

## **P-40M Warhawk 'Involuntarily from Russia to Finland'**

### INSTRUCTIONS

**EN**

In the 1930's, when the effects of the great depression had faded away, a contest flared up in the USA between aviation companies to provide the military with a new and standard type of a fighter plane. Eventually, Curtiss company became the winner with their radial engine-equipped P-36 Hawk monoplane. Curtiss supplied not only the USAAC (to be known as the USAAF from 1941), but also their European customers who were involved in the conflict that had broken out in 1939. In 1937, after eight years of development, a new type of in-line aircraft engine was finally approved for production and service called Allison V-1710 C-series. It was decided to build a test series of Curtiss YP-37 planes and also the new XP-40 fighter type just to give this new powerplant a try. Both these types originated in the already mentioned P-36 plane. The prototype XP-40 took off for the first time on 14 October 1938 and following some improvements and adaptations, it took part in a fighter competition in January 1939 which it passed with flying colours. Production of Allison V-1710 C series engine equipped Curtiss fighter planes started, giving the P-40, P-40B and eventually the P-40C versions. The British military bought the type as well, acquiring in total much more than the US forces and named the type the Tomahawk Mk.IA and Mk.IB respectively.

In 1939, Allison developed a new version of their V-1710 power unit, the so-called F-series. It was intended to use this powerplant in the new Curtiss XP-46 fighter, which however in the end did not offer much better performance than the P-40B/C type. But as large numbers of fighter planes were needed at that time, a new version of the P-40 with this new power plant was ordered, to be known as the P-40D Warhawk and in the RAF as the Kittyhawk Mk.I. The first batch of 43 had armament of only two machine guns per wing, later machines would be fitted with three guns in each wing. The following E version, bearing six guns by standard, differed only very little from the earlier D model, in just few details. It became clear very soon that in real combat the P-40D/E's engine lacked sufficient power at higher altitudes, mainly because of its single-stage supercharger.

The war time necessity for still more and more fighter aircraft without interrupting the production led the aircraft manufacturers to the development of further versions with even more powerful engines or also equipped with British R&R Merlin engines. The latter were used with the P-40F and L versions (in the UK known as the Kittyhawk Mk.II). Due to the lack of directional stability, the fuselages of F-5 production block machines were lengthened by 48cm. But as the Merlin engines were most needed for the Mustang fighters, the production of the P-40Fs and Ls did not last very long.

The P-40K was fitted with a V-1710-73 engine and was produced in two main varieties, the block K-1 to K-5 machines had larger tail fin area while the K-10 and later machines had their fuselage elongated in a similar manner to the P-40F. Following the K machines, a new and light-weight version was developed and produced, designated the P-40M and equipped with a V-1710-87 power unit. Both these versions were known as the Kittyhawk Mk.III in Britain. The final production version was the N or Kittyhawk Mk.IV. Its first production block did not look much too different from the M, later blocks differed by having the clear canopy redesigned and providing much better rearward view for the pilot.

The Warhawk / Kittyhawk fighters did not prove to be much suitable for the war over Western Europe, but fought and enjoyed quite a lot of success in Africa, over Italy, in the Pacific, China, India or Alaska and also in the skies of the Soviet Union, where they had been delivered during the Lend and Lease programme. Along the USAAC / USAAF, the type was also operated by such air forces as were the RAF, SAAF, RAAF, RNZAF or RCAF and many other forces almost all around the world. Some machines were also captured by the enemy, namely Finland and Japan and even these found their way to real combat use.

The P-40D to N fighters had never been the very top fighting machines of that time, however due to their rather robust and reliable structure they became much liked by their pilots who during the course of the war flew them rather more and more in the fighter-bomber role and even enjoyed many success in air to air engagements, achieving plenty of victories over the enemy and also reaching their acedoms quite often. It would be just fair to acknowledge the shark-mouthed P-40 fighters as one of the symbols of the Allied victory in the Second World War.

Wingspan: 11.38 m, length: 10.16 m, max speed: 608 km/h (N-1), range: 1,207 km, ceiling: 9,144 m.

**CZ**

Na konci třicátých let, po odeznění hospodářské krize, se v USA rozhořela soutěž o to, která z leteckých firem dodá armádnímu letectvu standardní stíhačku. Firma Curtiss v této soutěži uspěla se svým P-36 Hawk s hvězdicovým motorem. Dodávala jej nejen USAAC (od roku 1941 USAAF), ale hlavně zákazníkům v Evropě, kde v roce 1939 vypukla druhá světová válka. V roce 1937 byl v USA homologován od roku 1929 vyvíjený řadový motor Allison V-1710 řady C. Snaha o jeho vyzkoušení vedla k stavbě pokusné série letounů Curtiss YP-37 a také ke stavbě nového letounu XP-40. Oba typy vycházely konstrukčně z P-36. XP-40 poprvé vzletl 14. října 1938. Po úpravách se zúčastnil v lednu 1939 porovnávací soutěže nových stíhacích typů a tu vyhrál. S motorem Allison V-1710 řady C byly postupně vyráběny verze P-40, P-40B a P-40C. Britové, kteří zakoupili více letounů než letectvo USA, označovaly tyto stroje jménem Tomahawk Mk.IA a Mk.IB.

Firma Allison vyvinula v roce 1939 novou verzi motoru V-1710, řady F. Motor byl použit v nové curtissově stíhačce XP-46. Ta ale nenabídla vyšší výkony než P-40B/C. Vzhledem k potřebě stíhacích letounů byl ale objednána nová verze P-40 s novou verzí motoru. Dostala označení P-40D Warhawk (u Britů Kittyhawk Mk.I). Prvních 43 strojů neslo v křídle 4 kulometry, další vyráběné jich nesly šest. Jen v drobnostech se lišila verze P-40E vyzbrojená standardně šesti kulometry (britské označení Kittyhawk Mk.IA). V bojích se brzy ukázalo, že P-40D/E s motory V-1710 s jednostupňovým kompresorem mají špatné výškové vlastnosti. Válečná potřeba dalších stíhaček bez nutnosti přerušit výrobu vedla k vývoji dalších verzí se silnějšími verzemi motoru V-1710 a verzí s britským motorem R&R Merlin. Merlin byl použit u verzí P-40F a L (britské označení Kittyhawk Mk.II). Potíže se směrovou stabilitou vedly u výrobního bloku F-5 k prodloužení trupu o 48 cm. Rostoucí potřeba Merlinů pro výkonnější Mustangy ale výrobu těchto verzí zastavila.

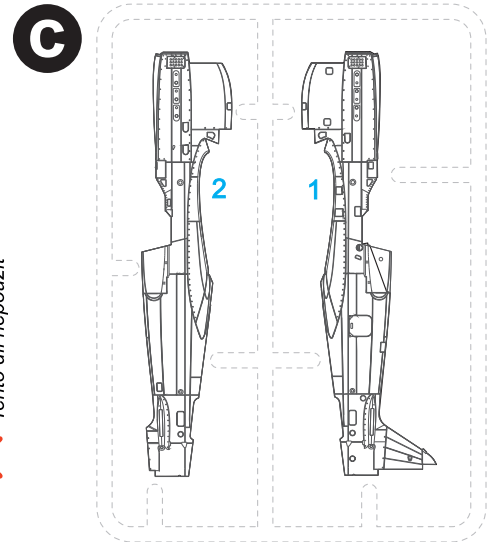
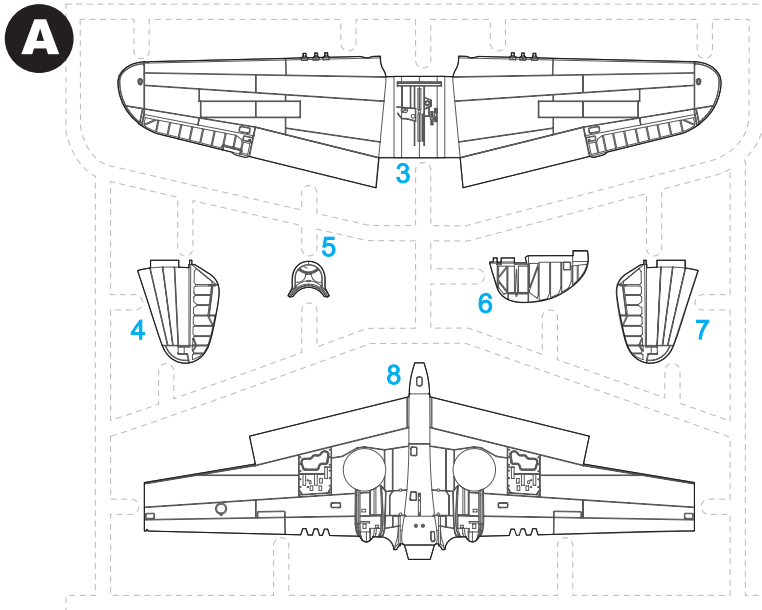
P-40K s motorem V-1710-73 byl vyráběn ve dvou provedeních, série K-1 až K-5 měly zvětšenou kýlovou plochu. K-10 a vyšší výrobní bloky měly prodloužený trup, podobně jako vyšší výrobní bloky P-40F. Na verzi K navázala odlehčená verze M s motorem V-1710-87. Britové obě verze označovali Kittyhawk Mk.III. Poslední sériovou verzí se stala P-40N / Kittyhawk Mk.IV. První výrobní blok měl ještě starý typ kabiny, další výrobní bloky dostaly novou kabínu s lepším výhledem vzad.

