for night fighter units. No. 486 Squadron used the Typhoon up to January 1944, when the unit rearmed with the types' successor, the Hawker Tempest.



YELLOW	H4 C4	BLACK	H12 C33	SKY	C368
MEDIUM SEA GRAY	C363	OCEAN GRAY	C362	DARK GREEN	C361

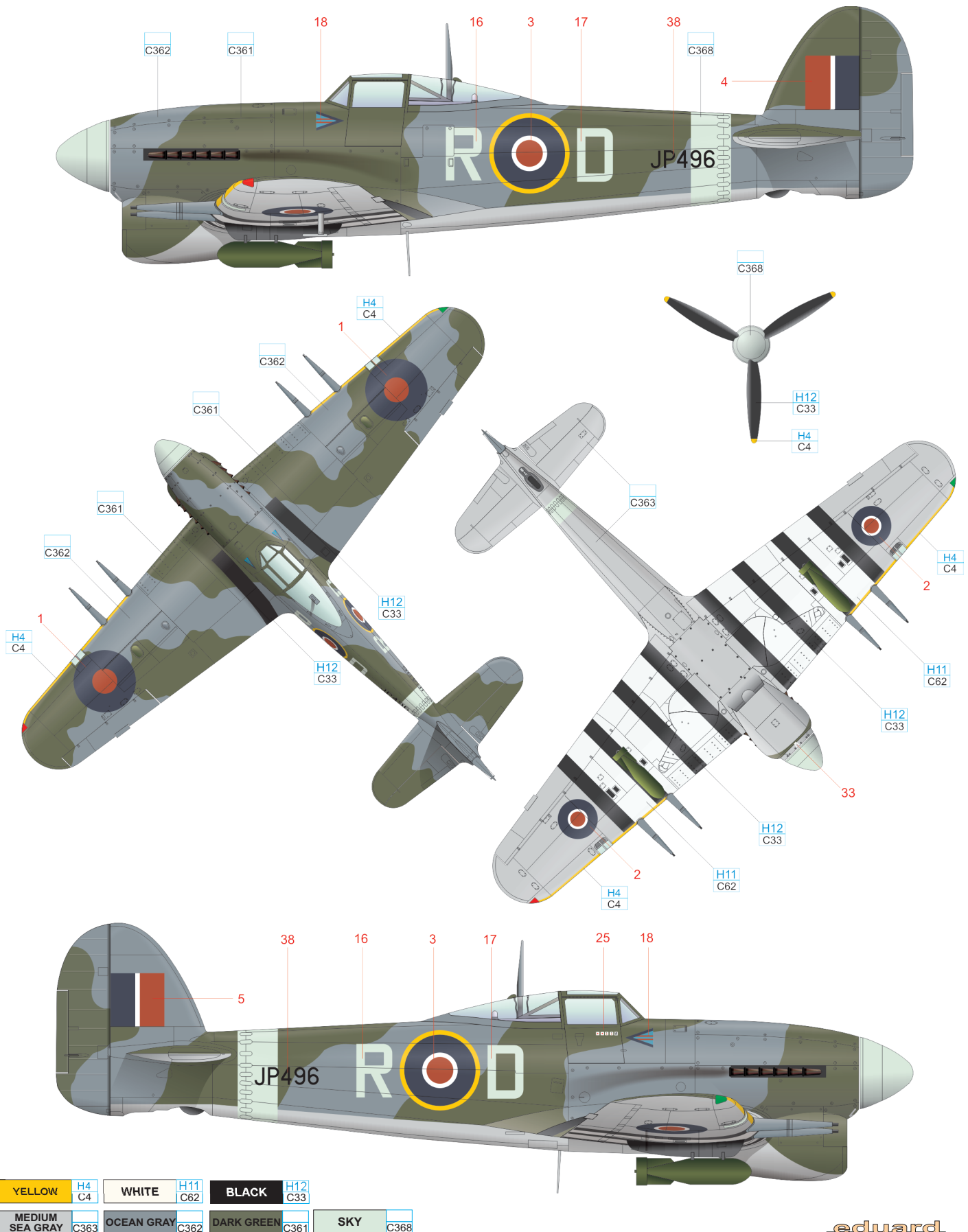
E JP496, Sqn.Ldr. T.P. Davidson, No.175 Squadron, RAF Lydd air base, July 1943

