

P-40E Warhawk

eduard

1/48 Scale Plastic Model Kit

WEEKEND
edition



item # 84207

Although not the best fighter aircraft of its time, the Curtiss P-40 line played a significant role in the air operations of the Allies in the Pacific, Mediterranean and Africa theaters of operations. Limited by its engine with one-stage compressor, the P-40 was always a fighter for lower altitudes.

Of all the aircraft lines manufactured by Curtiss, none was more famous than the Curtiss Hawk fighters. From the initial PW-8 of 1924 through the Hawk III, which ceased production in 1938, Curtiss built more than 700 Hawk biplanes in 16 different models for the U.S. Army alone. A more modern monoplane Hawk came along in 1935. In response to an Air Corps design competition in the fall of 1934 for a new aircraft that would usher in the modern era of single-seat military fighters, Curtiss produced the Hawk 75, which the Army designated the P-36. Chief designer Donovan R. Berlin created „stretch“ in the 75's airframe that would allow it to accommodate high-horsepower engines that were not yet developed. Specifically, he wanted to provide an adequate wingspan and area to ensure combat effectiveness over 25,000 feet. Though the P-36 exhibited excellent flying characteristics, its top speed barely topped 300 miles per hour. The Army considered this speed acceptable in 1937, but by the following year, the P-36 lagged the latest European fighters, particularly the British Spitfire I and German Bf 109E, by at least 50 mph. Curtiss decided to mate the 75 to the new Allison V-1710, a liquid-cooled V-12, to produce the Hawk 81, which the U.S. Army designated the P-40. Though the plane offered only modest performance improvements over the P-36, the Army issued a record-setting contract to Curtiss on April 26, 1939, for 524 P-40s at a cost of nearly 13 million dollars. Again, foreign customers came calling Curtiss. France was first to order the export version of the P-40, tagged the Tomahawk by Curtiss, and Great Britain soon followed suit.

From the long nose to the short one

Curtiss built 525 Hawk 81s in three versions for the U.S. Army, the P-40, P-40B and P-40C. Only a few of these saw combat in Hawaii, the Philippines and Iceland early in the war. More than twice as many export Hawk 81 Tomahawks were built. These 1,181 aircraft fought extensively with the British Commonwealth air forces in North Africa, the American Volunteer Group of Chinese Air Force in Burma and China; and with the Red Air Force on the Eastern Front.

The Hawk 81 was a commercial success for Curtiss, but the plane was underpowered. The output of the 1,090-horsepower Allison V-1710-33 engine, with its single-stage supercharger, was insufficient to propel the airframe to its maximum capabilities for speed and service ceiling, so Allison designers went to work on the problem.

The redesign of the V-1710 had major implications for Curtiss, because the new engine, with its shorter overall length and raised thrust line, did not conform to the nose contours of the Hawk 81. Curtiss designers took this opportunity to draw up an entirely new fuselage and the resulting plane got designation Hawk 87. The U.S. Army designated it P-40D, while the Royal Air Force gave it new name Kittyhawk.

The Hawk 87 incorporated a number of improvements over the Hawk 81. The fuselage was not only six inches shorter but also slightly shallower,

top to bottom. Up front, the nose guns were eliminated, and a deeper cowling with a larger opening held the coolant and oil radiators under the engine. To improve visibility for the pilot, the cockpit opening was deeper with a larger sliding canopy and an enlarged windshield with flat, bulletproof glass in the center panel. The rear-view covers behind the cockpit were also bigger. In addition, the airframe was stressed to carry one 500-pound bomb or a drop tank of 52 or 75 gallons under the belly.

The wing and tail designs were relatively unchanged from the Hawk 81. Four .50 caliber machine guns were mounted in large bays in the wings.

The Hawk 87 line was a superior warplane to the Hawk 81, but not by much. As a result of all the changes, the Hawk P-40D's combat gross weight rose to 8,809 pounds. At the same time, the new V-1710-39 engine produced just 60 HP more than its predecessor. Because of it, the P-40D boasted a top speed 350 mph, just 5 mph faster than the previous model. Because the new engine retained a single-stage supercharger, the P-40D's service ceiling and peak performance altitude of 15,000 feet were virtually unchanged from the P-40C.

The base for further improvements

The US Army placed an order with Curtiss for 23 P-40Ds in 1940 and took delivery of the new planes in mid-July 1941. Great Britain, meanwhile, took over a French order with modifications to RAF specifications. Designated Kittyhawk I, these aircraft began rolling of the assembly lines in August 1941. The first 20 were four-gun equivalents of the P-40D, but the rest of the Kittyhawk Is in the 560-plane order mounted six guns, like the U.S. Army's 820 P-40Es that were built alongside. Deliveries of both continued through the end of the year, by which time the United States had entered the war.

The kit: P-40E Warhawk

After the P-40D got six machine guns in the wing, the designation was changed to the P-40E, which became the first mass-produced P-40 version and the base for further development. The production was divided into five blocks, which differed only in details. There was reinforcement of the fuselage joint of the windshield frame used in the late production P-40Es, also the doors for radio equipment compartment on the port side of the fuselage got the reinforcement in the form of triangular elements. A very similar version, the P-40E-1 called Kittyhawk IA, had beefed up wing structure to allow it to carry more external stores. The export aircraft for Allies, the Kittyhawks, varied in several details. There were different gunsights, oxygen and radio equipment and the planes also lacked the circular blue formation lights on both sides of the fuselage. Curtiss built 1,500 P-40Es, and about one-third of them went to the Allies under Lend Lease.

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 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
ODRÍZNOUTREVERSE SIDE
OTOČITAPPLY EDUARD MASK
AND PAINT
POUŽIT EDUARD MASK
NABARVIT**PLEASE CHECK THE LATEST VERSION OF THE INSTRUCTIONS ON www.eduard.com**

PARTS



DÍLY



TEILE

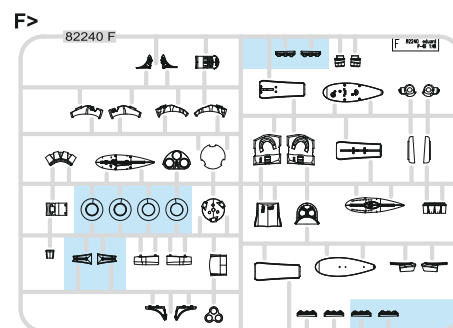
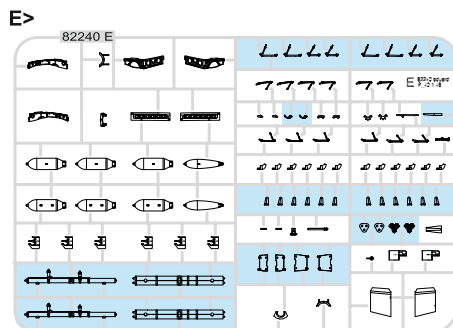
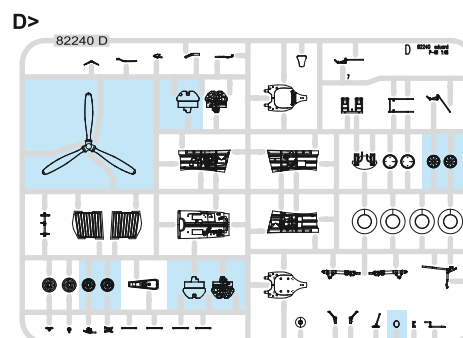
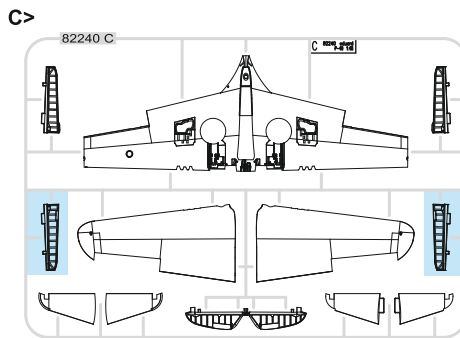
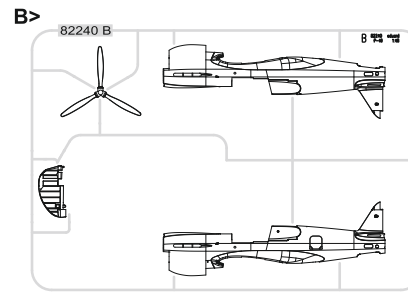
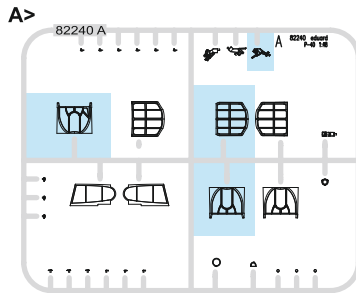


PIÈCES



部品

PLASTIC PARTS



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

COLOURS



BARVY



FARBEN



PEINTURE

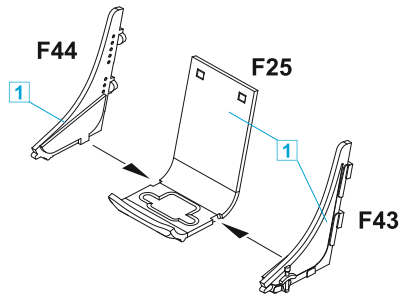


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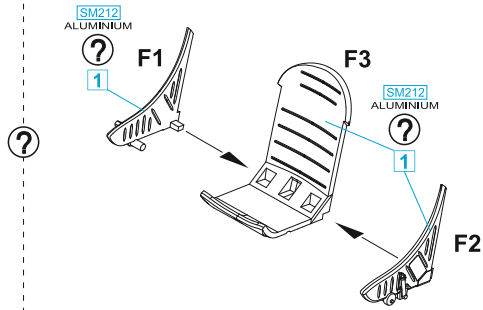
| GSI Creos (GUNZE) | | |
|-------------------|----------|--------------|
| AQUEOUS | Mr.COLOR | |
| H4 | C4 | YELLOW |
| H8 | C8 | SILVER |
| H12 | C33 | FLAT BLACK |
| H44 | C51 | FLESH |
| H52 | C12 | OLIVE DRAB |
| H53 | C13 | NEUTRAL GRAY |
| H71 | C21 | MIDDLE STONE |
| H72 | C369 | DARK EARTH |
| H76 | C61 | BURNT IRON |
| H77 | C137 | TIRE BLACK |
| H80 | C54 | KHAKI GREEN |
| H84 | C42 | MAHOGANY |
| H90 | C47 | CLEAR RED |

| GSI Creos (GUNZE) | | |
|-------------------------|----------|---------------------|
| AQUEOUS | Mr.COLOR | |
| H93 | C50 | CLEAR BLUE |
| H94 | C138 | CLEAR GREEN |
| H327 | C327 | RED |
| H328 | C328 | BLUE |
| H329 | C329 | YELLOW |
| H330 | C361 | DARK GREEN |
| | C352 | CHROMATE YELLOW |
| | C370 | AZURE BLUE |
| Mr.COLOR SUPER METALLIC | | |
| | SM204 | SUPER STAINLESS |
| | SM206 | SUPER CHROME SILVER |
| | SM212 | ALUMINIUM |

A MARKINGS C, D

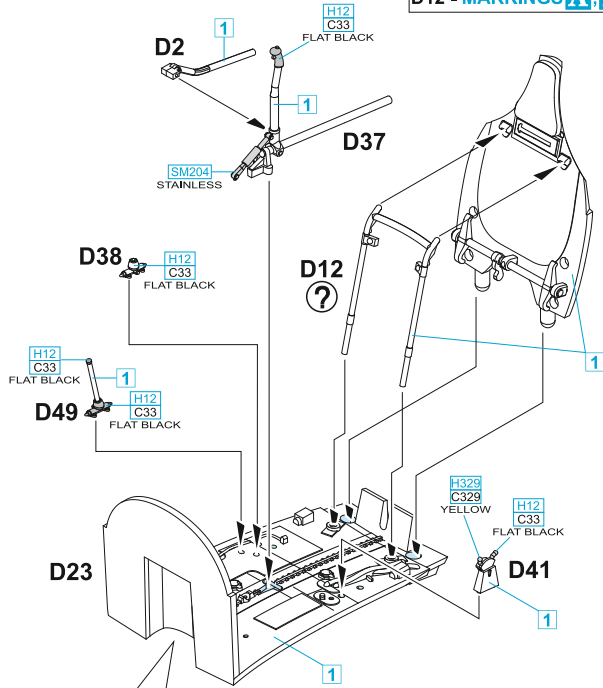


MARKINGS A, B

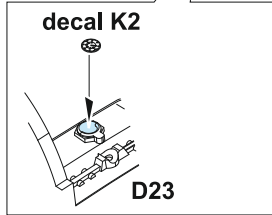
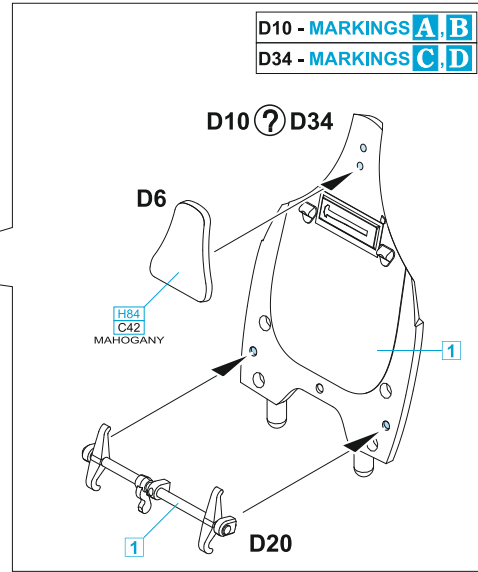


1 = 80% C352 CHROMATE YELLOW + 20% C33 FLAT BLACK

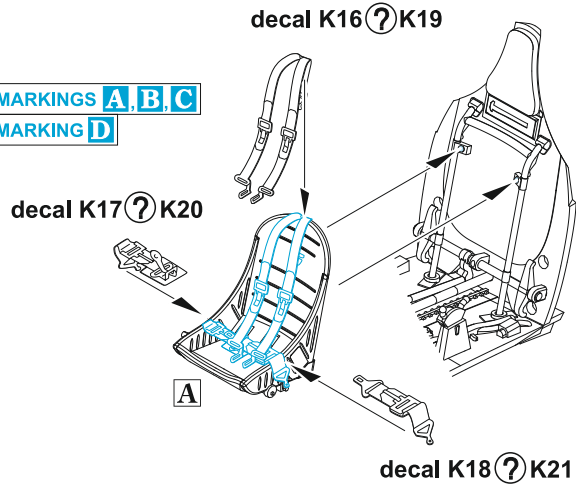
D12 - MARKINGS A, B ONLY



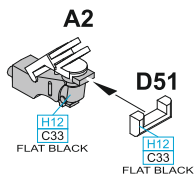
D10 - MARKINGS A, B
D34 - MARKINGS C, D



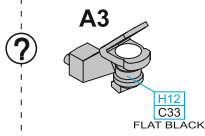
decal K16, K17, K18 - MARKINGS A, B, C
decal K19, K20, K21 - MARKING D