Stíhačky Warhawk/Kittyhawk se nehodily pro západoevropské bojiště. Byla nasazeny v Africe, Itálii, v Pacifiku, Číně, Indii, na Aljašce, v rámci pomoci byly dodány do Sovětského Svazu. Kromě USAAC/USAAF tyto stroje používalo RAF, SAAF, RAAF, RNZAF, RCAF a letectva dalších států po celém světě. Kořistní stroje P-40 byly bojově použity Japonskem a Finskem.

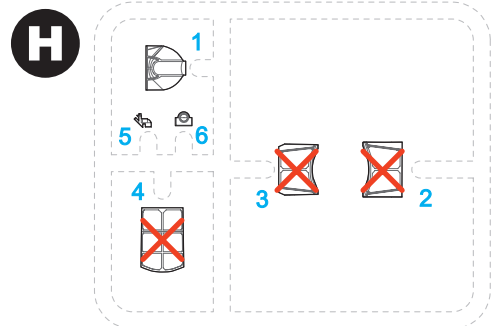
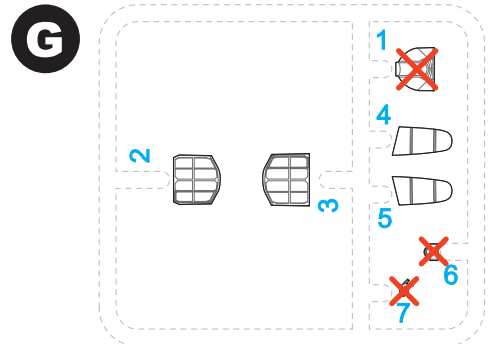
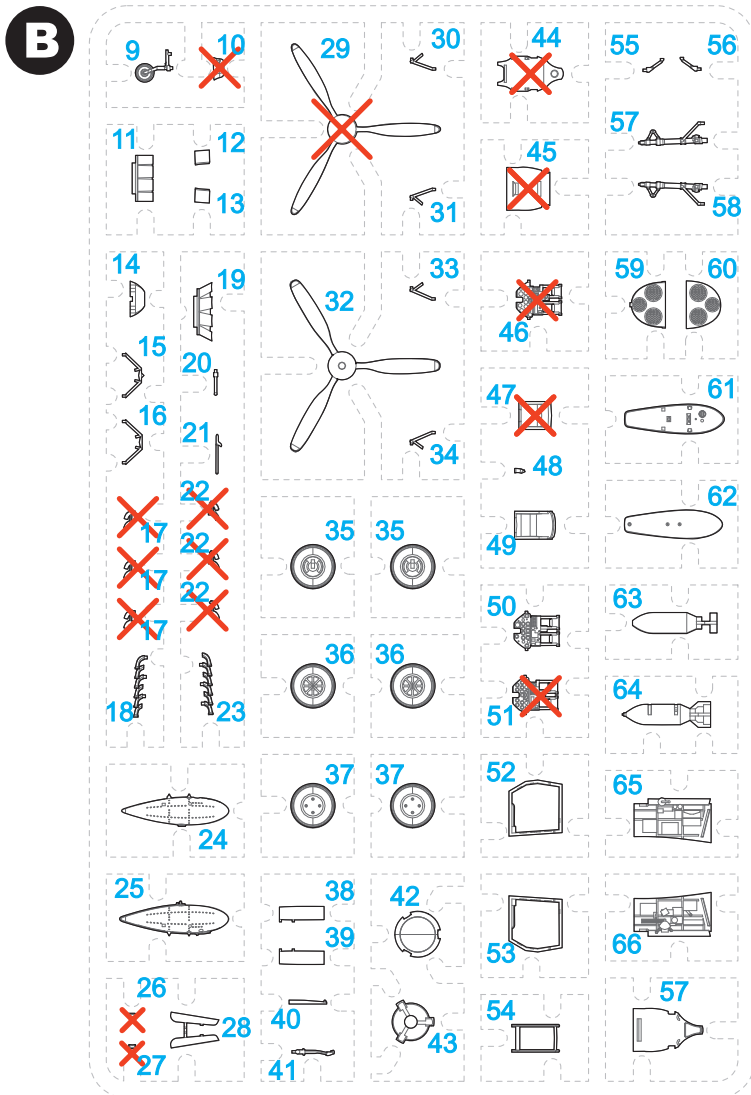
P-40D až N nebyly špičkové stíhačky, ale byly robustní a odolné a bylo jich vyrobeno velké množství. V průběhu války byly stále více používány jako stíhací bombardéry. I přesto se mnoho pilotů stalo v cockpitu P-40 esem a P-40 s namalovanou zubatou tlamou na přídi se stal jedním ze symbolů vítězství spojenců ve druhé světové válce.

Rozpětí: 11,38 m, délka: 10,16 m, max. rychlost: 608 km/h (N-1), dolet: 1 207 km, dostup: 9 144 m.

# Parts List



Do not use this part  
Tento díl nepoužít



## Clear Parts

Barvy GUNZE/ GUNZE Colour No.		
A	Curtiss Interior Green	H58/C27+a drop of 37/43
B	Aluminium / Hliník	H8/C8
C	Black / Černá	H12/C33
D	Red / Červená	H3/C3
E	Olive Drab / Nevýrazná olivová	H52/C12
F	Burnt Iron / Opálený kov	H76/C61
G	Tire Black / Barva pneu	H77/C137
H	Yellow / Žlutá	H329/C329
I	Leather / Hnědočervená	H47/C41
J	Clear Red / Červená čirá	H90/C47
K	Clear Green / Zelená čirá	H94/C138
L	White / Lesklá bílá	H1/C1
M	Gunmetal / Dělovina	H28/C78
N	Neutral Gray / Neutr. šedá	H53/C13

## SYMBOLS

**?** OPTIONAL  
MOŽNOST VOLBY  
NACH BELIEBEN  
OPTION

**💧** INSTANT CYANOACRYLATE GLUE  
POUŽIT KYANOAKRYLÁTOVÉ LEPIDLO  
ZYANOAKRYLATKLEBER  
ADHESIF CYANOACRYLAT

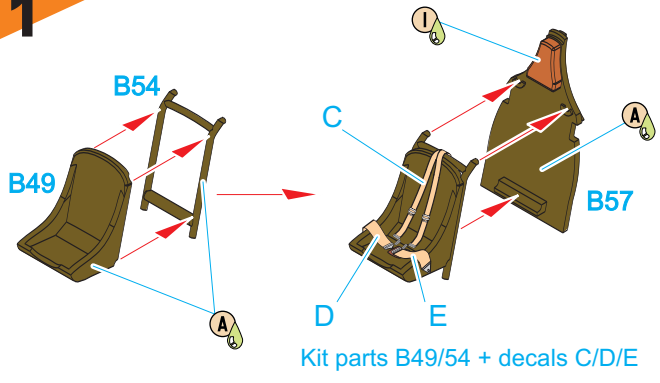
**↪** BEND  
OHNOUT  
BIEGEN  
COURBER

**✋** SCRATCH BUILD  
ZHOTOVIT NOVÉ  
FERTIGSTELLEN  
ACHEVER

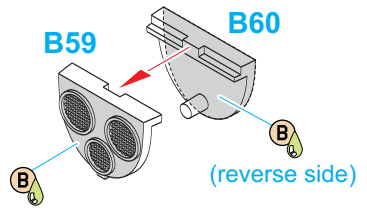
**✂** CUT OFF/DRILL  
ŘEZAT/VRTAT  
ENTFERNEN  
DETACHER