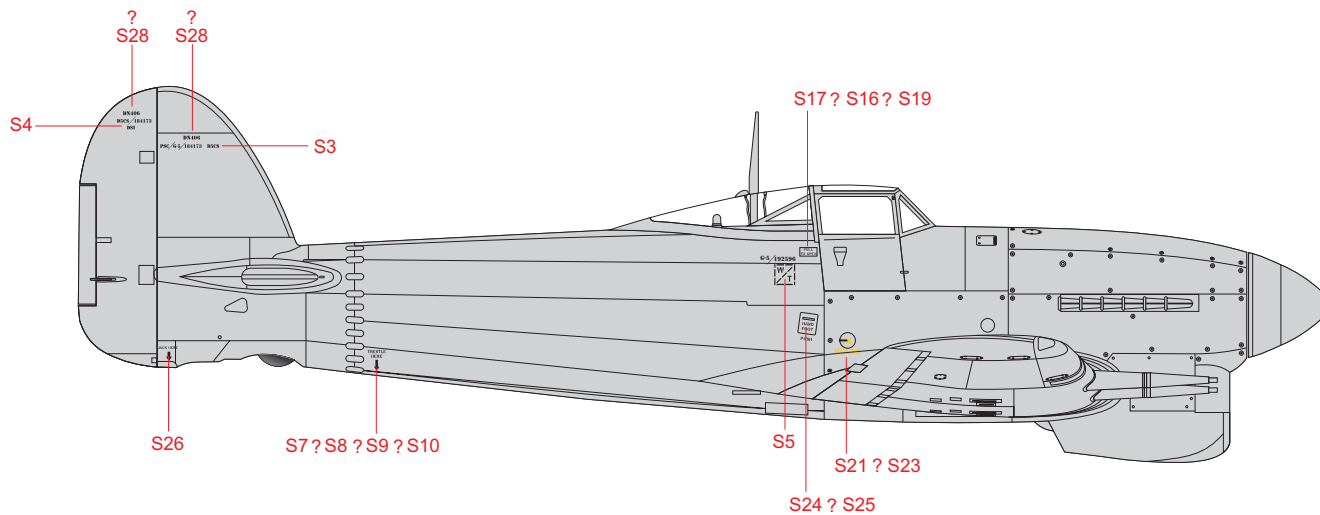
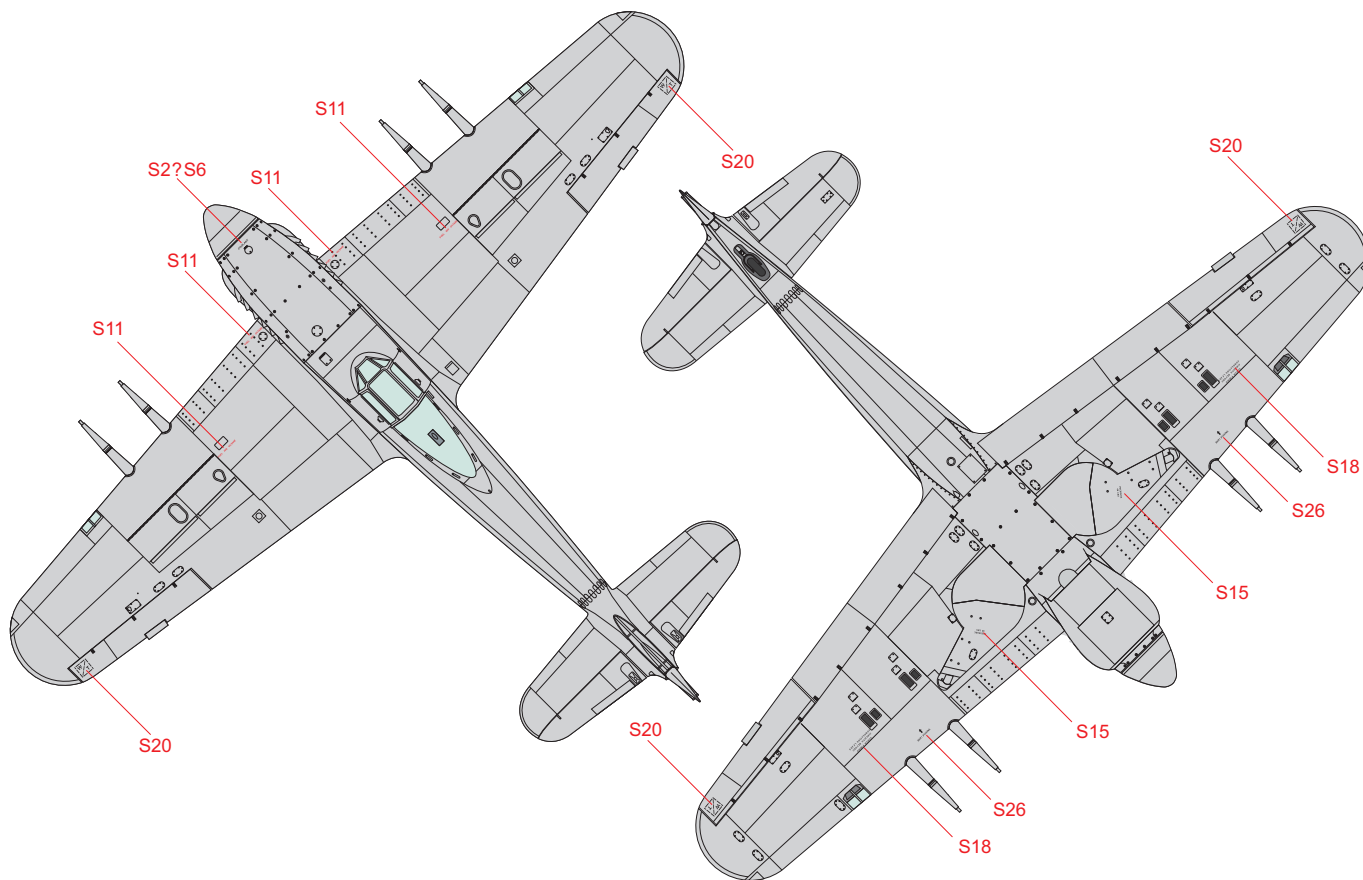
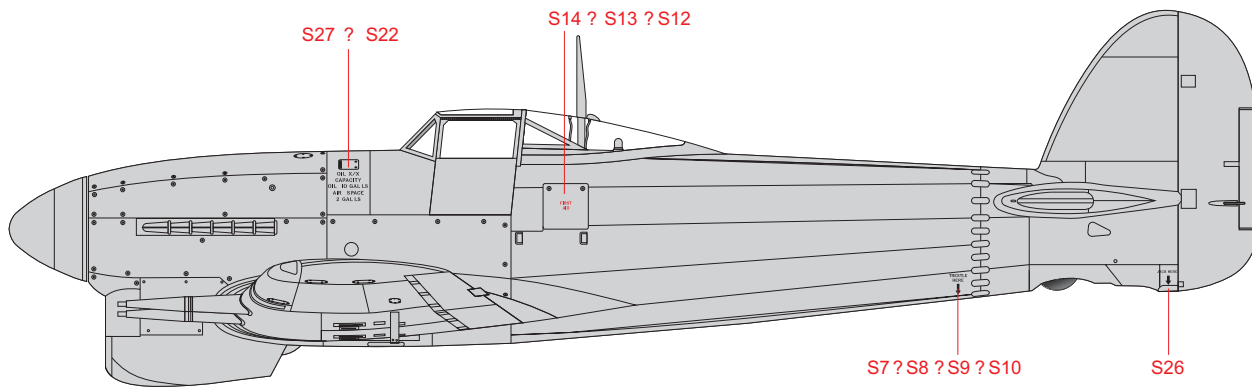
Canadian fighter ace Robert Tremagne Pillsbury Davidson, DFC, was born on February 10th, 1917 in Vancouver, and he entered the ranks of the RAF in 1937. He underwent pilot training after which he was assigned to a list of AACU units (Anti Aircraft Cooperation Units) in Egypt. After the beginning of the Second World War, he took part in the battles over Greece and Crete as a member of No.30 Squadron, which was equipped with Blenheims. After the German occupation of Crete, No.30 Squadron, by then equipped with Hurricanes, was moved to Ceylon. During the latter half of 1942, Davidson moved back to Great Britain, where he subsequently over April and May of 1943 retrained on the Typhoon within the ranks of No.59 OTU. In May of the same year he served in 175 Squadron, in July 1943 he became commander of this Squadron. It was during this time that he flew the illustrated aircraft, wearing the markings of the unit CO. On the cockpit door, he had his victories painted – two Japanese, two Italian and one German kill. The Typhoon carries the quick identification markings on the bottom of the wings, black and white bands, and is also equipped with bomb racks.