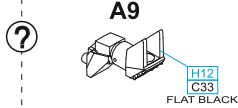
B MARKING A



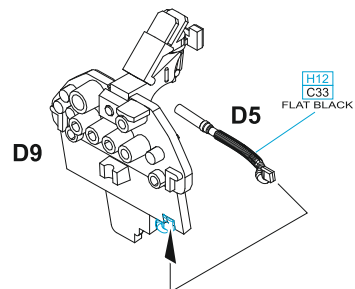
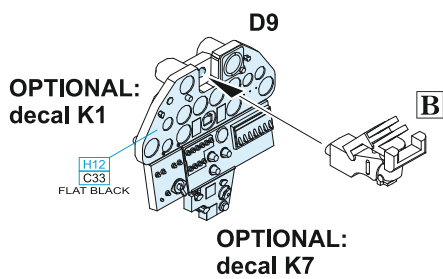
MARKING D

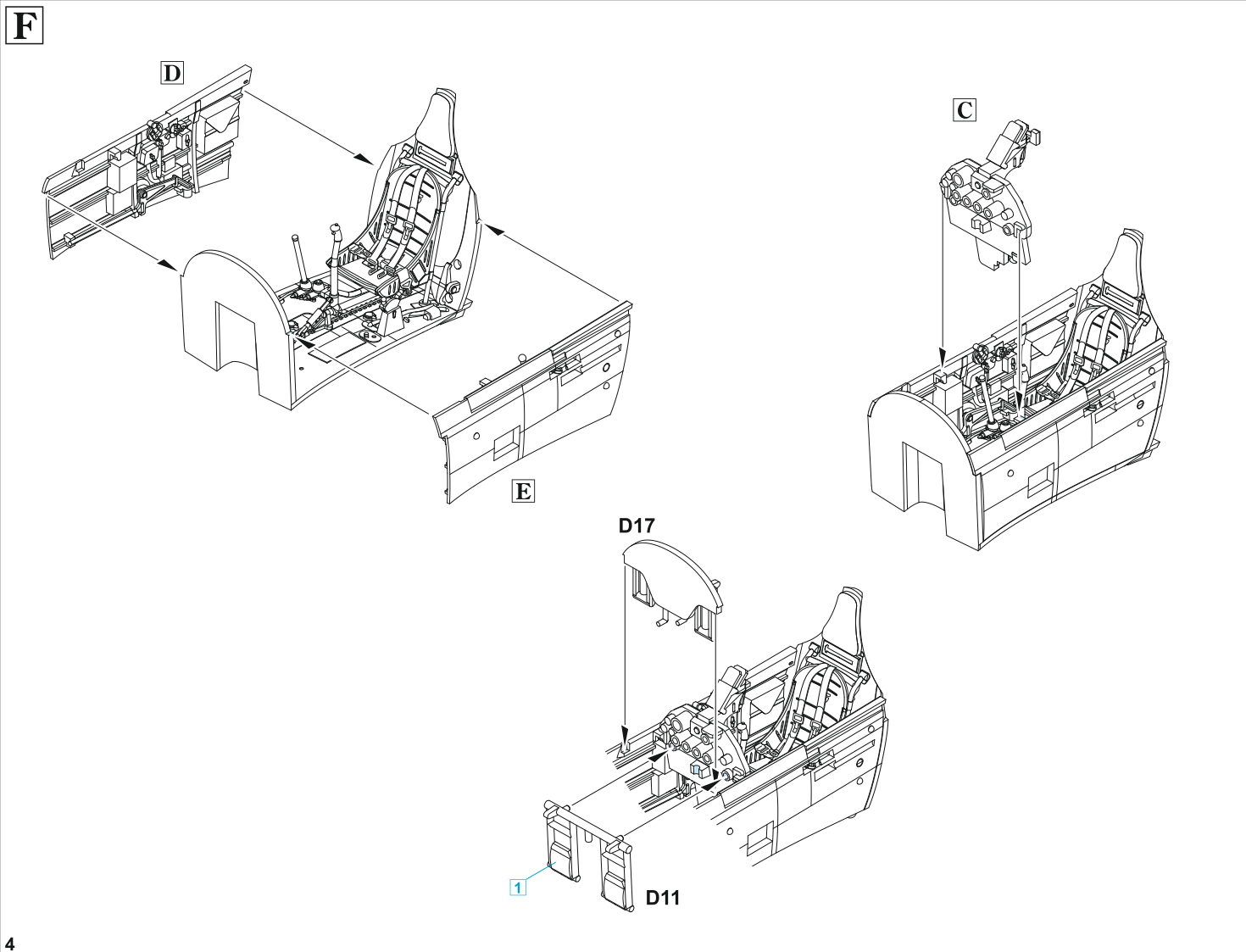
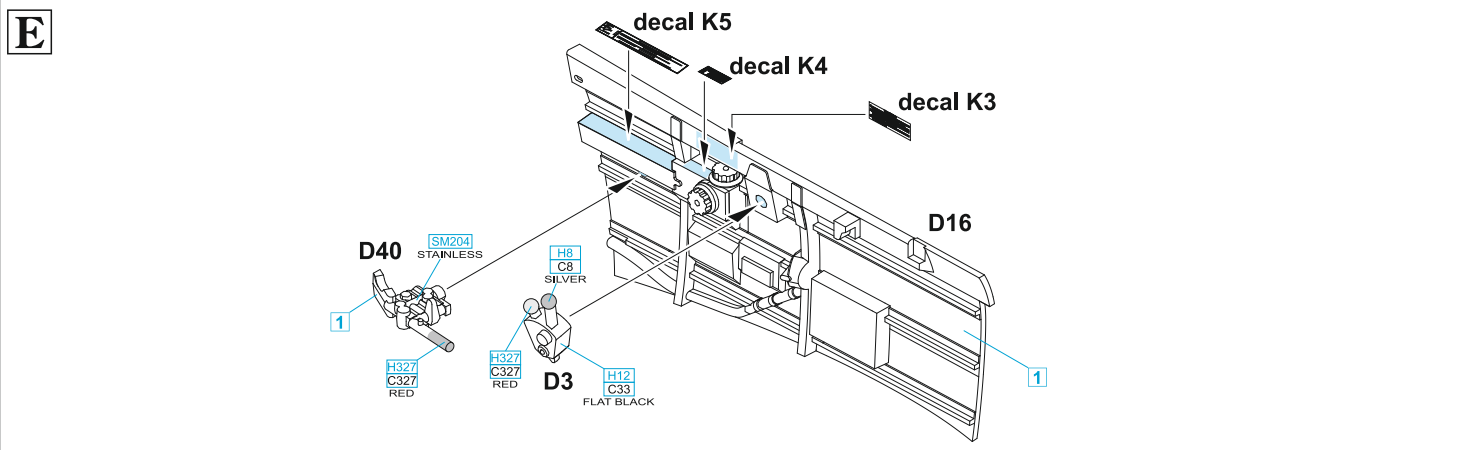
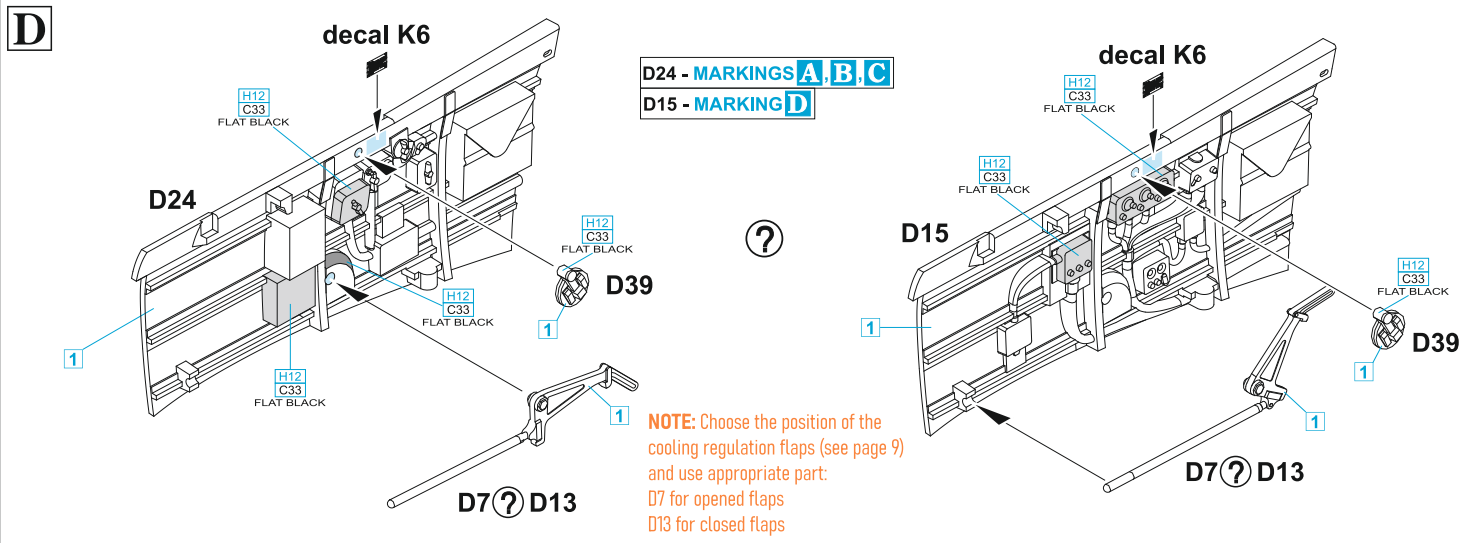


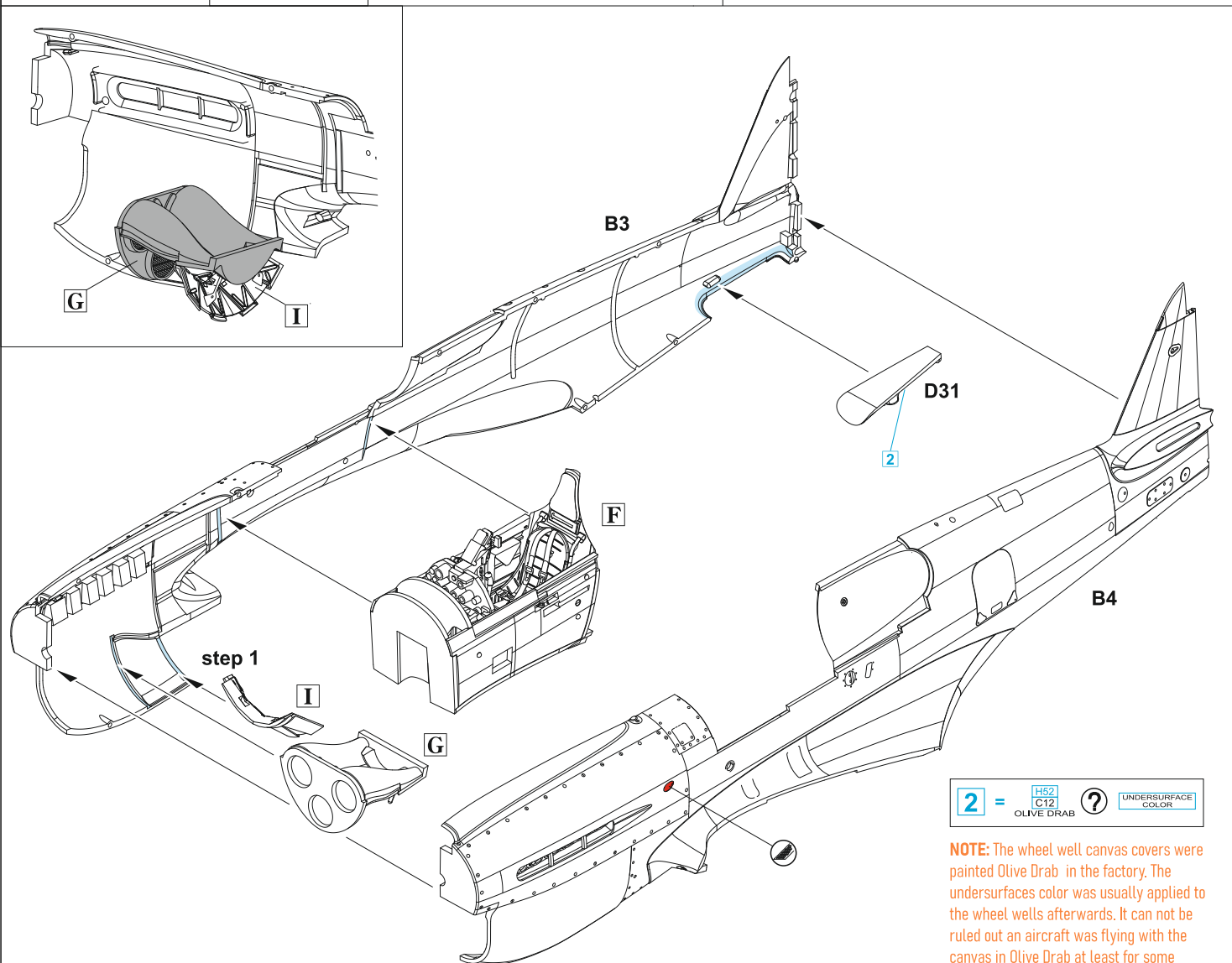
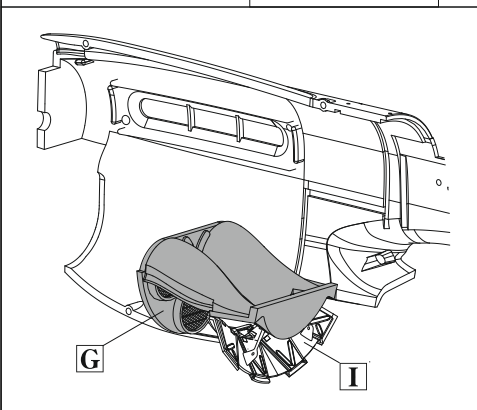
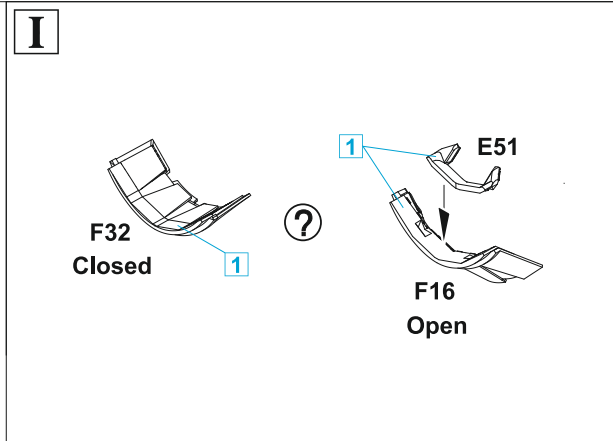
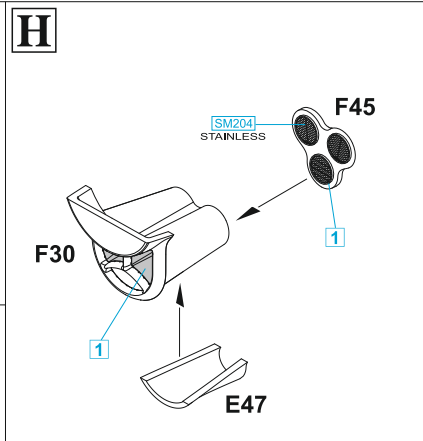
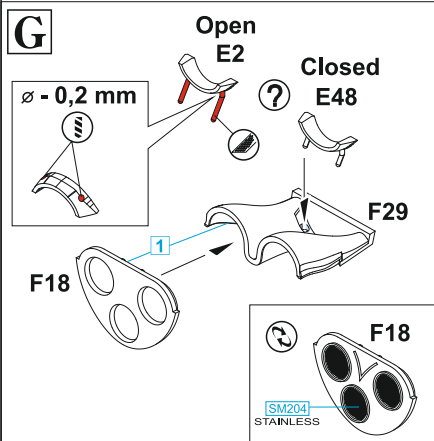
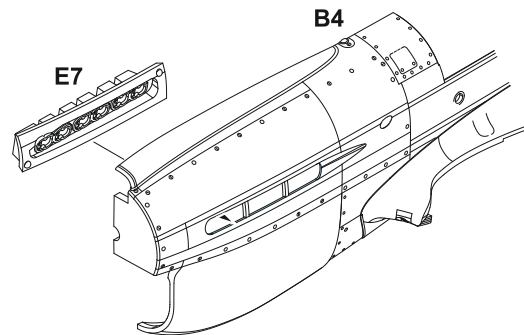
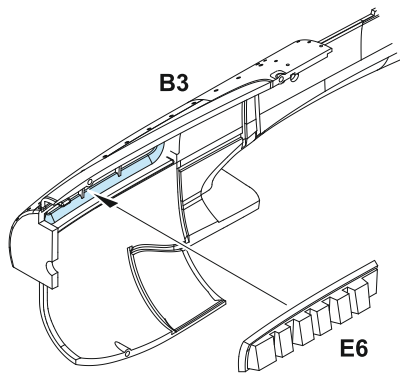
MARKINGS B, C