**A** COLOUR  
NATRÍT  
FARBEN  
PEINDRE  
GSI colours code

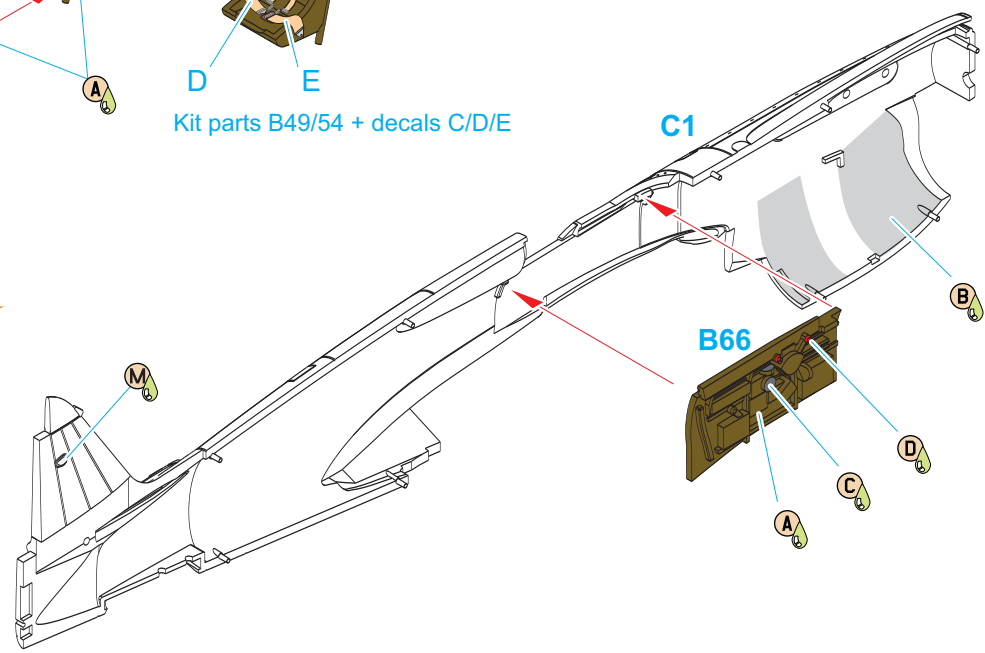
# 1



# 2

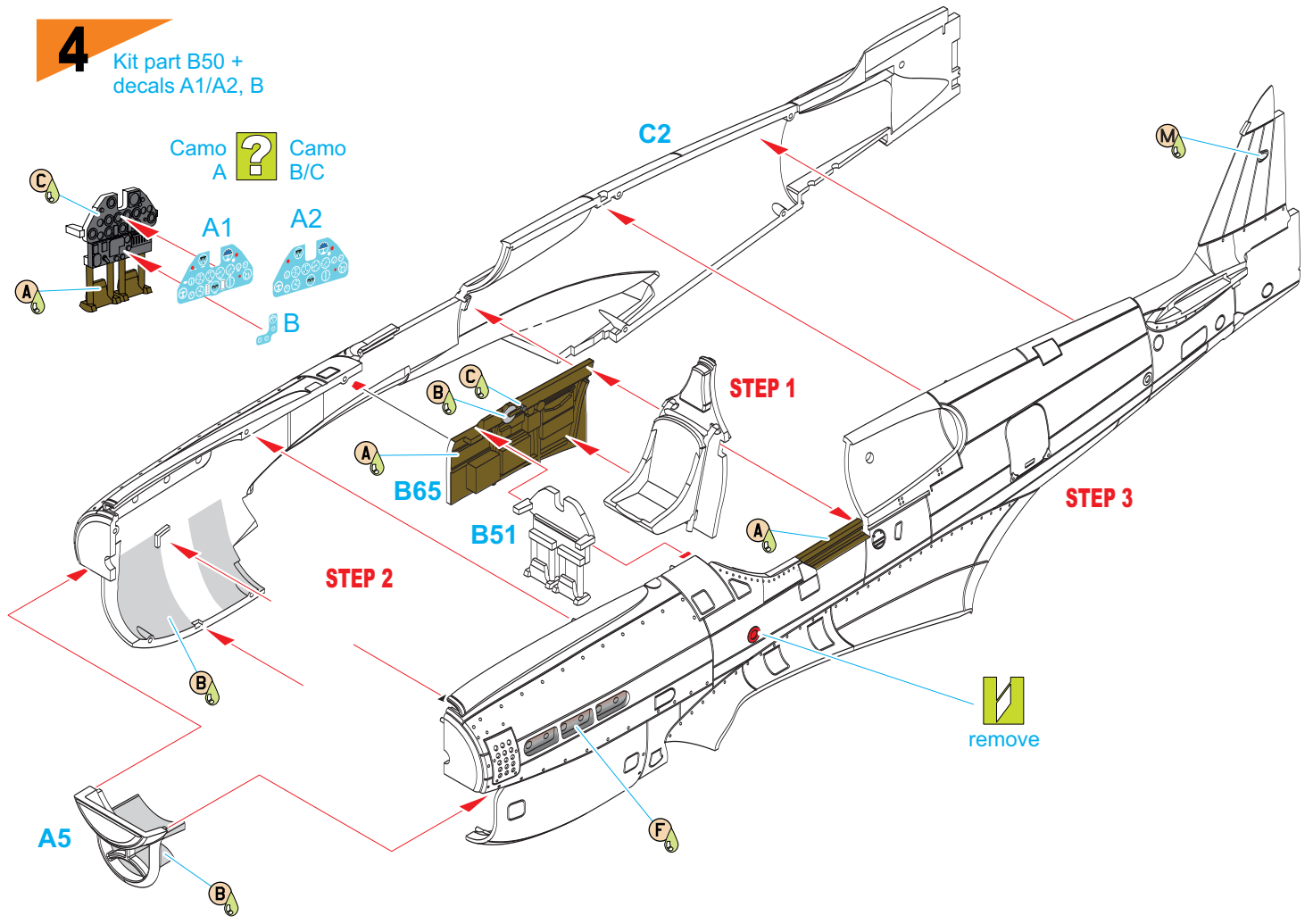
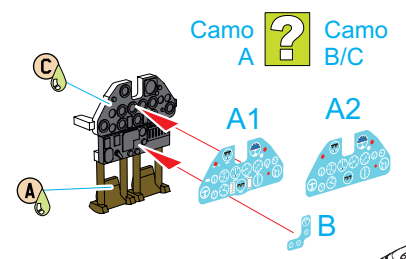


