

P-40M Warhawk / Kittyhawk Mk.III

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.

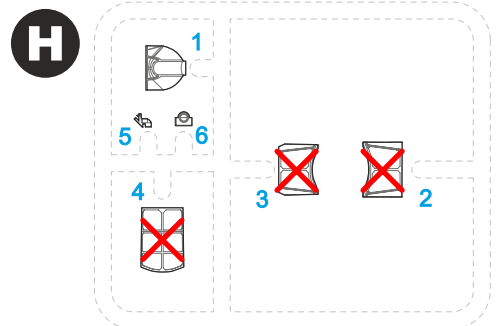
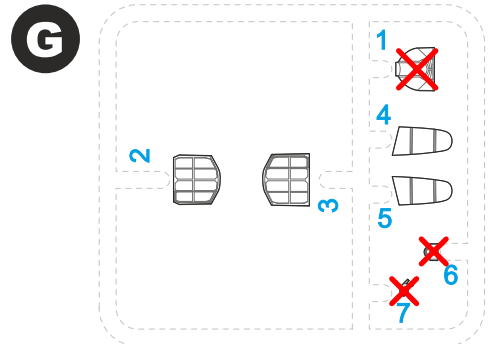
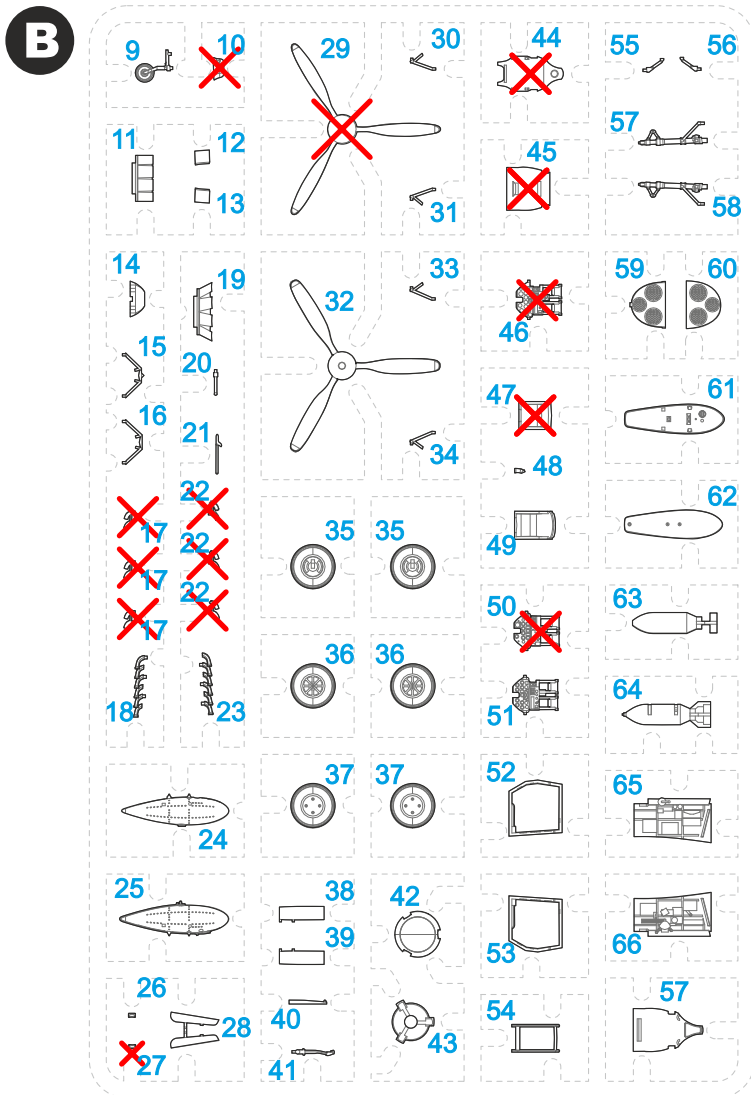
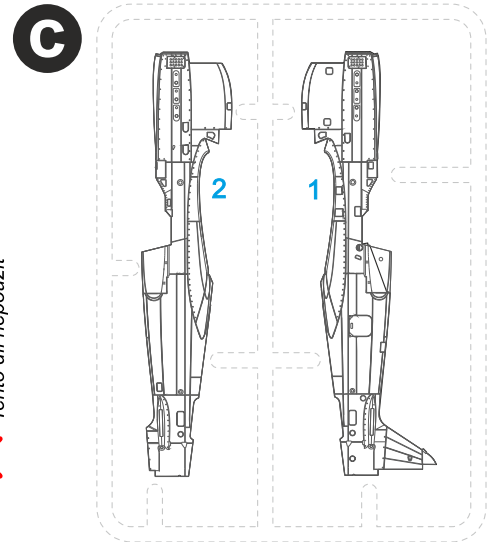
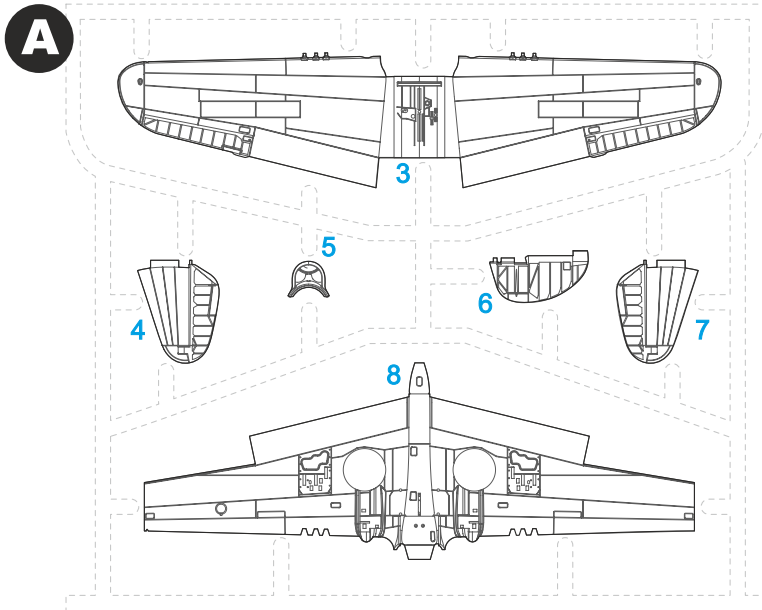
P-40K s motorem V-1710-73 byl vyráběn ve dvou provedeních, série K-1 až K-5 měly zvětšenou kýlovou plochu. K-10 a vyšší výrobní bloky měly prodloužený trup, podobně jako vyšší výrobní bloky P-40F. Na verzi K navázala odlehčená verze M s motorem V-1710-87. Britové obě verze označovali Kittyhawk Mk.III. 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