C

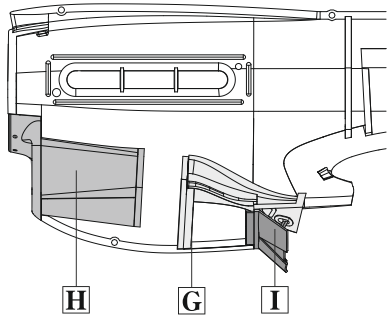




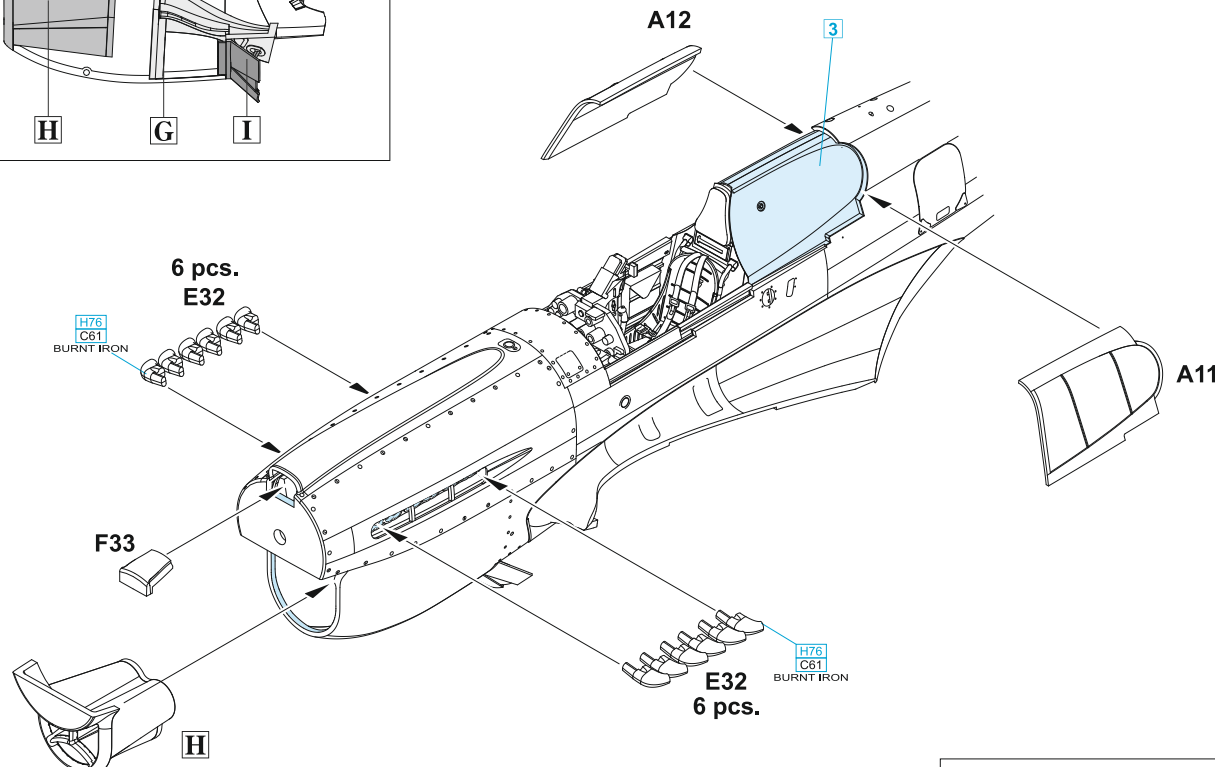


2 = HS2
C12
OLIVE DRAB ? UNDERSURFACE
COLOR

NOTE: The wheel well canvas covers were painted Olive Drab in the factory. The undersurfaces color was usually applied to the wheel wells afterwards. It can not be ruled out an aircraft was flying with the canvas in Olive Drab at least for some period of time.



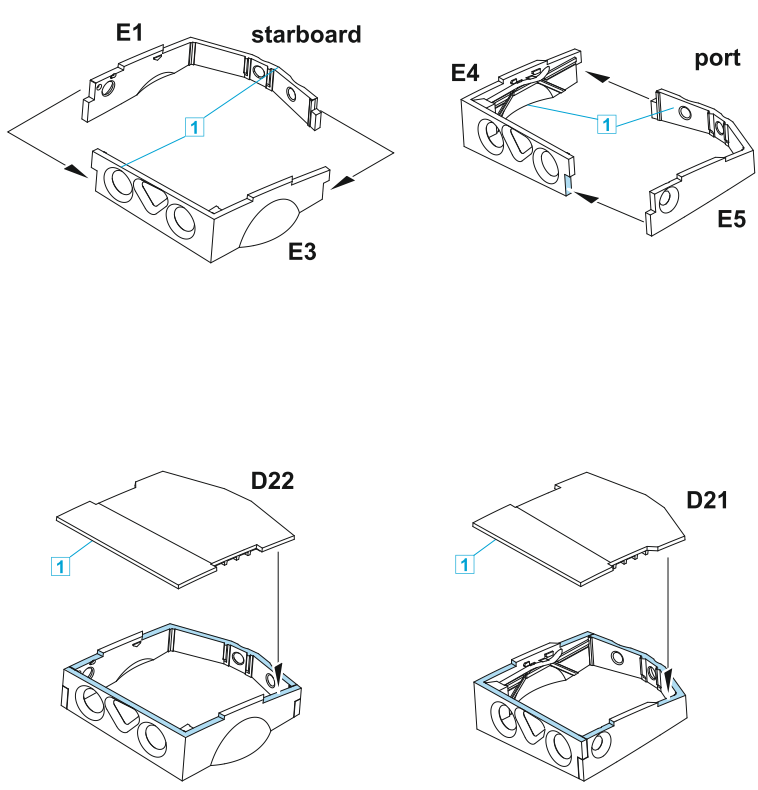
| | |
|--------------|-----------------|
| H52 | - MARKINGS A, B |
| C12 | |
| OLIVE DRAB | |
| H71 | - MARKING D |
| C21 | |
| MIDDLE STONE | |
| H330 | - MARKING C |
| C361 | |
| DARK GREEN | |



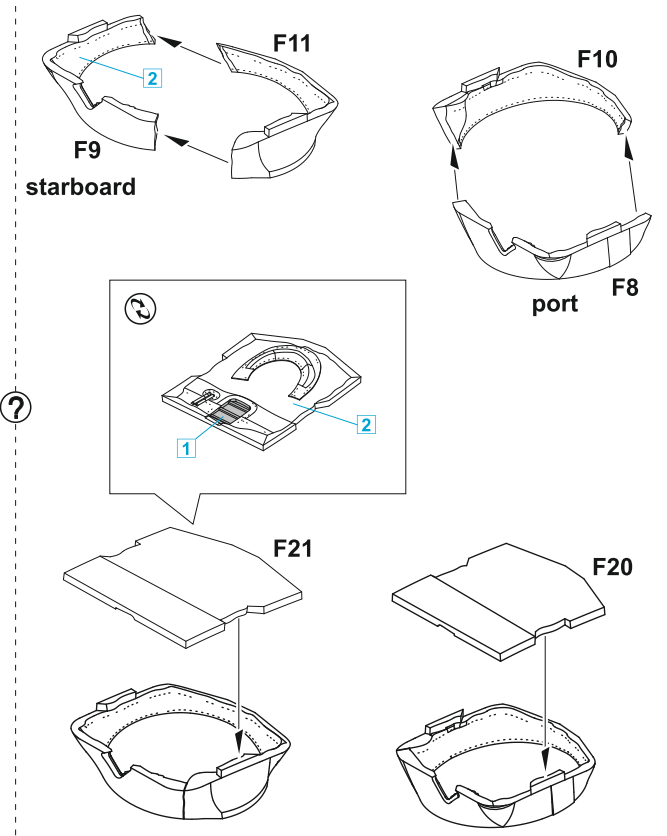
NOTE: The wheel wells were fitted with impregnated canvas tailor-shaped covers to protect the inside of the wing from dirt. It can not be ruled out some aircraft flew without them for some time. They were also removed during maintenance.

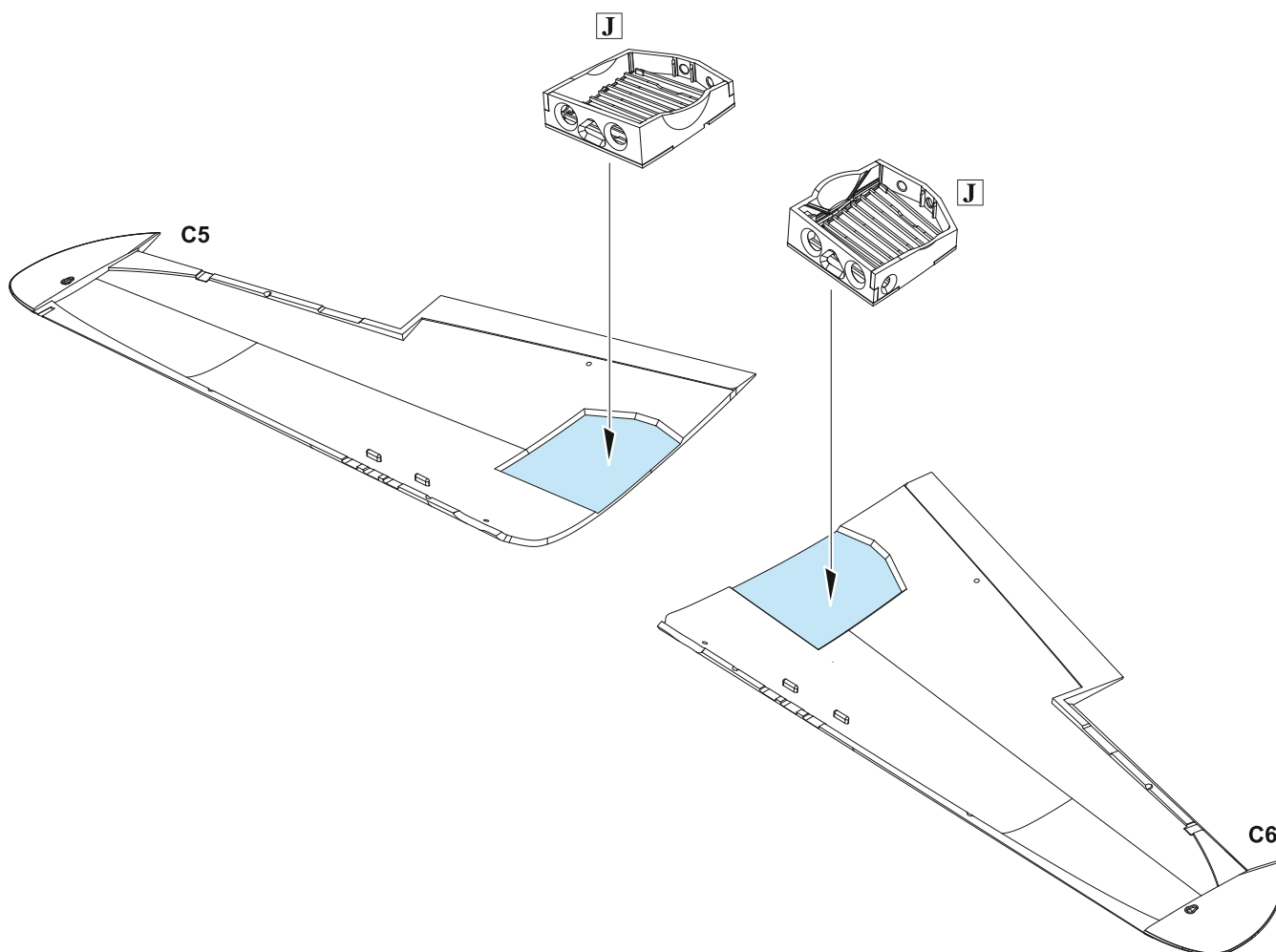
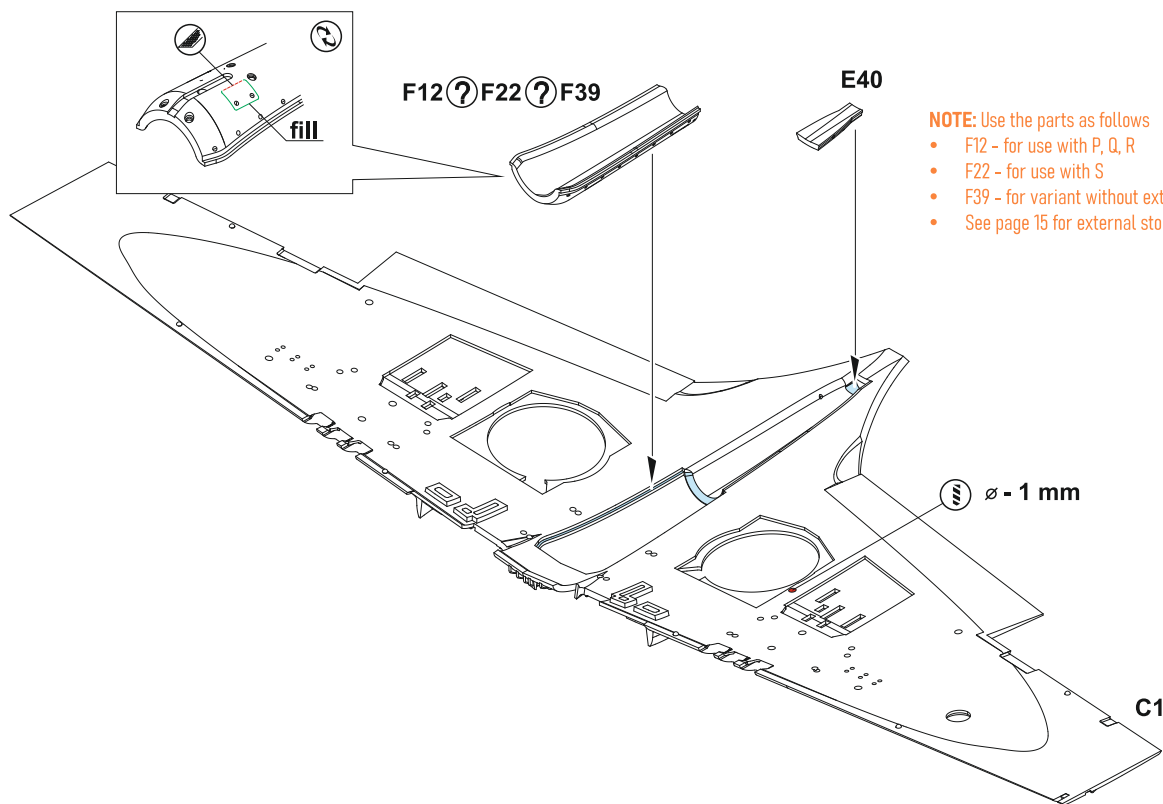
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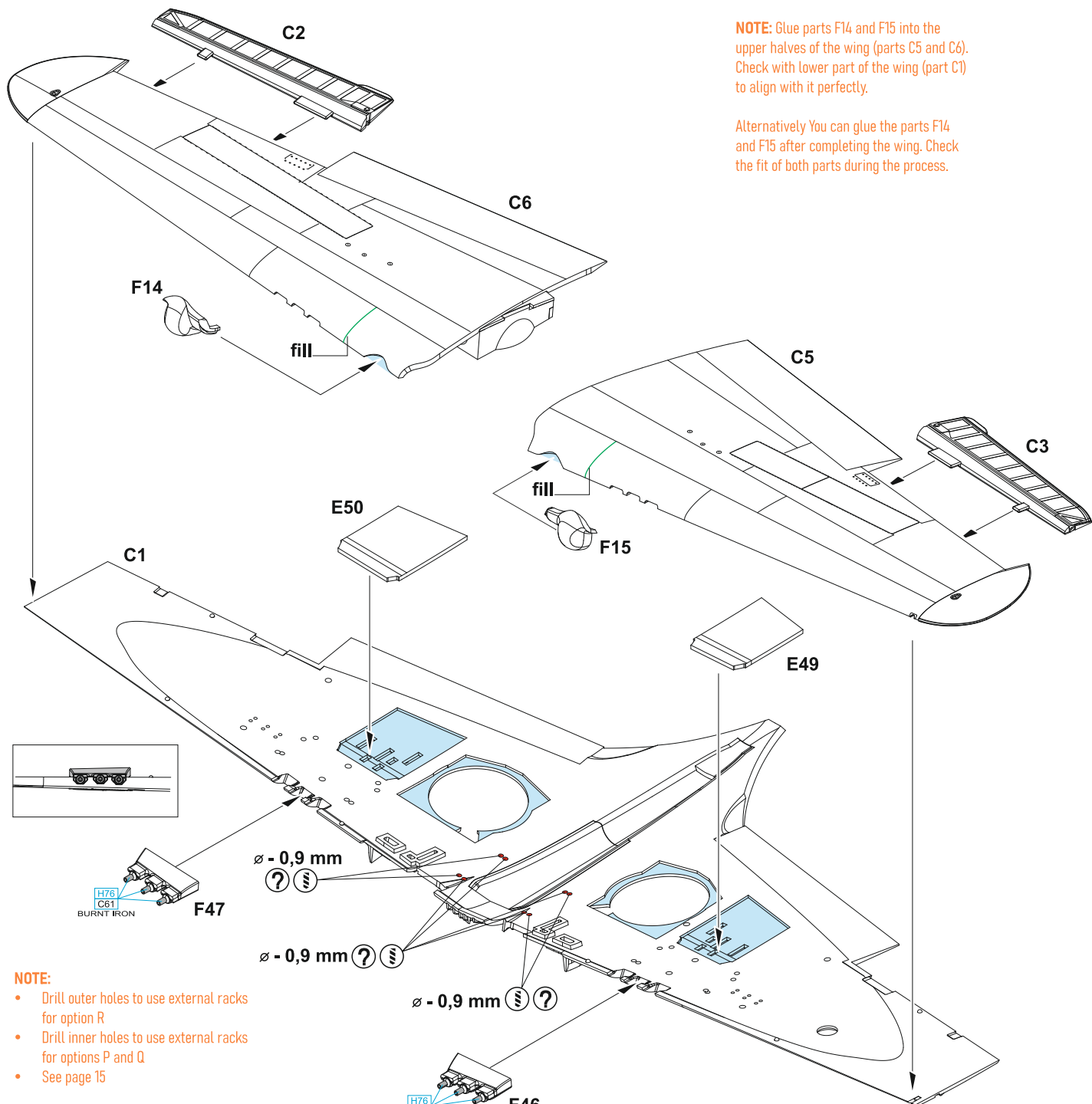
wheel wells without canvas covers