# 3



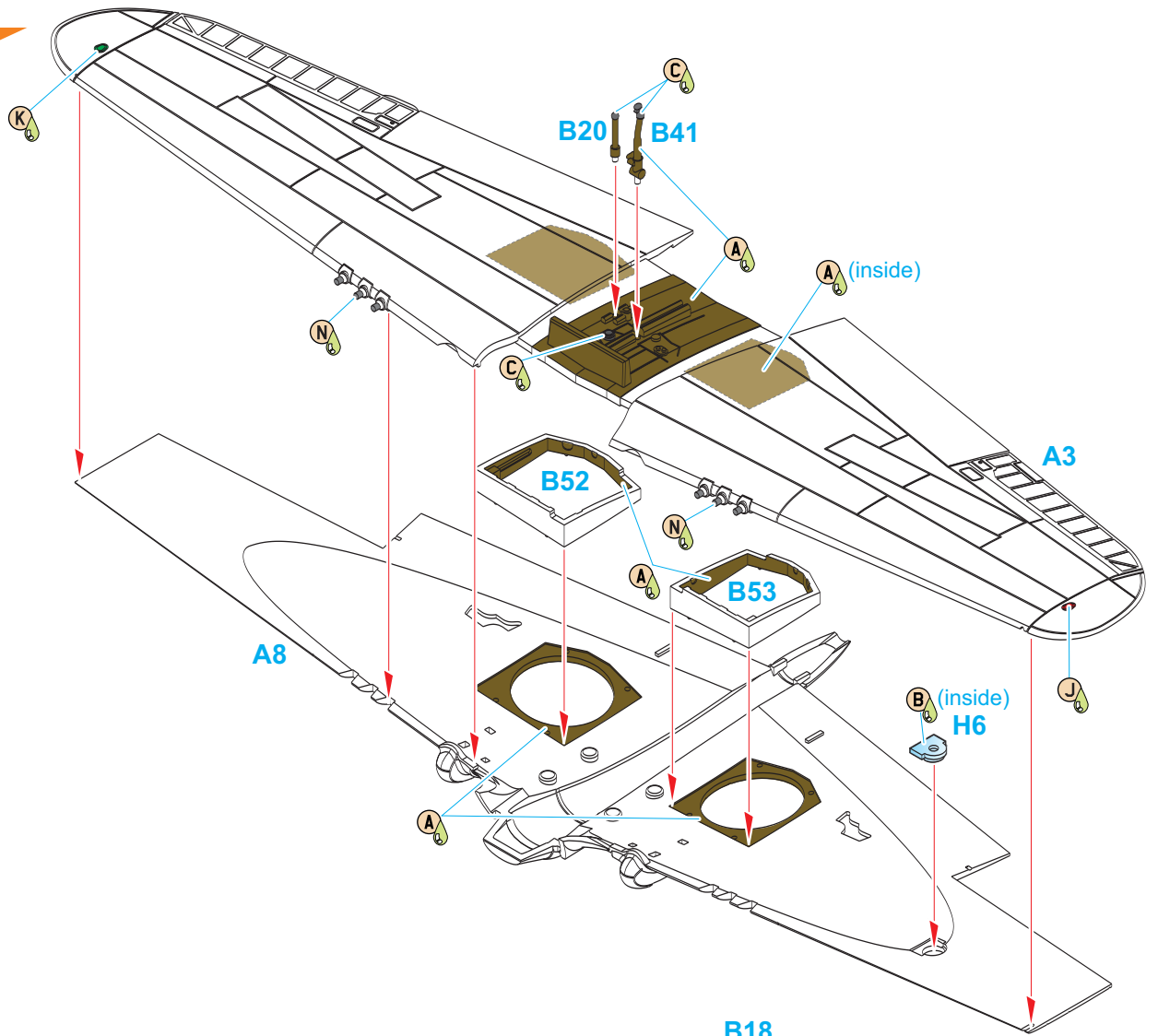
# 4

Kit part B50 + decals A1/A2, B

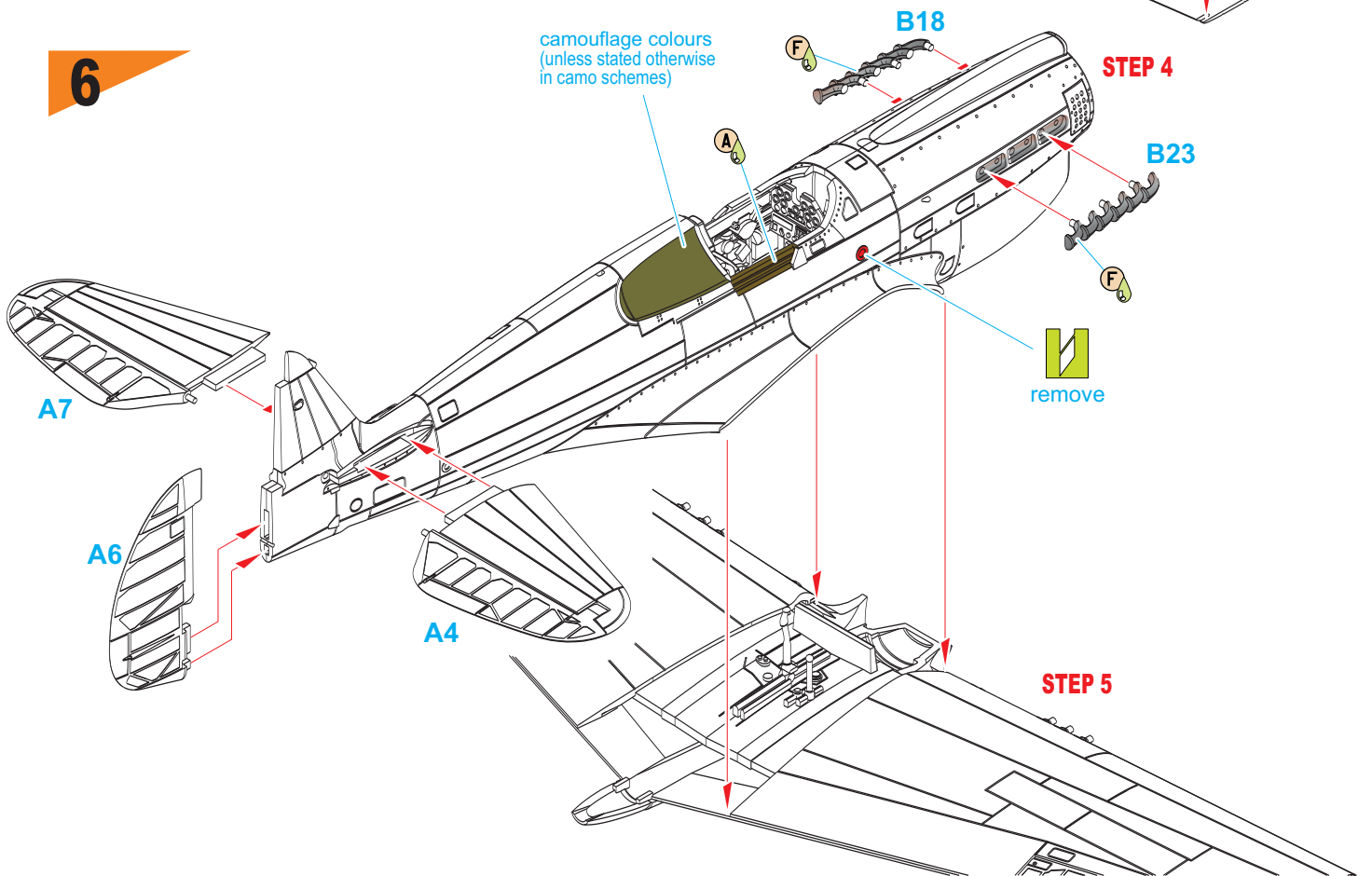




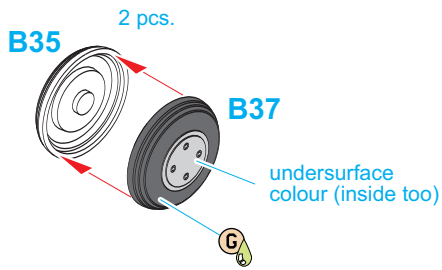
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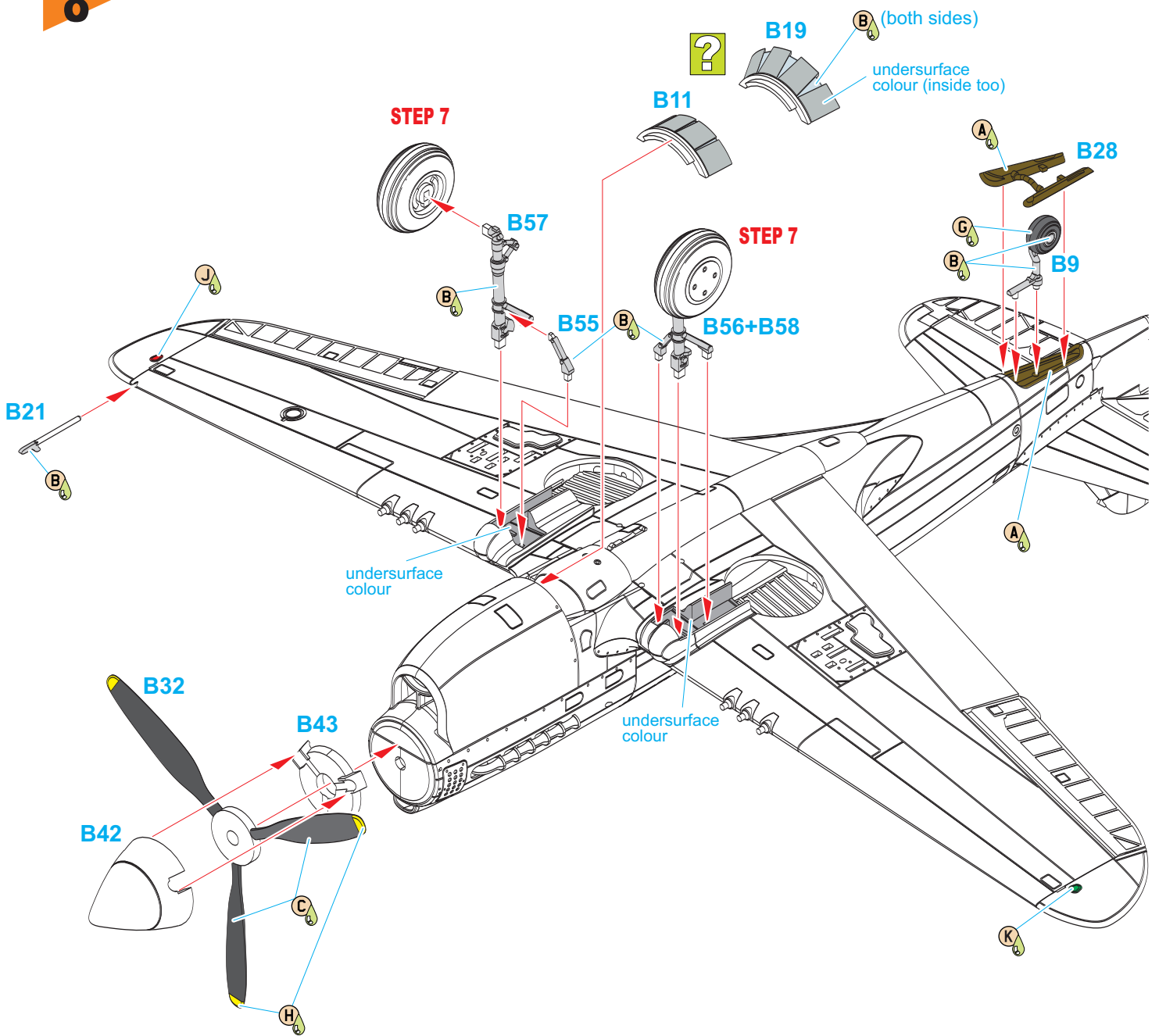
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7