F JP496, Wg Cdr T.P.Davidson, 121st Airfield, RAF Lydd air base, December 1943

Canadian Robert Tremagne Pillsbury Davidson, DFC, was assigned the CO of No. 121 Airfield and held the rank of Wing Commander. He then held the CO posting from January 20th, 1944 at the Canadian No. 143 Wing RCAF, with which he took part in attacks to support the upcoming Normandy landings. On May 8th, 1944 he had to set down in France due to engine failure. He was able to evade capture and join the French underground, and took part in sabotage operations in the vicinity of Pas de Calais. For his actions, he was awarded the Croix de Guerre with Gold Star. On September 6th, 1944 he rejoined the RAF and served with No. 83 GSU. At the end of 1944 he joined the RCAF. In the fall of 1952 he fought in Korea as a member of the American 355th FIS flying Sabres. He left the RCAF in 1968 and died on December 13, 1976 in Kempville, Ontario. Even after taking on CO duties of No. 121 Wing, he kept his JP496 which he flew while with No. 175 Squadron. He exercised his right as Wing Commander and changed his fuselage code to his initials, R-D. He exchanged the Squadron Leader insignia for that of the Wing Commander. On the engine cowl, just below the spinner, the original letter 'W' remained.





Bf 109G-2 1/48

#82116

ProfiPACK
edition

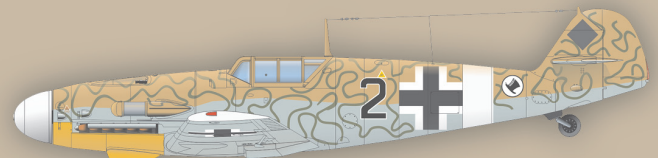
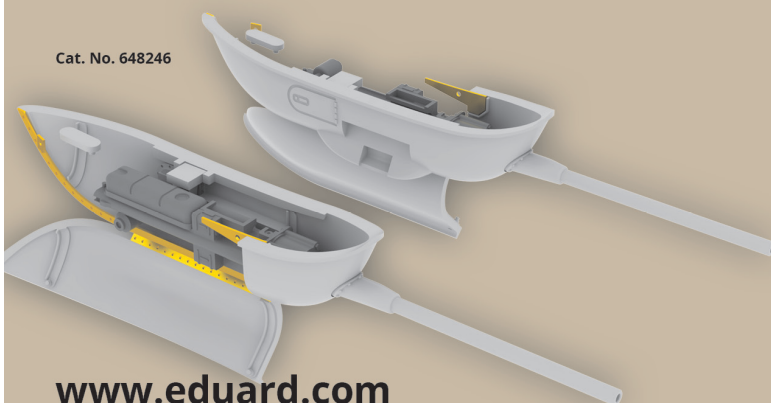


FEBRUARY 2017

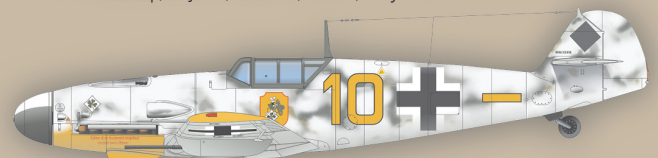
RECOMMENDED:

- 48913 Bf 109G-2 upgrade set 1/48 Eduard (PE-Set)
- 49095 Seatbelts Luftwaffe WWII fighters STEEL (PE-Set)
- 648246 Bf 109 cannon pods 1/48 Eduard (Brassin)
- 648247 Bf 109G exhaust stacks 1/48 Eduard (Brassin)
- 648255 Bf 109G-6 propeller 1/48 Eduard (Brassin)
- 648257 Bf 109G-2/4 radio compartment 1/48 Eduard (Brassin)
- 648265 Bf 109G external fuel tanks 1/48 Eduard (Brassin)
- 648295 Bf 109G-2 wheels 1/48 Eduard (Brassin)
- 648309 Bf 109G undercarriage legs BRONZE 1/48 Eduard (Brassin)
- 648310 Bf 109G control surfaces 1/48 Eduard (Brassin)

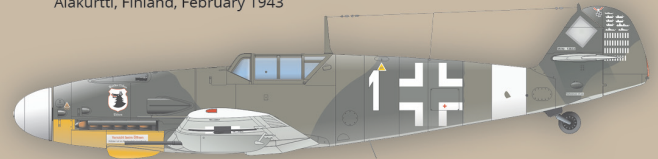
Cat. No. 648246



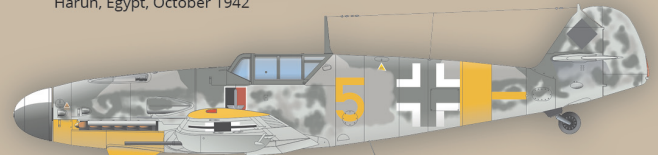
Bf 109G-2/trop, 2./ JG 77, Matmata, Tunisia, early 1943



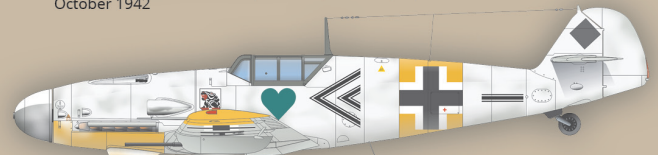
Bf 109G-2/R-6/trop, W. Nr. 13916, Fw. Hans Döbrich, 6./ JG 5, Alakurtti, Finland, February 1943



Bf 109G-2/R6, W. Nr. 13633, Hptm. Wolf-Dieter Huy, 7./ JG 77, Tanyet Harun, Egypt, October 1942



Bf 109G-2/R6, Lt. Walter Krupinski, 6./ JG 52, Maykop, Soviet Union, October 1942



Bf 109G-2/R6 W. Nr. 13949, Mjr. Hans Hahn, II./ JG 54, Rjelbitzy, Soviet Union, January 1943

www.eduard.com

eduard