canvas covered wheel wells







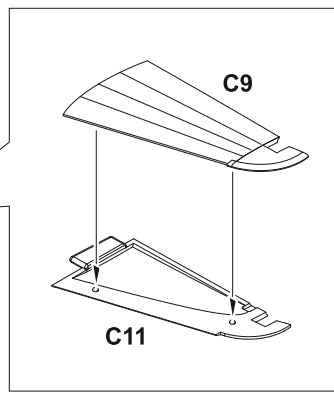
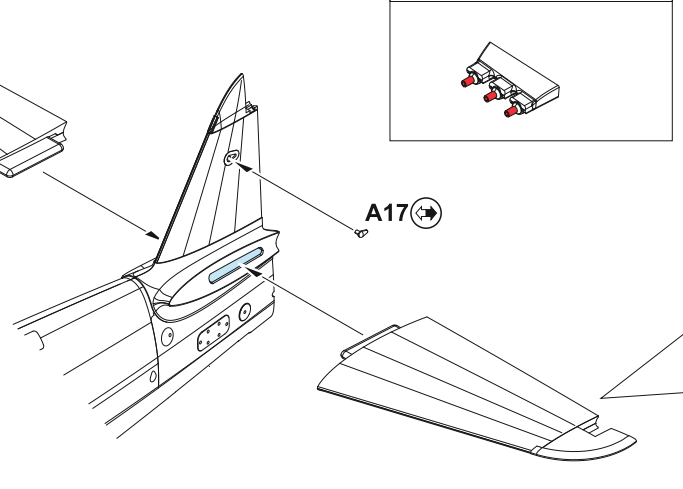
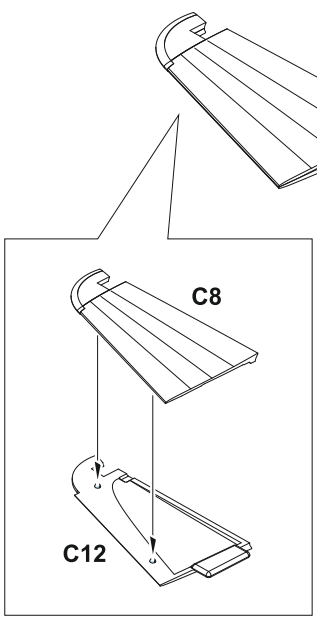
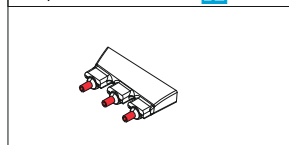
NOTE: Glue parts F14 and F15 into the upper halves of the wing (parts C5 and C6). Check with lower part of the wing (part C1) to align with it perfectly.

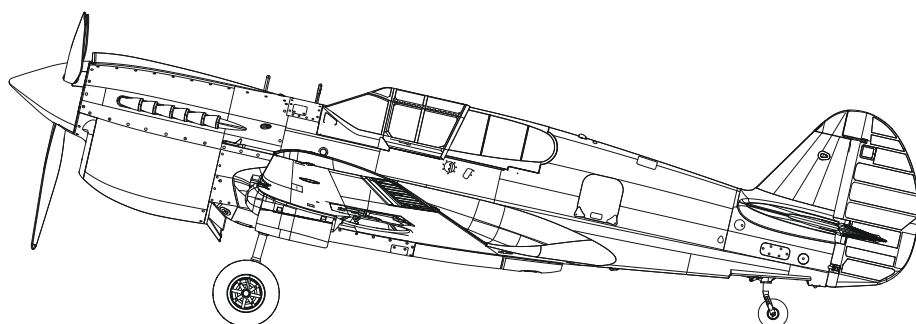
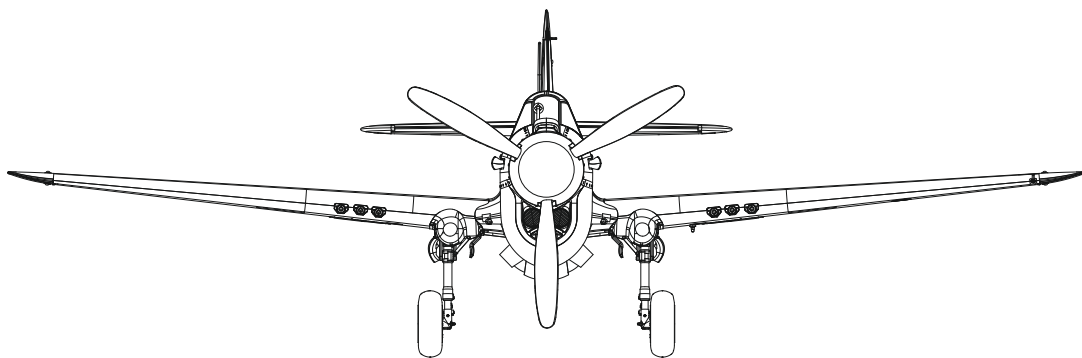
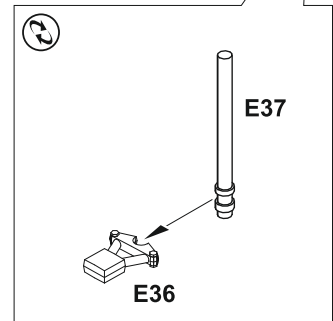
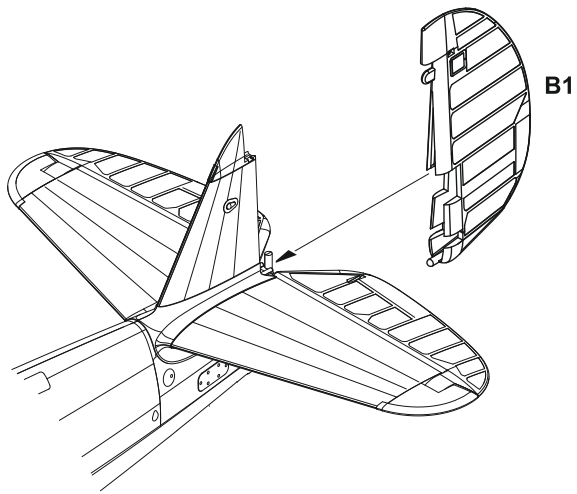
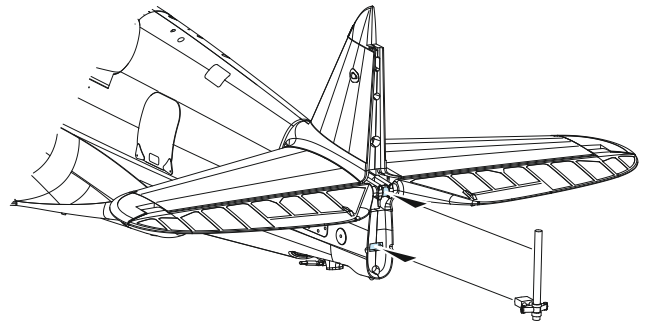
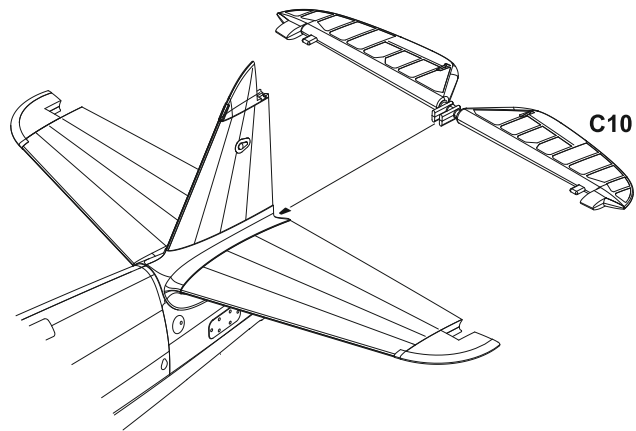
Alternatively You can glue the parts F14 and F15 after completing the wing. Check the fit of both parts during the process.