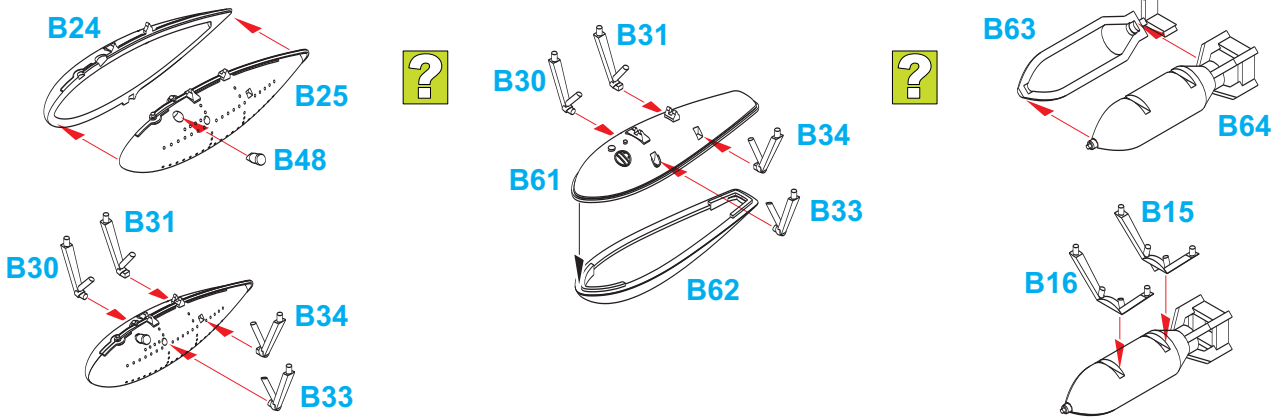
8



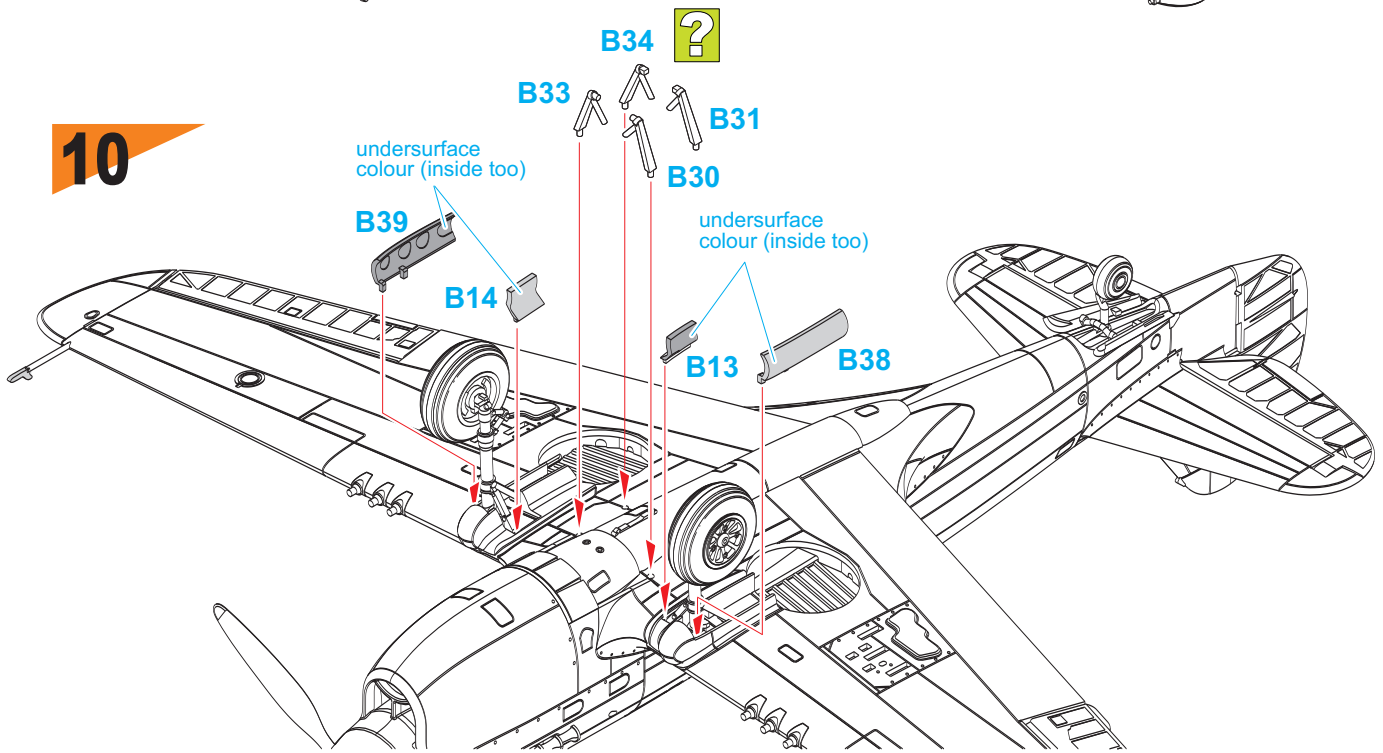
# 9

P-40M 43-9525 was equipped with a hanger for an additional tank. There is unfortunately no photographic evidence of a tank or bom under the fuselage. This applies to all of its colour schemes. The assembly of the tank and bomb is here for informational value only.

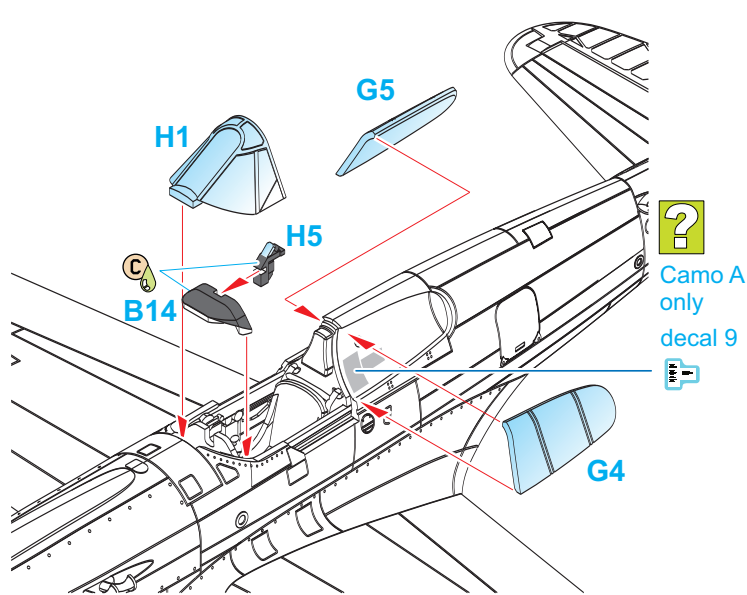
P-40M 43-9525 byl vybaven závěsníkem pro přídavnou nádrž. Fotograficky není doložen s nádrží nebo s bombou pod trupem. To se týká všech jeho barevných podob. Sestava slepení nádrží a bomby má proto pouze informační význam.



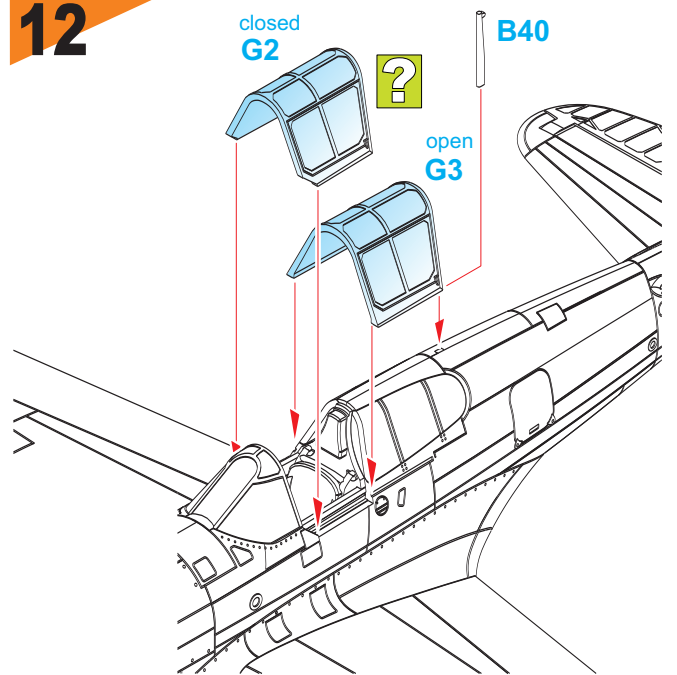
# 10



# 11



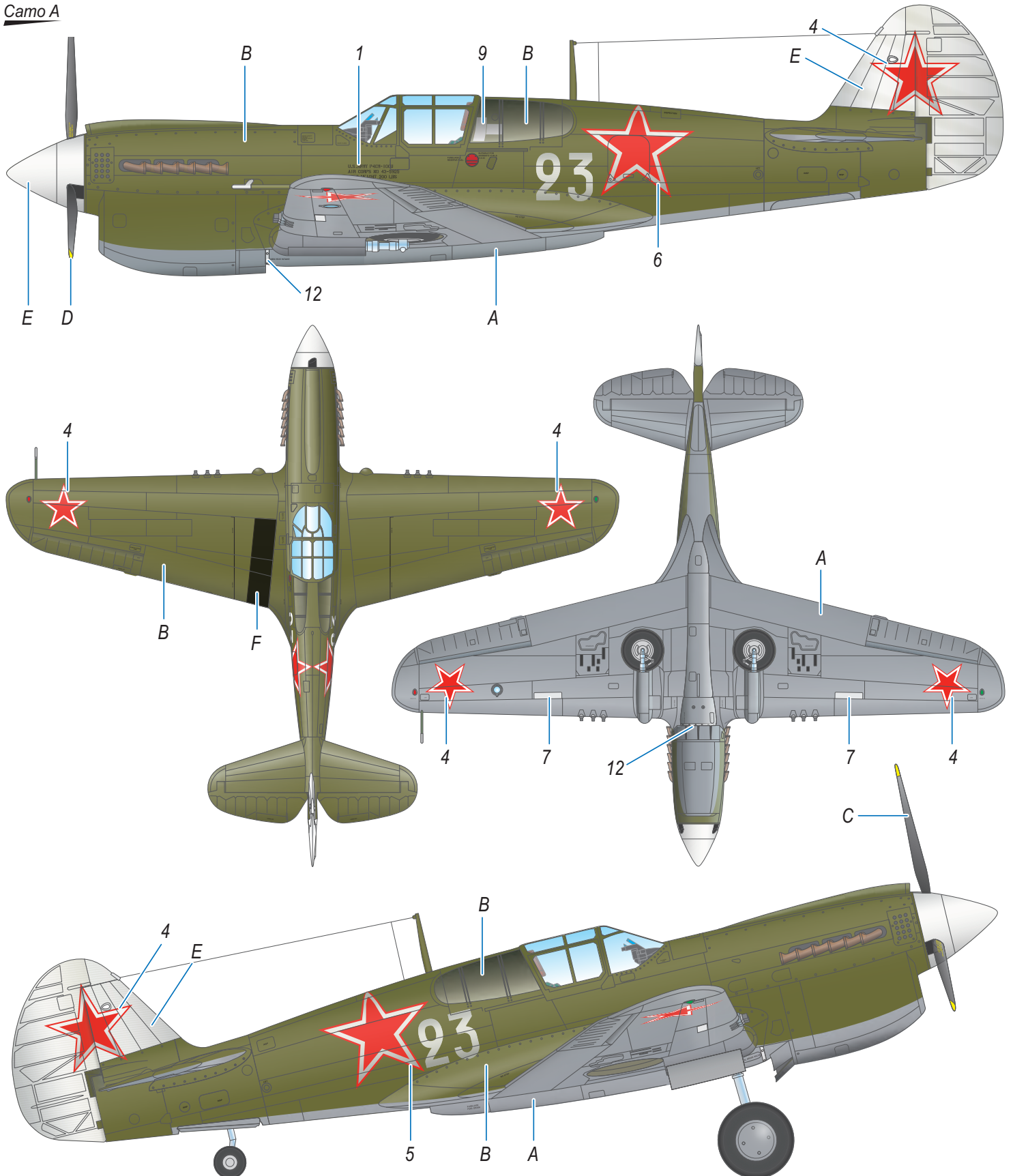
# 12



P-40M Warhawk, 43-9525/ Silver 23, Second Lieutenant V.A. Revin, 191. IAP (Fighter Aviation Regiment), 27 December 1943. V.A. Revin landed with this aircraft after losing his bearings on the frozen Valkjärvi Lake and was captured. The markings of the aircraft, the propeller cone, the edges of the stars and the vertical part of the tail surfaces were painted with aluminium paint (white is also mentioned, but aluminium paint is more likely). V.A. Revin was released from Finnish captivity after the war. Surprisingly, he was not sent to the Gulag in the Soviet Union, only released from the ranks of the Red Army into civilian life.

P-40M Warhawk, 43-9525/ stříbrná 23, podporučík V.A. Revin, 191. IAP (stíhací letecký pluk), 27. prosince 1943. S tímto letounem V. A. Revin přistál po ztrátě orientace na zamrzlém jezeře Valkjärvi a padl do zajetí. Označení letounu, vrtulový kužel, lemy hvězd a svislá část ocasních ploch byla natřena hliníkovým nátěrem (uvádí se i bílá, ale hliníkový nátěr je pravděpodobnější). V. A. Revin byl po válce propuštěn z finského zajetí. V Sovětském svazu překvapivě nebyl poslán do gulagu, pouze propuštěn z řad Rudé armády do civilu.

**Camo A**



- |  |   |                                    |                                    |  |  |
|--|---|------------------------------------|------------------------------------|--|--|
| <b>A</b> Neutral Gray<br>Neutrální šedá<br>H53/C13 | <b>B</b> Olive Drab<br>Nevýrazná olivová<br>H52/C12 | <b>C</b> Black<br>Černá<br>H12/C33 | <b>D</b> Yellow<br>Žlutá<br>H/C329 | <b>E</b> Silver Dope<br>Stříbrný nátěr<br>H/C8 | <b>F</b> Tire Black<br>Černá<br>H77/C137 |
|--|---|------------------------------------|------------------------------------|--|--|