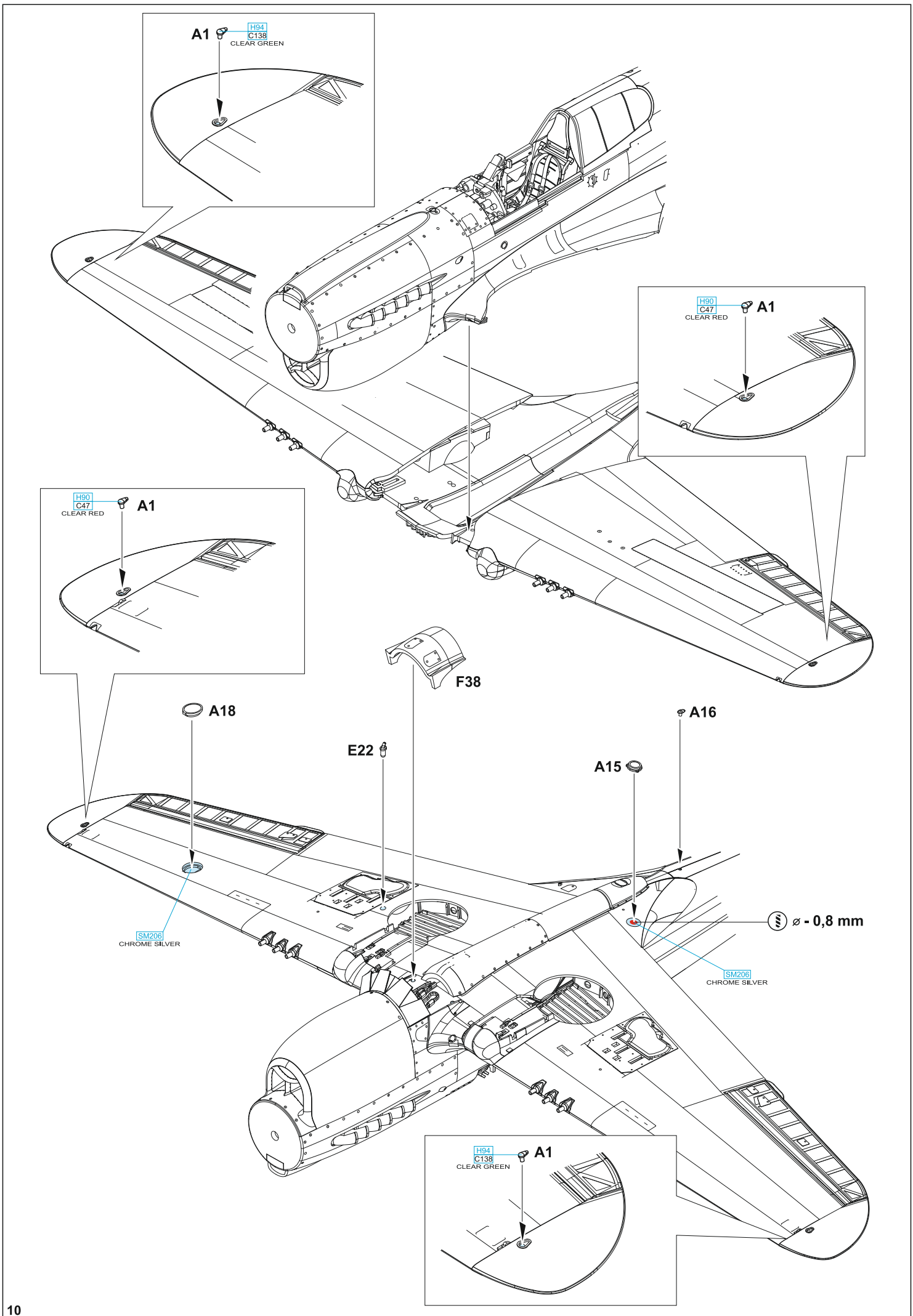
NOTE:

- Drill outer holes to use external racks for option R
- Drill inner holes to use external racks for options P and Q
- See page 15

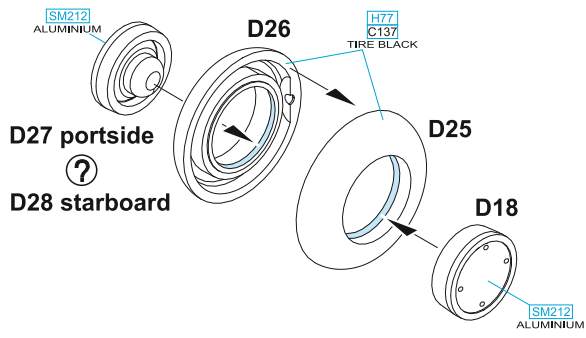
F46, F47 - MARKING **A** ONLY



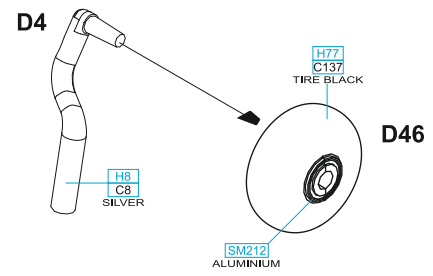




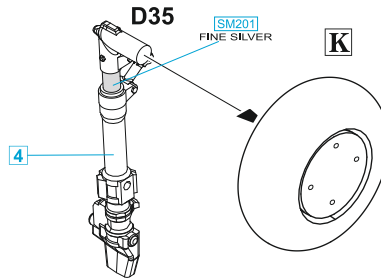
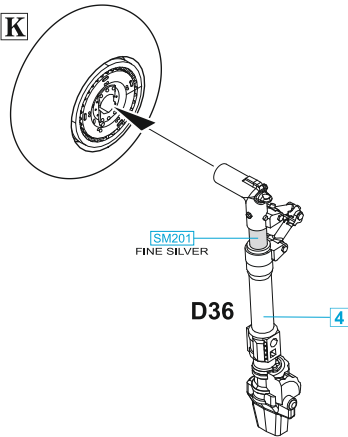
K 2 pcs.



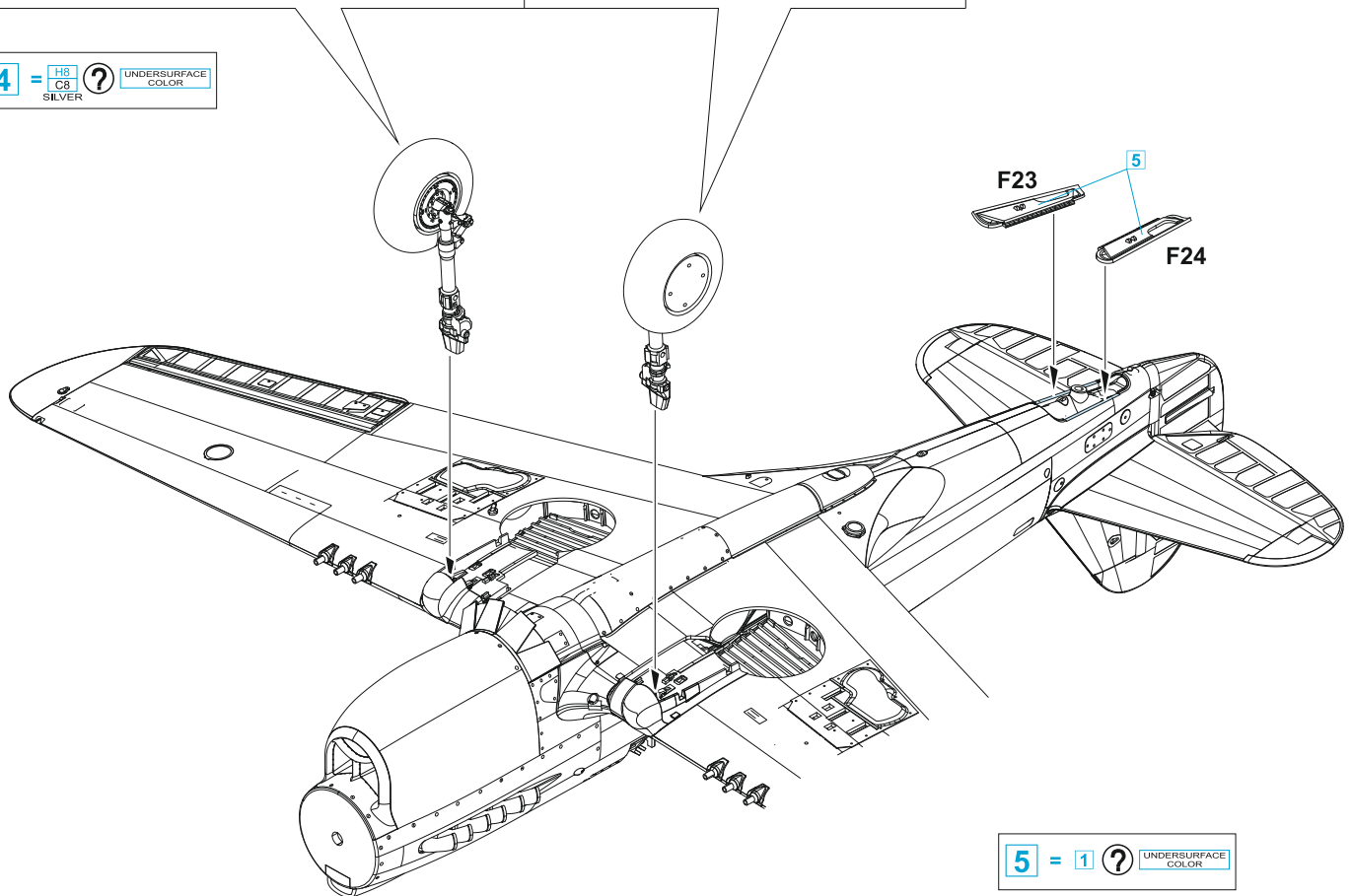
L



K

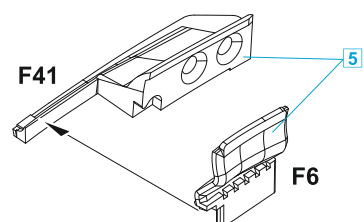
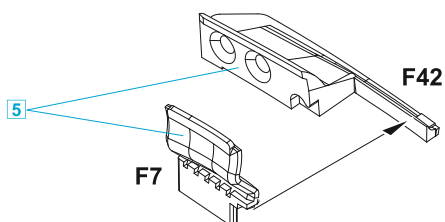


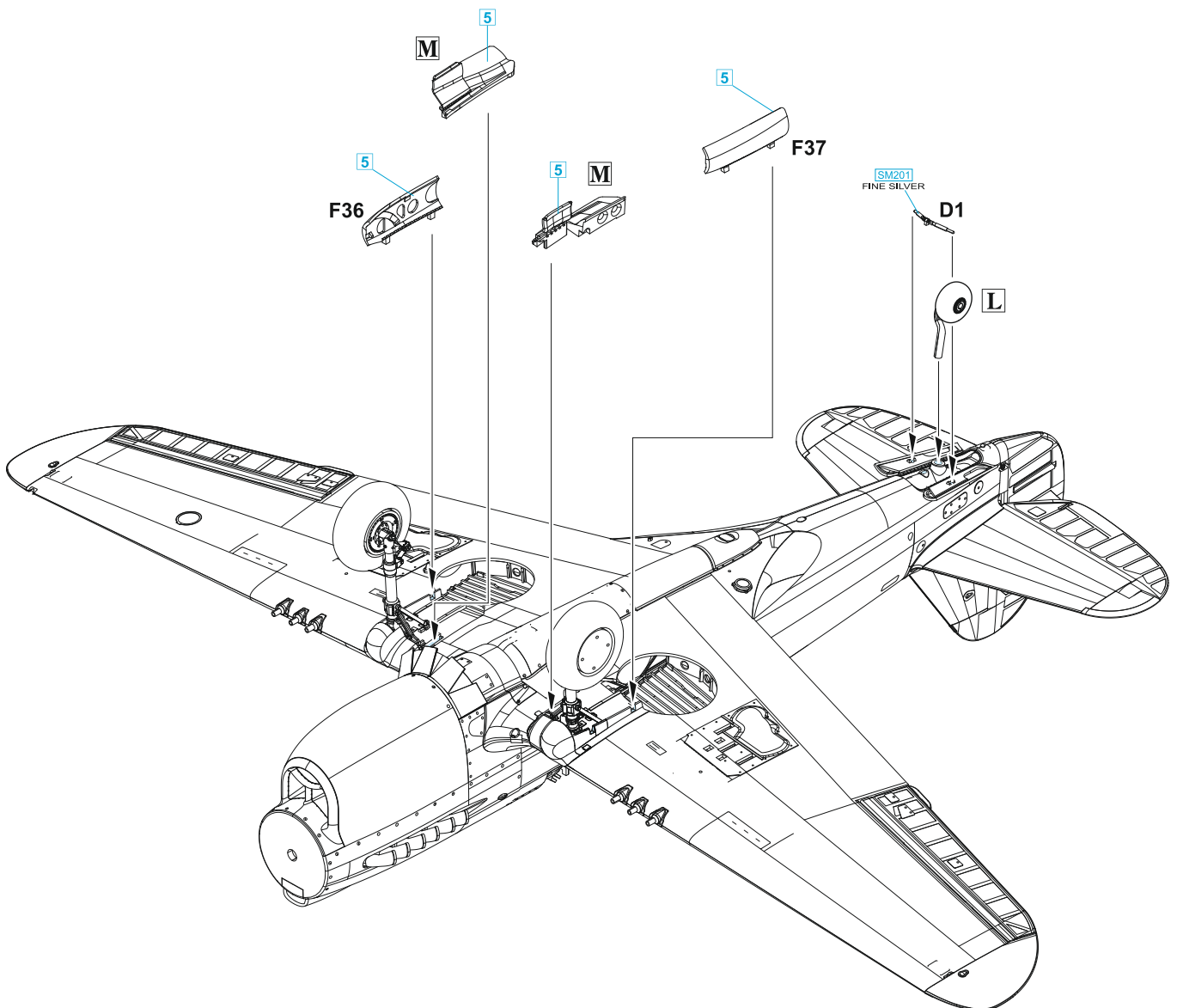
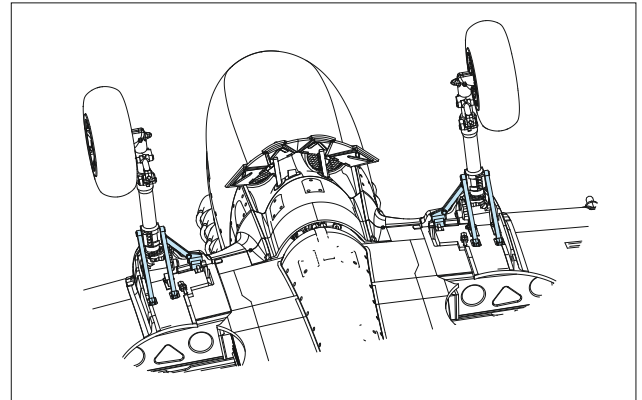
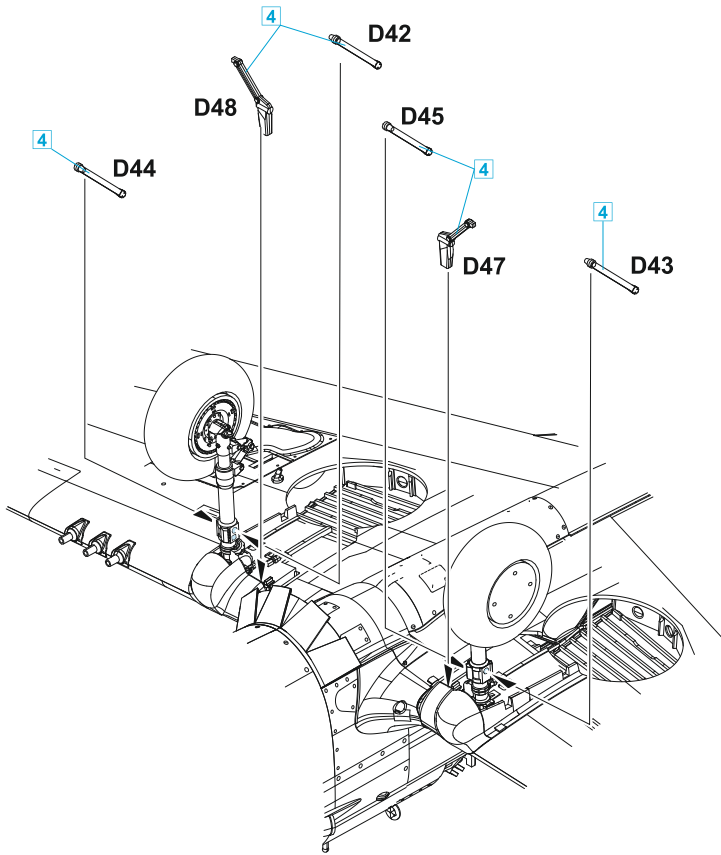
4 = **H8** **C8** SILVER **?** UNDERSURFACE COLOR