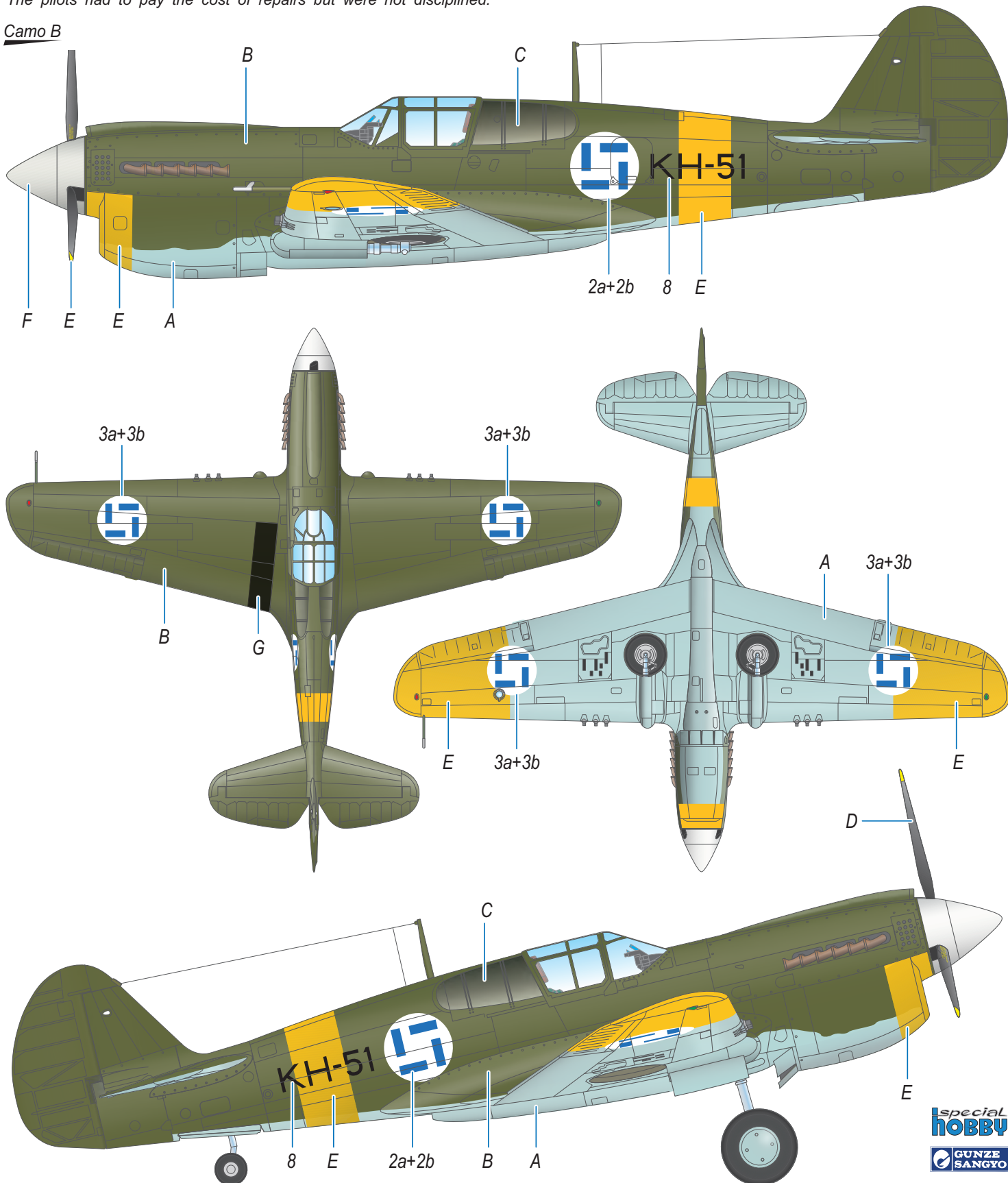




P-40M Warhawk, 43-9525/ KH-51 (ex silver 23), HLeLv 32, July 1944. The captured aircraft received a new Finnish paint and markings. It was to be taken over by the Aircraft Mechanics School (Mekaanikkokoulu) in Utti as a static exhibit for mechanic training. The director of the school, however, had the aircraft commissioned and handed it over to the pilots of HLeLv 32 (Fighter Squadron 32). KH-51 was flown by Majuri P.E. Sovelius (14 and ¾ kills) and its cockpit was rotated between various pilots of HLeLv 32 until a minor crash at Mensuvaara. After this it became apparent that the aircraft was 'non-existent' and being used on the sly. The pilots had to pay the cost of repairs but were not disciplined.

P-40M Warhawk, 43-9525/ KH-51 (ex stříbrná 23), HLeLv 32, červenec 1944. Ukořistěný letoun dostal nový finský nátěr a označení. Měla ho převzít škola leteckých mechaniků (Mekaanikkokoulu) v Utti jako statický exponát pro výcvik mechaniků. Ředitel školy však nechal letoun zprovoznit a předal ho pilotům HLeLv 32 (stíhací peruť č.32). KH-51 zalétal majuri P.E. Sovelius (14 a ¾ sestřelů) a v jeho kabině se střídali různí piloti HLeLv 32 až do lehké havárie na základně Mensuvaara. Po ní vyšlo najevo, že letoun je „neexistuje“ a je používán načerno. Náklady opravy museli uhradit piloti, ale kázeňsky potrestáni nebyli.

**Camo B**



- |  |   |   |                                    |                                    |  |  |
|--|---|---|------------------------------------|------------------------------------|--|--|
| <b>A</b> Light Blue<br>Světlá modrá<br>H/C325<br>FS35414 | <b>B</b> Olive Green<br>Olivová zelená<br>H/C320<br>FS24096 | <b>C</b> Olive Drab<br>Nevýrazná olivová<br>H52/C12 | <b>D</b> Black<br>Černá<br>H12/C33 | <b>E</b> Yellow<br>Žlutá<br>H/C329 | <b>F</b> Silver Dope<br>Stříbrný nátěr<br>H/C8 | <b>G</b> Tire Black<br>Černá<br>H77/C137 |
|--|---|---|------------------------------------|------------------------------------|--|--|

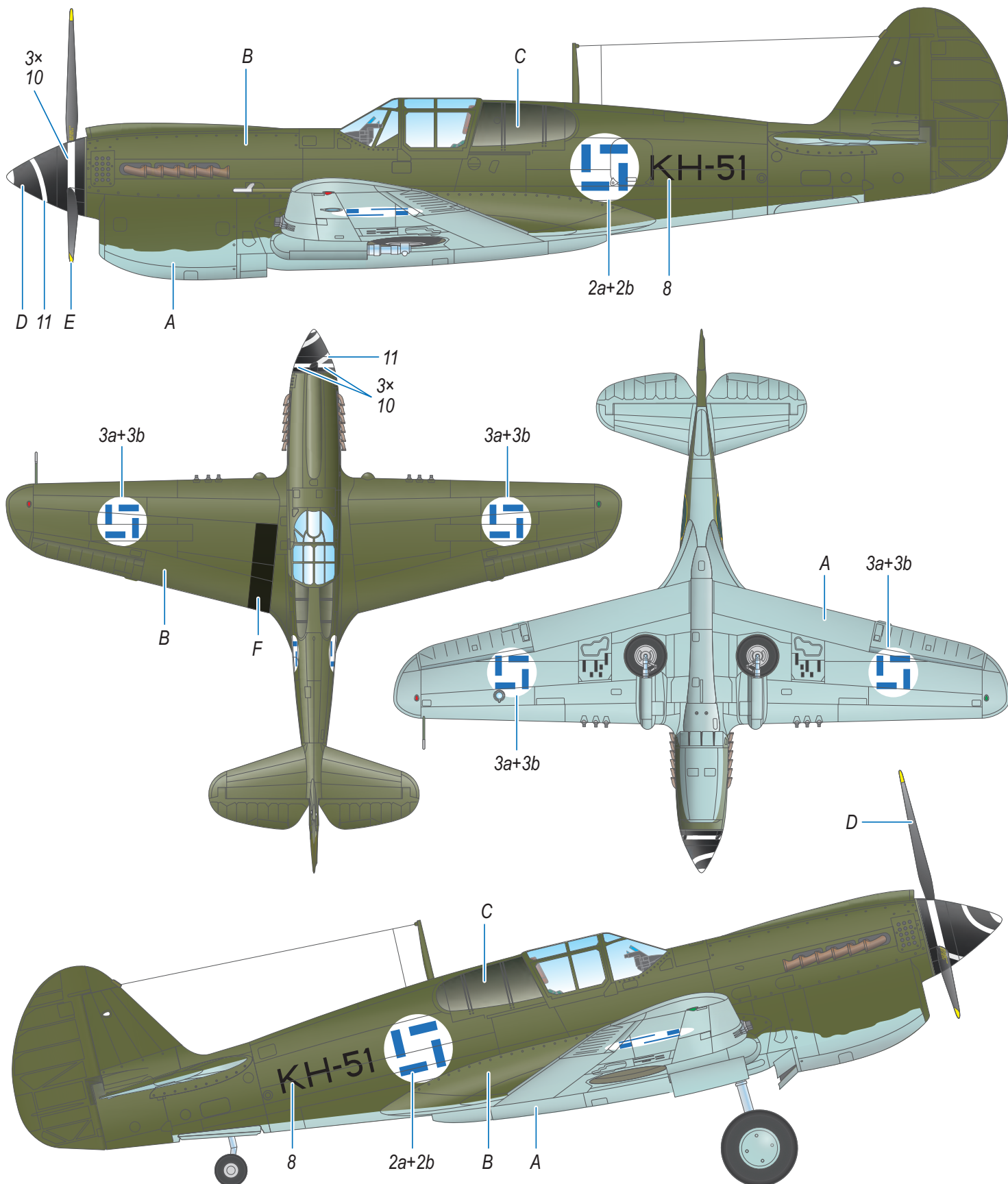




P-40M Warhawk, 43-9525/ KH-51 (ex silver 23), HLeLv 13, early 1945. It was only after the handover of HLeLv 13 that the KH-51 was officially inducted into Finnish Air Force service. The yellow accessories were removed and the cone was repainted black with a white spiral. It was also repainted with Finnish hakaristi cockades, but taken out of service on 30 July 1945. Finally scrapped in 1950.

P-40M Warhawk, 43-9525/ KH-51 (ex stříbrná 23), HLeLv 13, začátek roku 1945. Teprve po předání HLeLv 13 byl oficiálně KH-51 zařazen do služby finského letectva. Byly odstraněny žluté doplňky a kužel byl přetřen černou barvou s bílou spirálou. Dočkal se ještě přetření hakaristi finskými kokardami, ale 30. července 1945 byl vyřazen. Sešrotován byl až v roce 1950.