5 = **1** **?** UNDERSURFACE COLOR

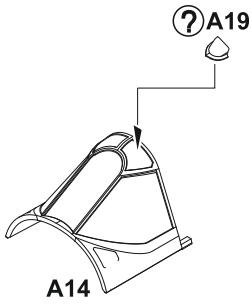
M



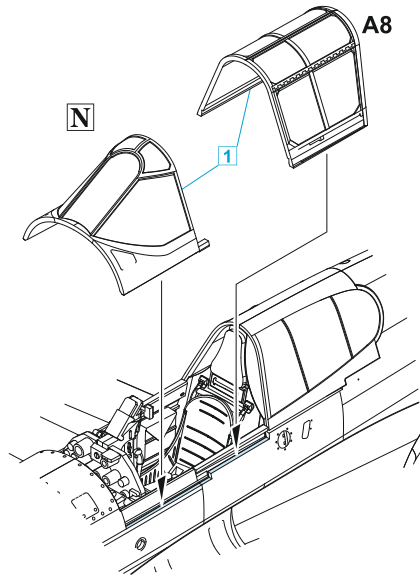


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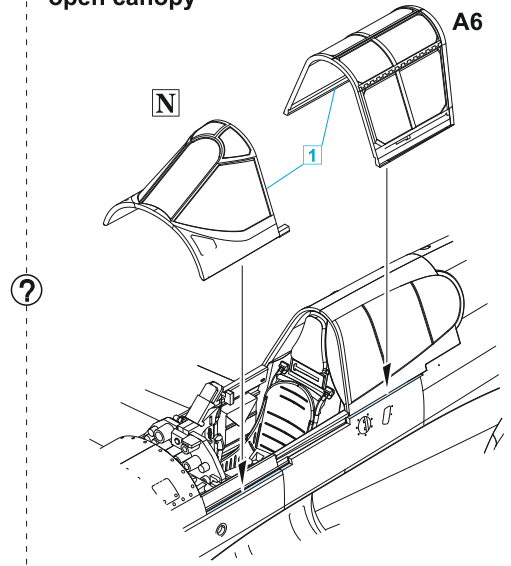
A19 - MARKINGS C, D ONLY



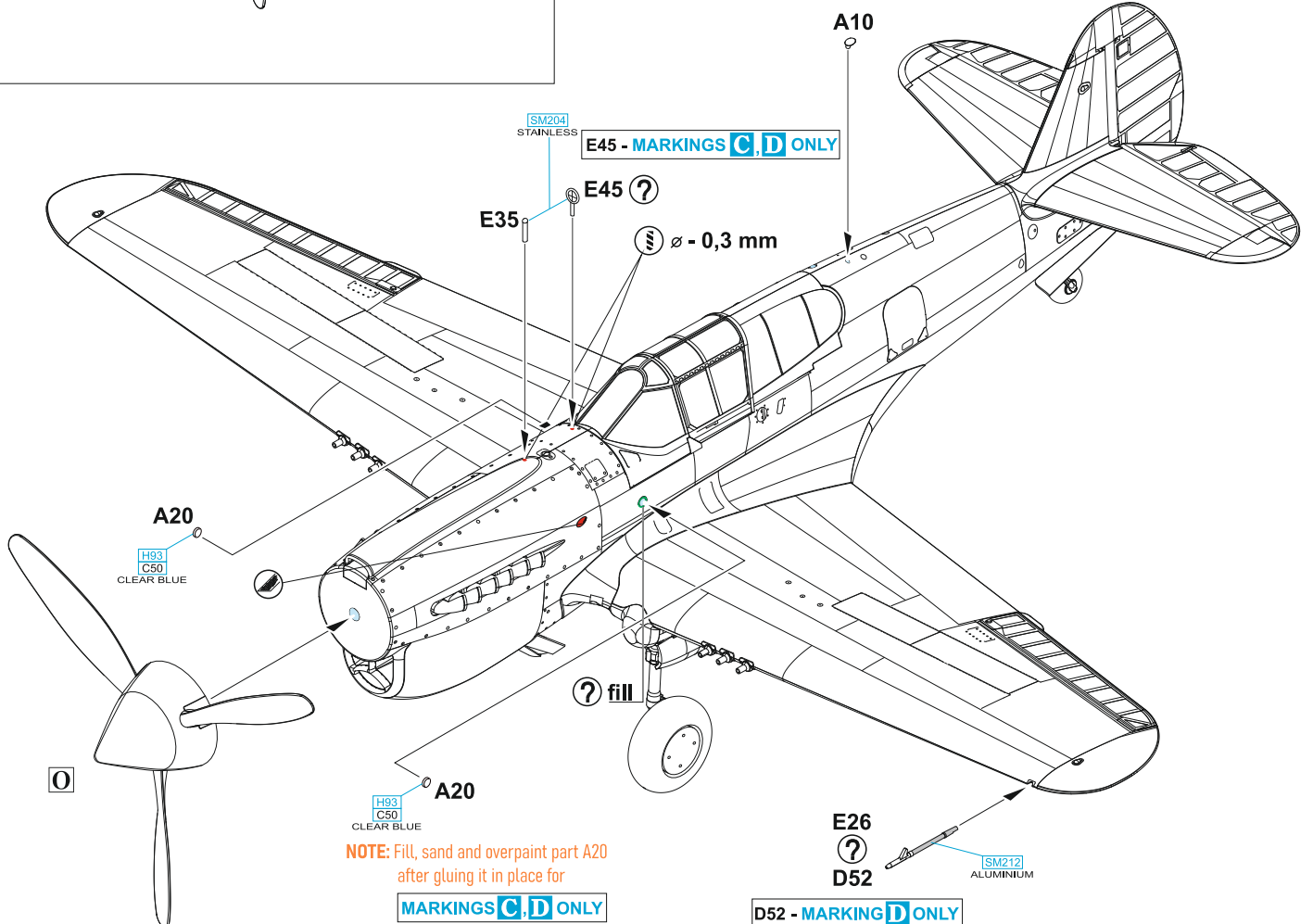
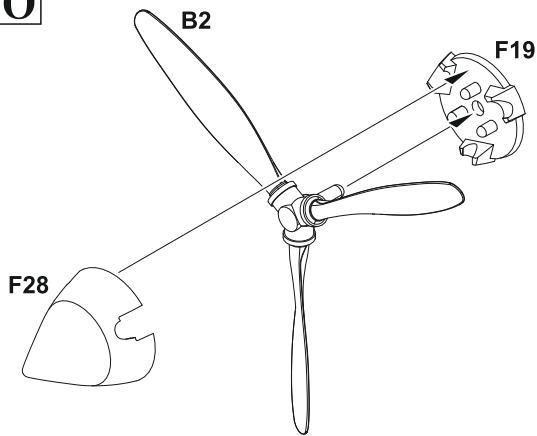
closed canopy



open canopy



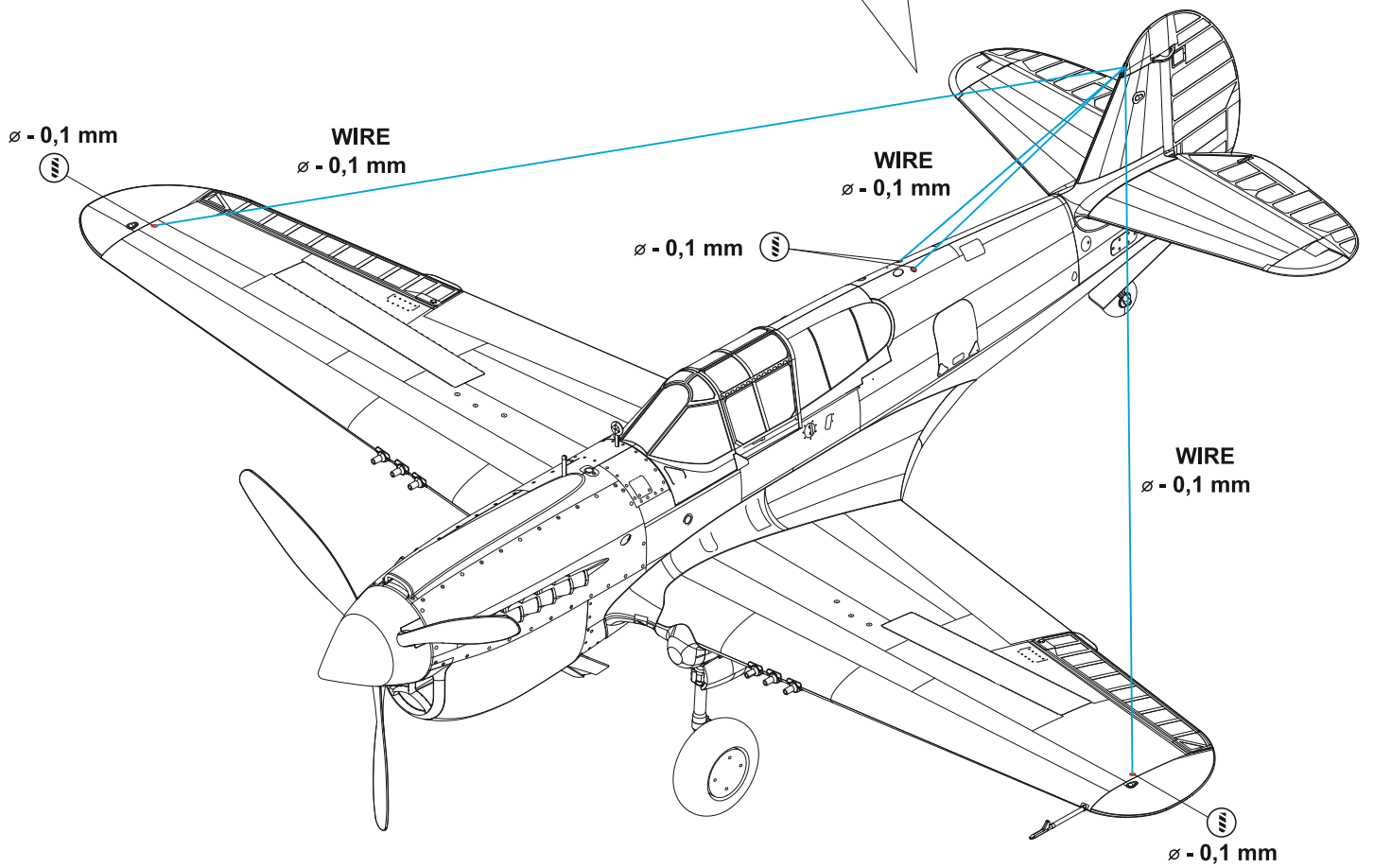
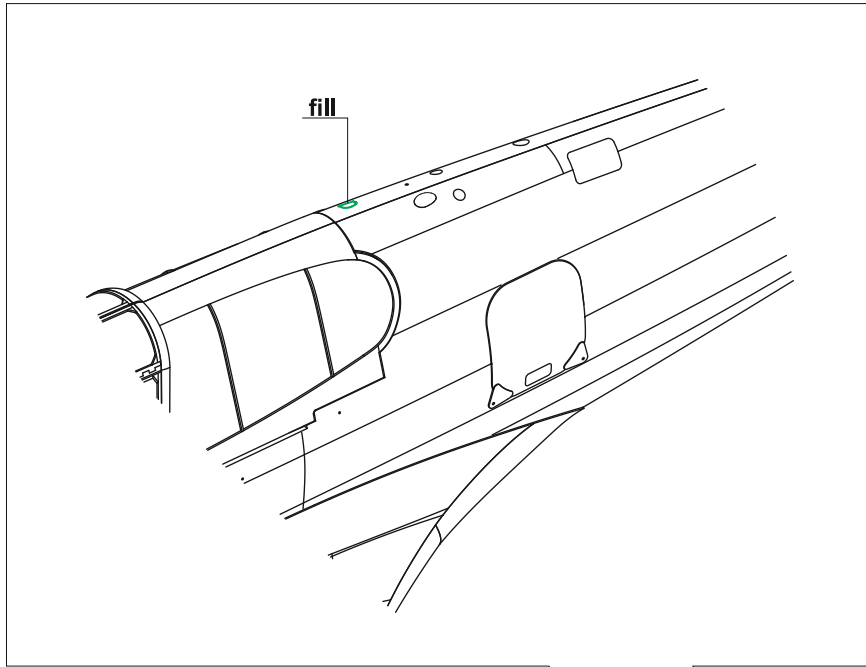
O



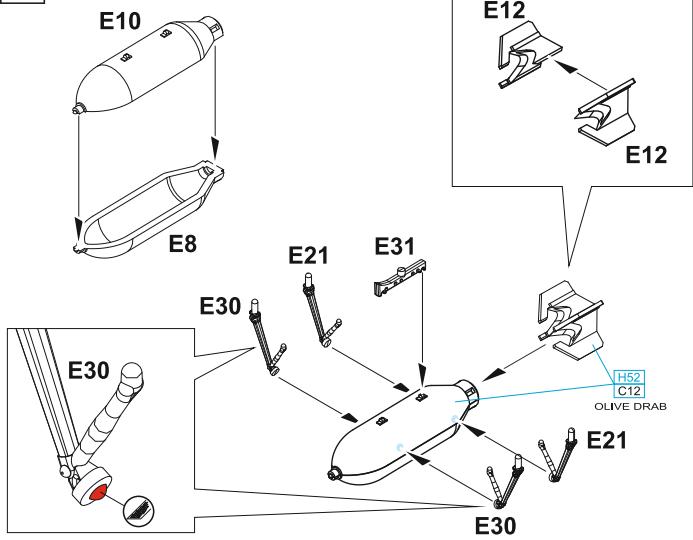
NOTE: Fill, sand and overpaint part A20 after gluing it in place for

MARKINGS C, D ONLY

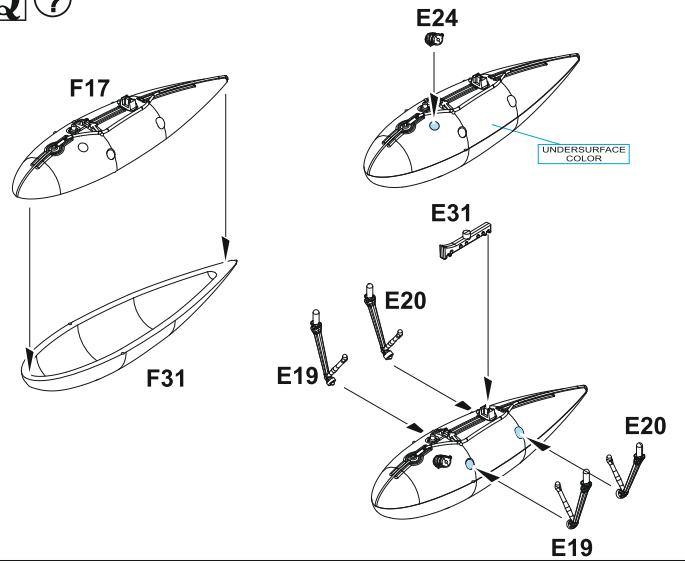
D52 - MARKING D ONLY



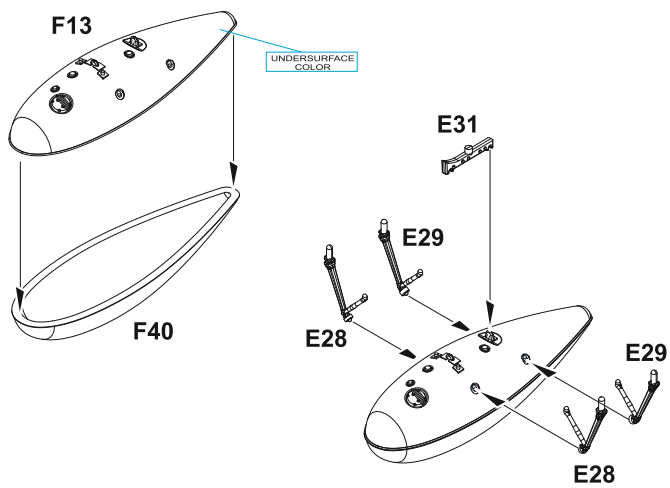
P ?



Q ?

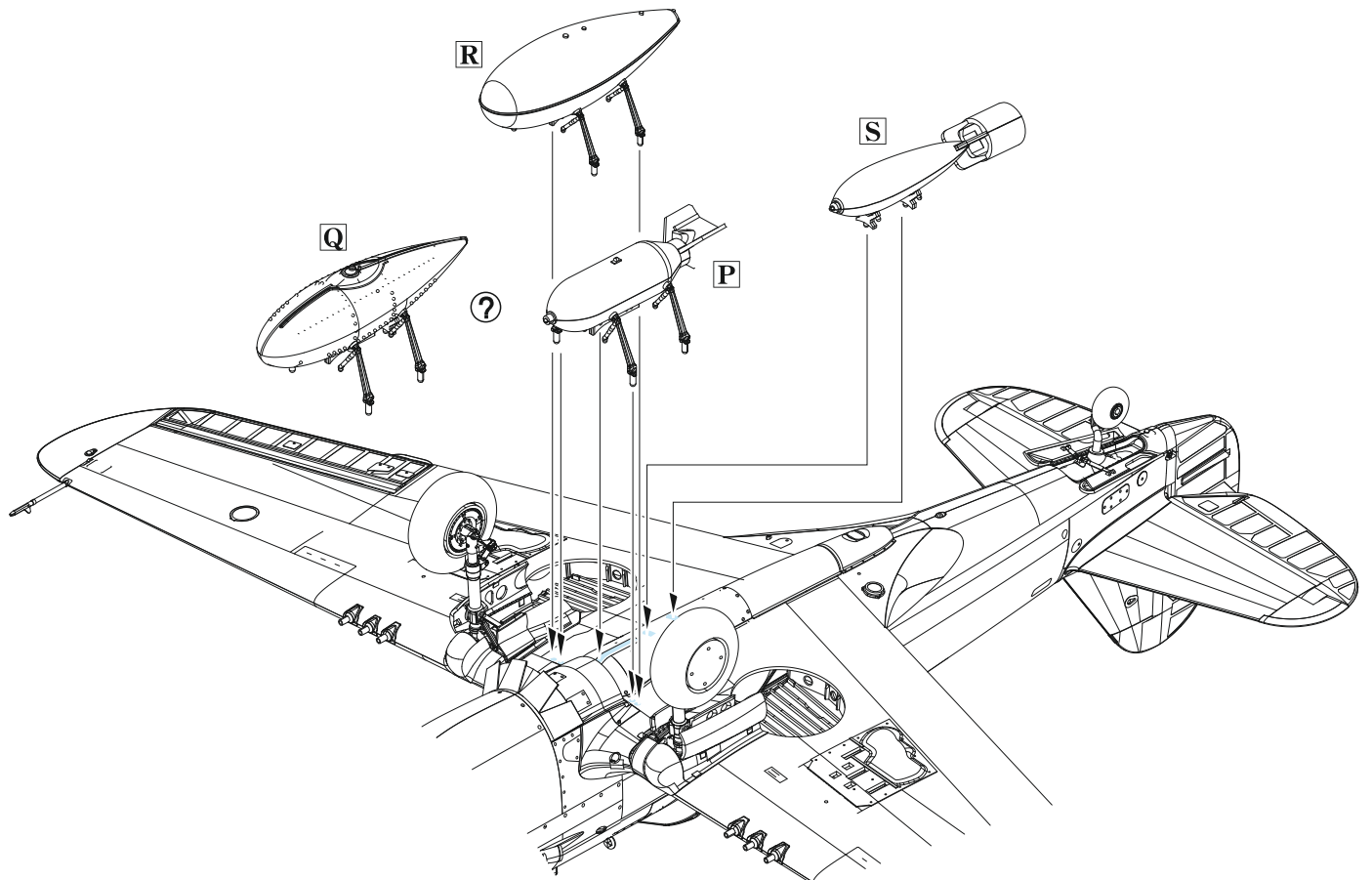
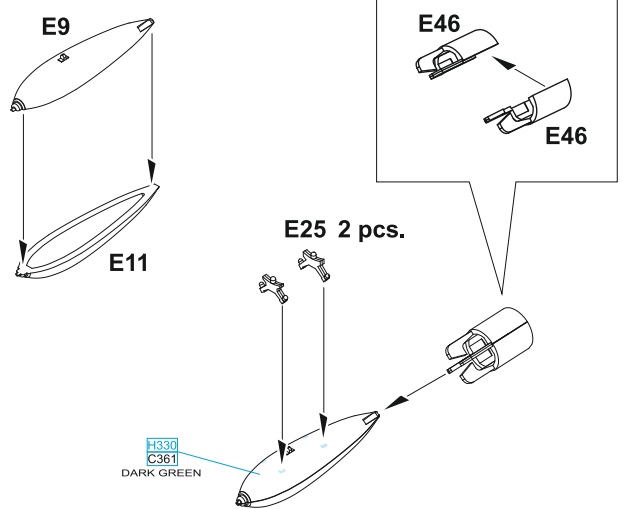


R ?



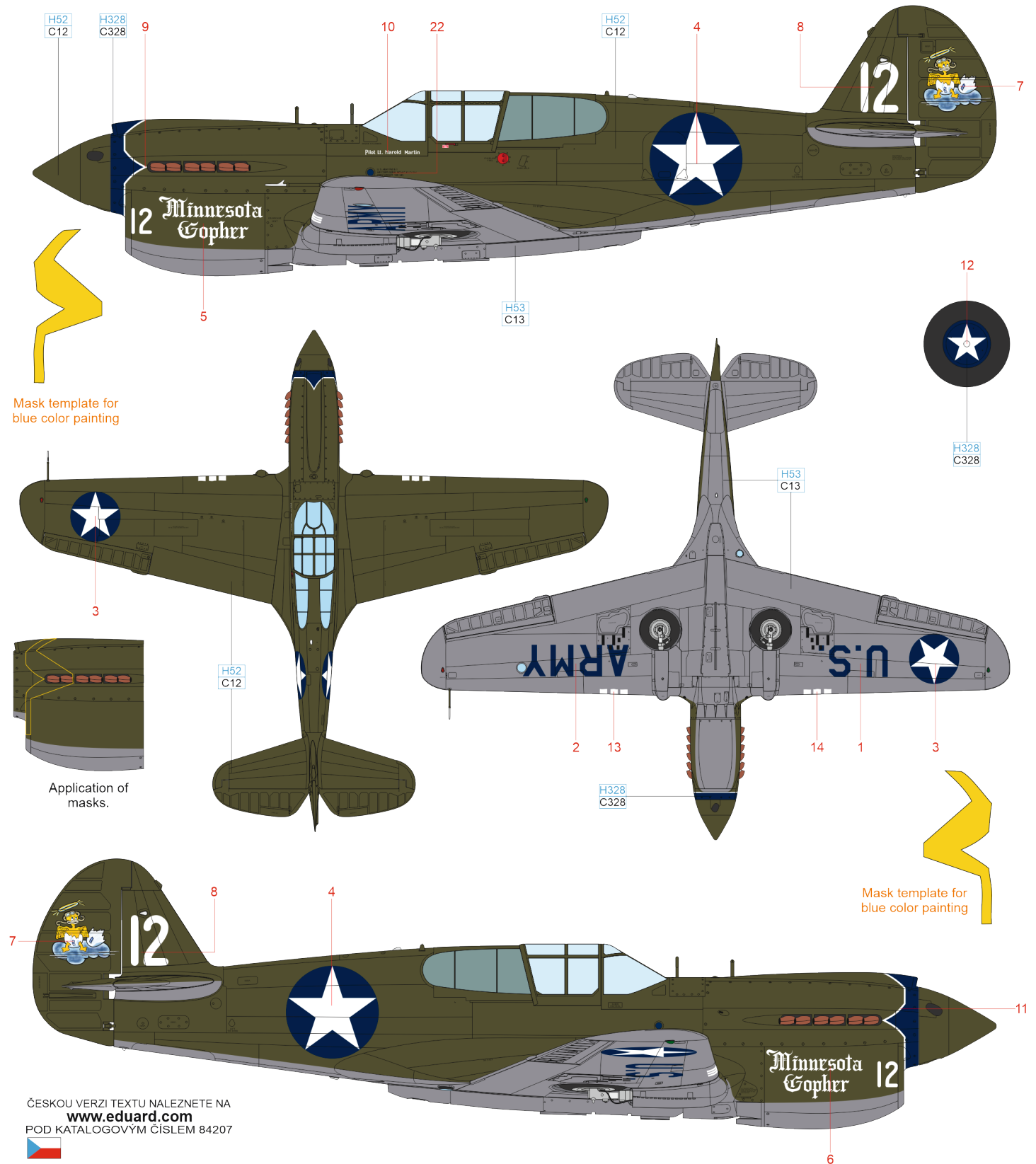
S ?

MARKING D ONLY



A Lt Harold J. Martin, 7th FS, 49th FG, Horn Island, Australia, spring 1942

On March 14, 1942, Lt. Martin achieved his only aerial victory with this aircraft. It happened when, with other members of the 7th FS, he attacked a formation of eight Betty bombers from the 4 Kōkūtai. Martin flew as a member of B Flight, led by 2Lt Bill Reddington. When the American fighters launched their attack on the Japanese bombers, he separated from his flight, approached the three bombers on the left side of the formation and, according to reports, first fired at the entire section and then focused on the Betty flying on the far left. He emptied all his ammunition into it, broke away to the left, and with empty magazines, decided to return to base on Horn Island, which was being strafed by accompanying Zeros after the Japanese Betty's bombs hit the base. Martin managed to avoid combat with them and landed safely at the damaged airfield. Here, during his debriefing, he was severely reprimanded by the squadron commander for leaving formation and engaging in combat on his own. Despite the claims of American pilots, according to Japanese reports, none of the attacking bombers were shot down but some were damaged. The Warhawk named Minnesota Gopher had a picture of a chicken in a flight helmet painted on its tail, which was probably the emblem of one of the 7th FS flight. The aircraft served with the squadron until June 13, 1942, when it crashed on landing and had to be sent to a service unit for a general overhaul, after which it was transferred to the RAAF.



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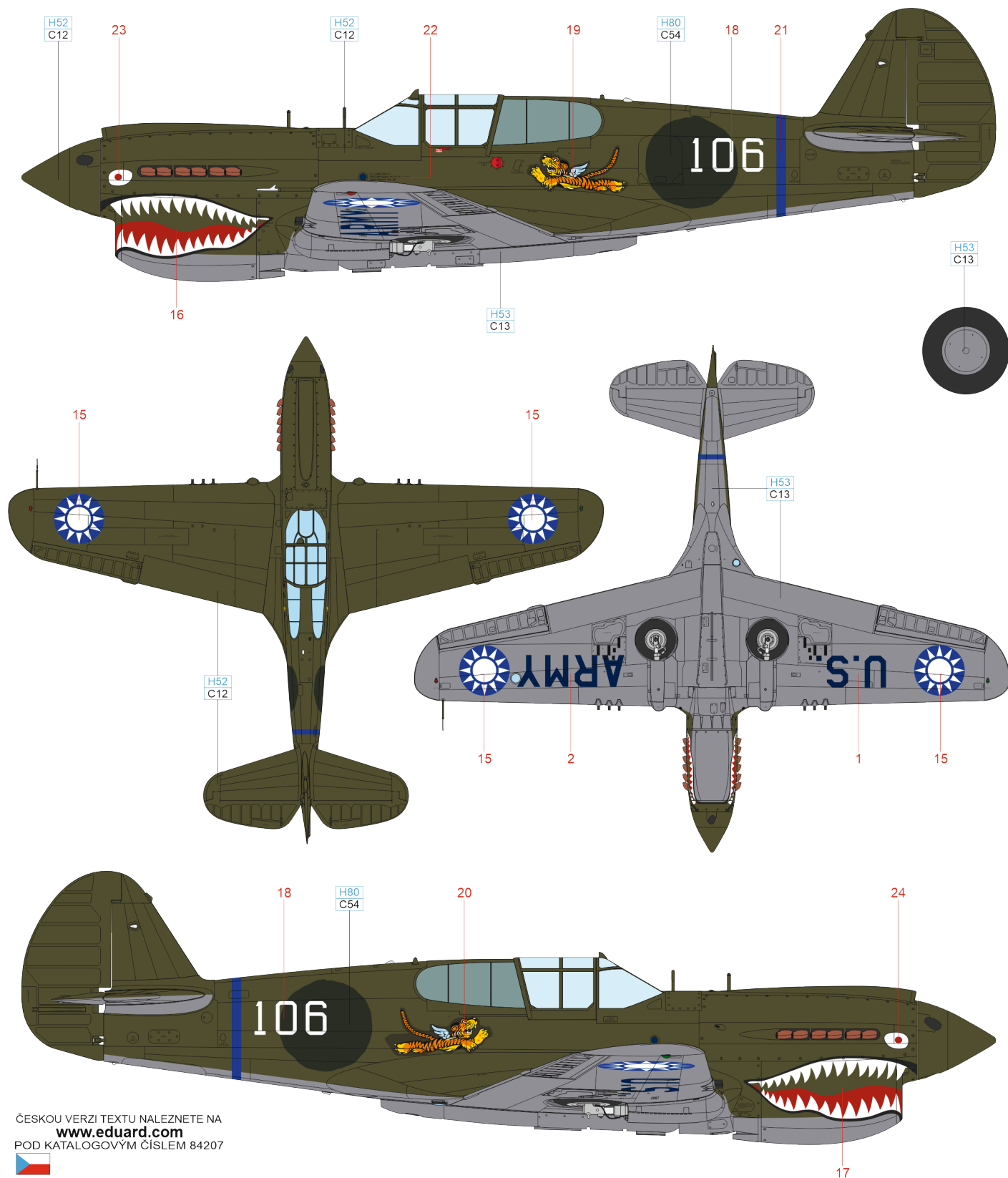


OLIVE DRAB H52 C12 NEUTRAL GRAY H53 C13 BLUE H328 C328

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B Lt. John E. Petach Jr, 75th FS, 23rd FG, 14th AF, Hengyang, China, July 1942

This son of Slovak parents was born on July 15, 1918, in Pennsylvania. After studying chemistry at New York University, he joined the US Navy in 1939, where he completed pilot training in Pensacola. He began his service on the USS Ranger (CV-4) with VS-42 where he flew SB2U Vindicator aircraft. He joined the 1st American Volunteer Group, fighting against the Japanese in China, on August 10, 1941, and was assigned to the second squadron, "Panda Bears," as flight commander. Initially, he flew most often with the P-40B P-8127 with tactical number 47, later he used the P-40E with the number 106. As part of his deployment with the AVG, he participated in seven victories over Japanese aircraft, which, when combined with his shares, meant a total score of 3.93 confirmed kills. In February 1942, he married nurse E. J. Foster, who worked for the AVG. In July 1942, the AVG was disbanded and reorganized into the regular 23rd Fighter Group of 14th Air Force, USAAF. Most of the original AVG members returned to the United States, but John Petach remained with the 23rd Fighter Group as an instructor. Nevertheless, on July 6, he took part in the 23rd FG's first air battle, shooting down one enemy fighter for sure and another probably. On July 10, 1942, he took off on a combat mission to attack a target near Nanchang. During a dive attack, he was hit by anti-aircraft fire and killed.