**Camo C**

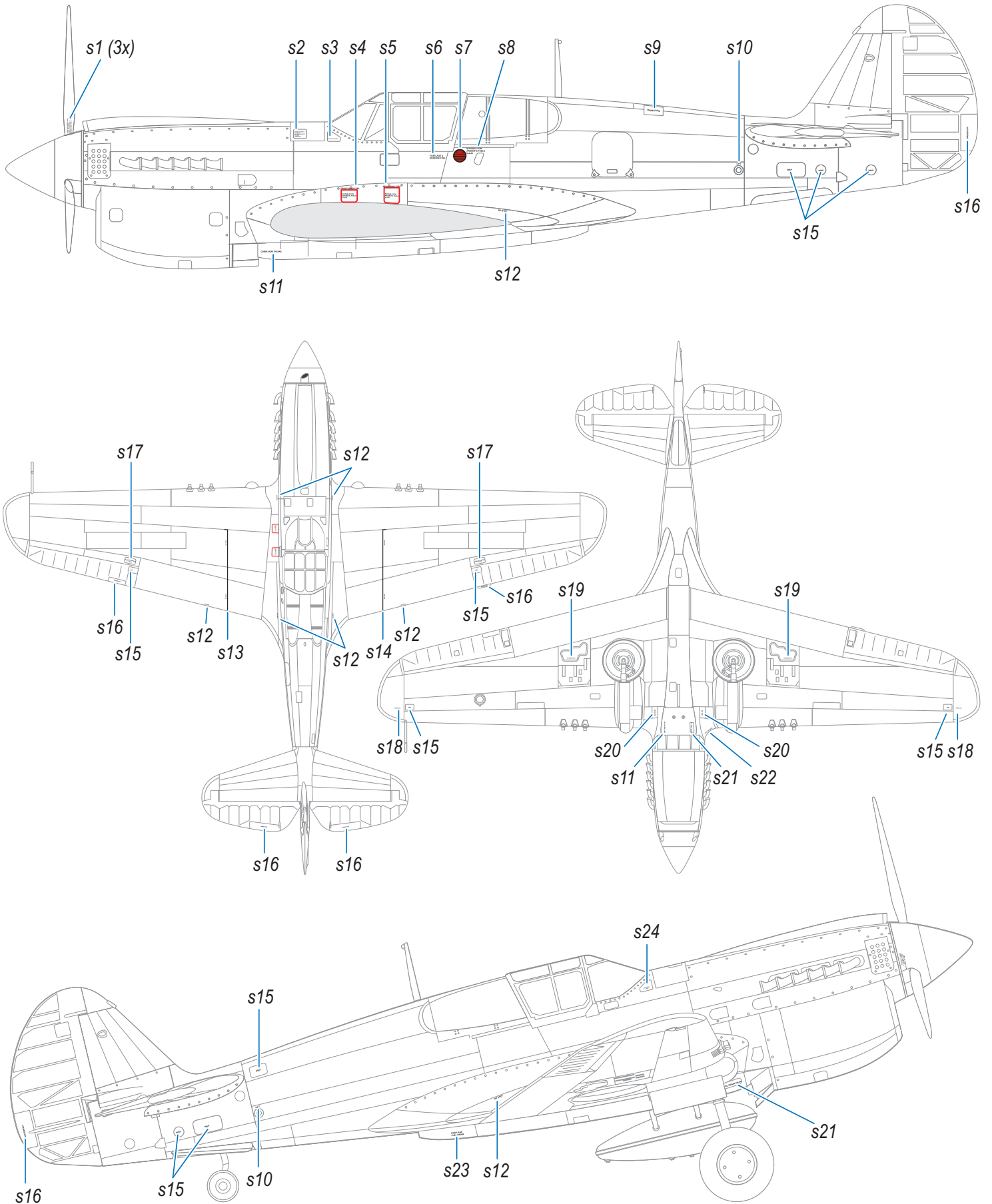


- |  |   |   |                                    |                                    |  |
|--|---|---|------------------------------------|------------------------------------|--|
| <b>A</b> Light Blue<br>Světlá modrá<br>H/C325<br>FS35414 | <b>B</b> Olive Green<br>Olivová zelená<br>H/C320<br>FS24096 | <b>C</b> Olive Drab<br>Nevýrazná olivová<br>H52/C12 | <b>D</b> Black<br>Černá<br>H12/C33 | <b>E</b> Yellow<br>Žlutá<br>H/C329 | <b>F</b> Tire Black<br>Černá<br>H77/C137 |
|--|---|---|------------------------------------|------------------------------------|--|



# Universal Stencil Placement Scheme

(note: some stencils may have not been used on your chosen machine, always check war time photos and marking schemes)



# CMK RESIN SETS FOR YOUR KIT



**Q72293 1/72**  
P-40E/F/K/L/  
M/N-1 Seat



**Q72294 1/72**  
P-40N-5 thru  
N-40 Seat



**Q72299 1/72**  
P-40E/F/K/L/M/N-1  
Seat with Belts



**7386 1/72 P-40 Control Surfaces**



**Q72300 1/72**  
P-40N-5 thru N-40  
Seat with Belts



**Q72302 1/72**  
Kittyhawk I/II/III/  
IIa/III Seat with  
Sutton Harness



**Q72303 1/72**  
Kittyhawk IV  
Seat with Sutton  
Harness



**7387 1/72 P-40 Undercarriage Set**



**7388 1/72 P-40 Engine Set**



**Q72295 1/72**  
P-40 Wheels  
Diamond Tread



**Q72296 1/72**  
P-40 Wheels Block Tread



**7390 1/72 P-40N Engine Set**



**Q72297 1/72**  
P-40 Wheels  
Cross Tread



**Q72298 1/72**  
P-40 Wheels  
Diamond  
and Hole Tread



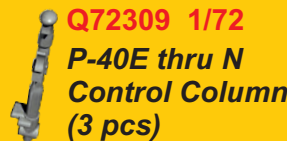
**Q72301 1/72**  
P-40 Cockpit Sidewalls  
and Control Column



**F72344 1/72**  
1/72 RAF Pilot Sitting in Cockpit w/Monkey  
on Shoulder + 2 Mechanics, Western Desert



**7389 1/72 P-40E/K/M/N Armament Set**



**Q72309 1/72**  
P-40E thru N  
Control Column  
(3 pcs)



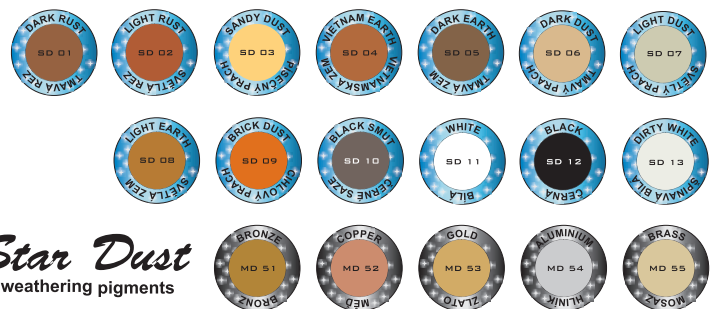
**7391 1/72 1/72 P-40E/Kittyhawk Radio Set (US/ RAF)**

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H1010 handle for our saws  
priceless tool for resin  
parts adjustment



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of sanding papers on  
one sanding stick



Star Dust  
weathering pigments

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website and e-shop: [WWW.CMKKITS.COM](http://WWW.CMKKITS.COM), [WWW.SPECIALHOBBY.EU](http://WWW.SPECIALHOBBY.EU)

Special  
**HOBBY**



1/72  
SH72470

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Ju 87D/G Gunner's Seat  
and MG 81Z machine gun  
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Junkers Ju 87D/G Exhaust  
for Academy and  
Special Hobby Kits

**F72377**  
Ju-87D/G  
Stuka  
Pilot and  
Gunner



Special  
**MASK**

**M72038**  
Junkers  
Ju 87D/G  
Stuka Mask

1/72  
SH72472

# Messerschmitt Bf 109E 'Slovak and Rumanian Aces'

RECOMMENDED FOR OUR MESSERSCHMITT BF 109E KITS



**7455**  
Bf 109E  
Engine



**7457**  
Bf 109E-3/4/7  
Wing Guns



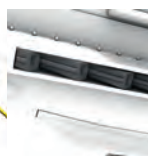
**7458**  
Bf 109E  
FuG VII Radio  
Equipment



**7460**  
Bf 109E-1/5  
Wing  
Machine Guns



**7461**  
ESK 2000 B  
German WWII  
Gun Camera



**Q72390**  
Bf 109E  
Exhausts



**Q72384**  
Bf 109E  
Wheels



**Q72391**  
Bf 109E  
Tailwheel with  
Strengthened Leg



**Q72389**  
Bf 109E  
Propeller  
Spinner



**F72369**  
Bf 109E Ace  
A. Galland and  
Mechanic

**M72009** Messerschmitt Bf 109E-4/7 Mask

**M72010** Messerschmitt Bf 109E-1/3 Mask

Special  
**MASK**

Special  
**HOBBY**



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