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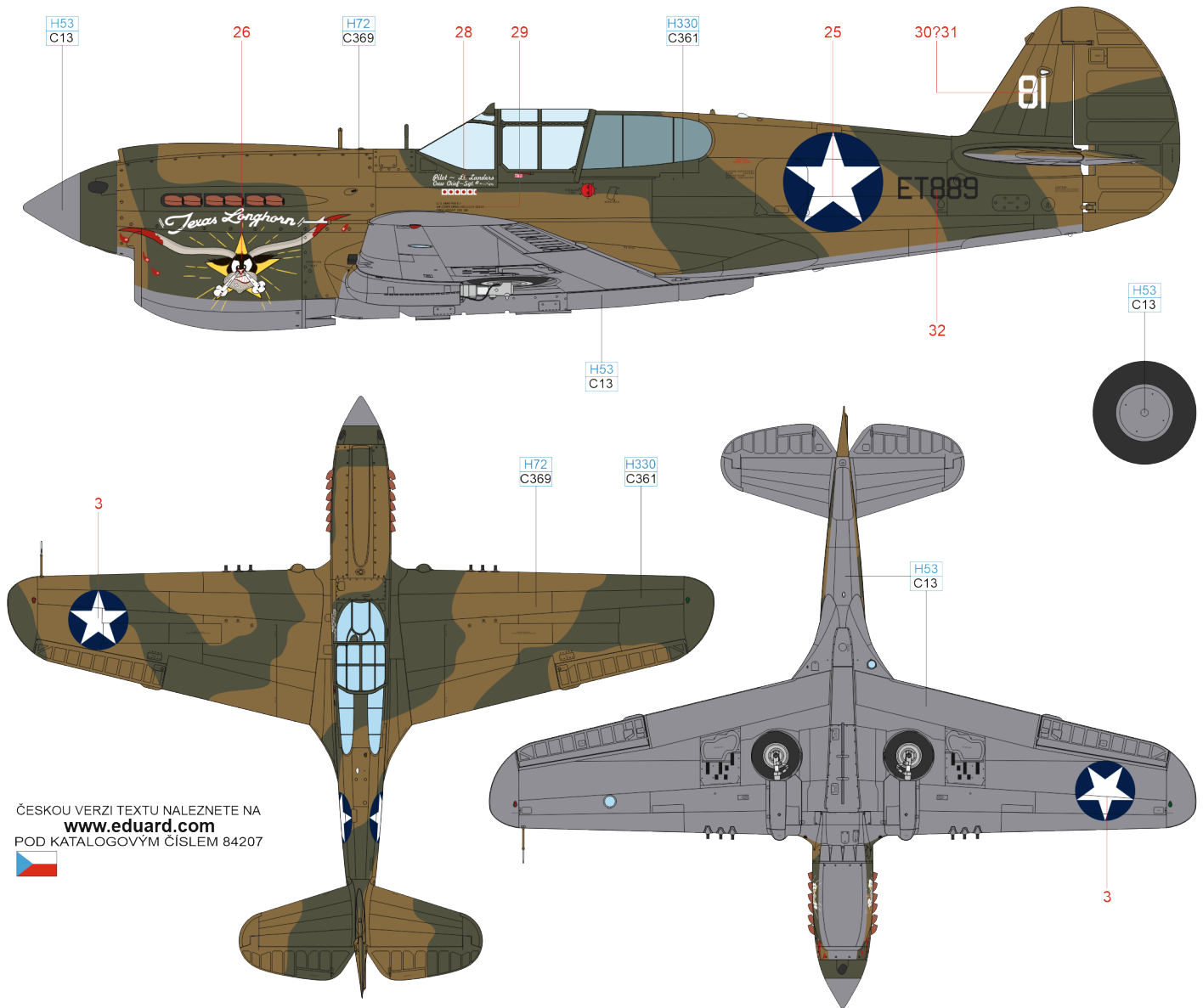


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| OLIVE DRAB | H52 | NEUTRAL GRAY | H53 | KHAKI GREEN | H80 |
| | C12 | | C13 | | C54 |

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C 41-36243, 1/Lt. John Landers, 9th FS, 49th FG, Port Moresby, New Guinea, 1942

A set of photographs from the deployment in New Guinea is available for the Warhawk named Texas Longhorn. However, not a single photograph shows the tactical number on the tail or the British registration number. According to the author of the publication about the 49th FG named Protect and Avenge, this aircraft was never used for combat missions. In January 1943, the Longhorn was transferred from the 9th FS to the 8th FS, where it served until March 2, 1943, when Lt. Cyrus Lynd took off from Port Moresby and crashed fatally northeast of Kokoda. The wreckage of the aircraft was found after the war, and in addition to parts of the nose bearing the name of the aircraft, the tail surfaces also preserved the number 81 (the number was changed to 82 later, but only fractions of it remained on the wreckage) and the serial number ET889. These clues support the assumption that during his service with the 9th FS in the second half of 1942, John Landers used Longhorn as his personal aircraft. He posed for a photographer in front of the decorated nose of the fighter, although according to one opinion, this was only for promotional purposes. Before moving to New Guinea, Landers was assigned Warhawk No. 81, nicknamed Skeeter, which he flew until September 1942. He later fought successfully in Europe and named his P-51 Mustangs Big Beautiful Doll.



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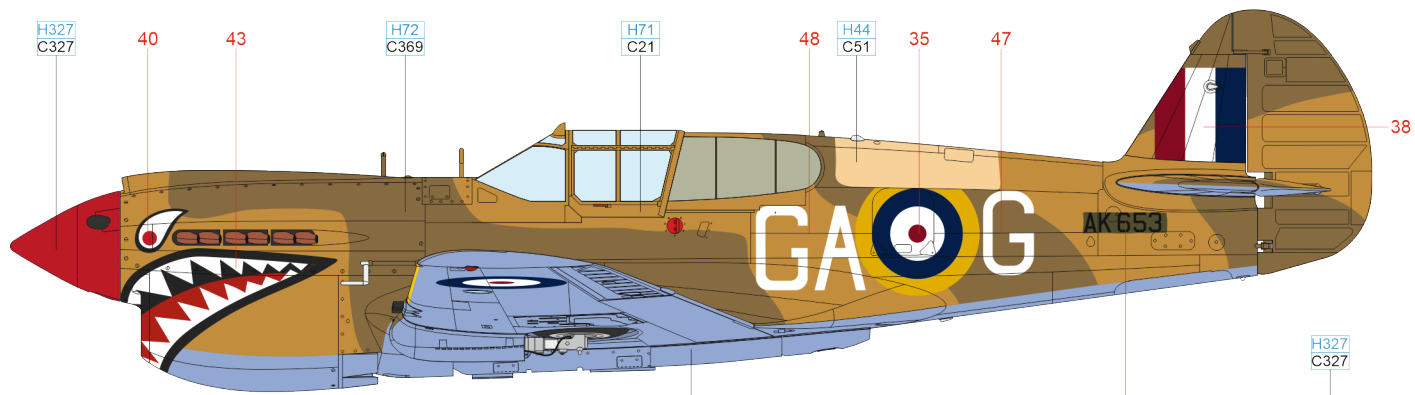


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| DARK GREEN | H330 C361 | DARK EARTH | H72 C369 | NEUTRAL GRAY | H53 C13 |
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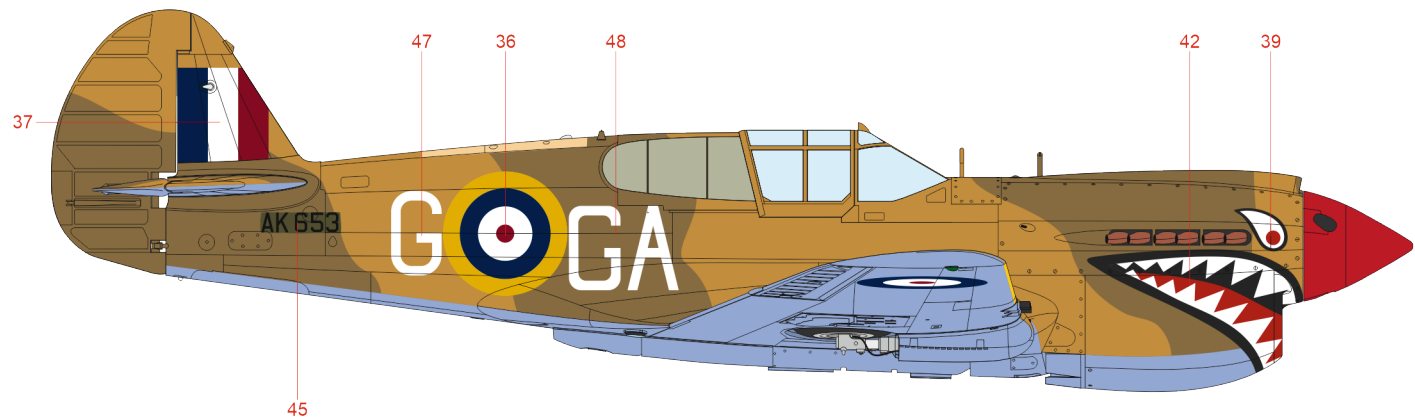
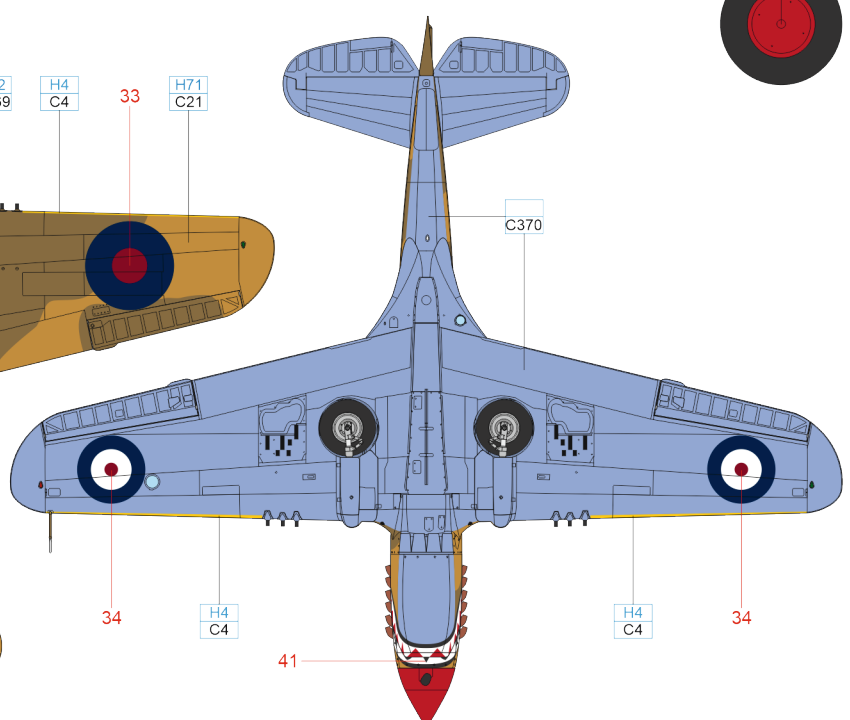
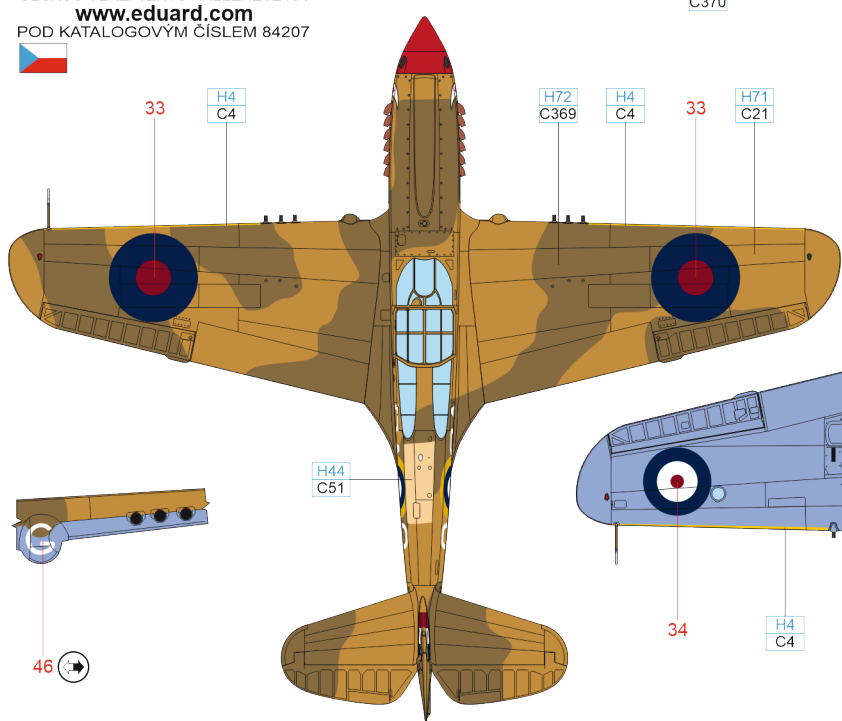
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D AK653, F/O Neville Duke, No. 112 Squadron (RAF), El Adem, Libya, January 1942

The later famous test pilot Neville Frederick Duke flew with No. 112 Squadron during 1942 with eleven different Kittyhawk Mk.I and Mk.IA aircraft. He used this one in January 1942, but it was not his personal mount. The aircraft was severely damaged on February 15, 1942, during a dogfight near Gazala. Sgt. Donald Neil McQueen was in the cockpit at the time and, despite being injured, escaped a clash with Ofw. Otto Schulz. Before that, Schulz had managed to shoot down four other Kittyhawks from No. 94 Squadron, including its CO Ernest Mason, bringing his tally to 44 kills. The aircraft was repaired and continued to see combat. Duke no longer used it (at that time he was flying AK707, GA-Y and AK900, GA-A), but it was flown by Sgt. Simonsen and Sgt. Drew, who shot down two Macchi Mc.200s while flying it on April 12 and 14, 1942. The photo shows a repair to the fuselage behind the cockpit, done in a lighter color than Middle Stone. The repair covered the upper part of the fuselage cockade on the port side.



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| MIDDLE STONE | H71 C21 | DARK EARTH | H72 C369 | AZURE BLUE | C370 | RED | H327 C327 | YELLOW | H4 C4 | TAN | H44 C51 |
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