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

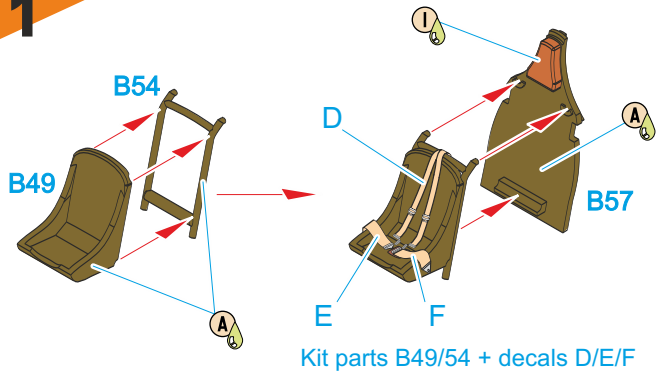
↪ BEND
OHNOUT
BIEGEN
COURBER

✋ SCRATCH BUILD
ZHOTOVIT NOVÉ
FERTIGSTELLEN
ACHEVER

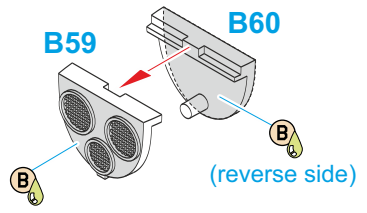
✂ CUT OFF/DRILL
ŘEZAT/VRTAT
ENTFERNEN
DETACHER

A COLOUR
NATRÍT
FARBEN
PEINDRE
GSI colours code

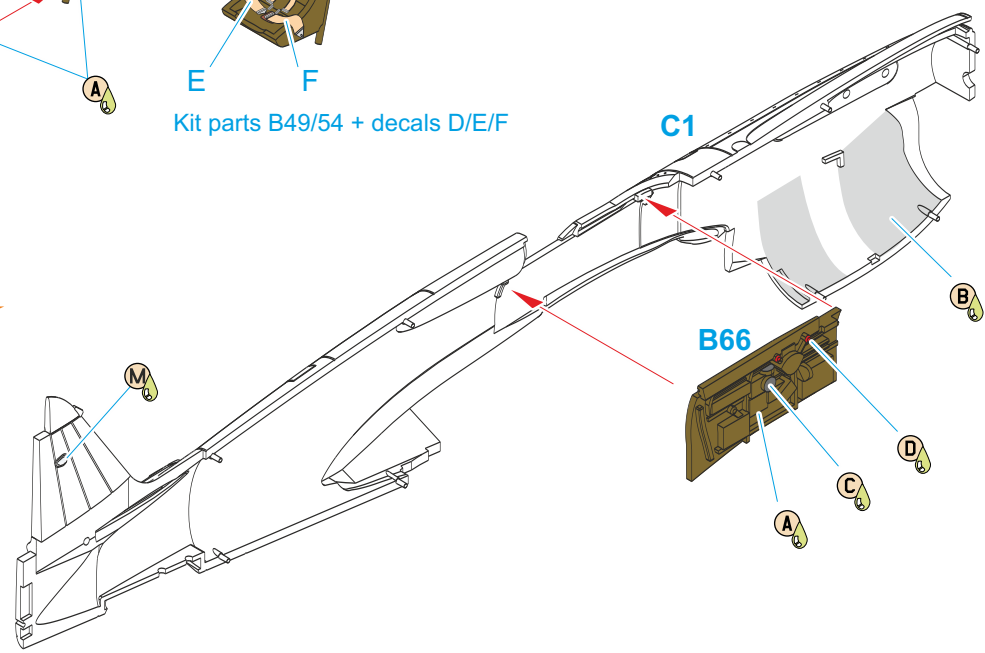
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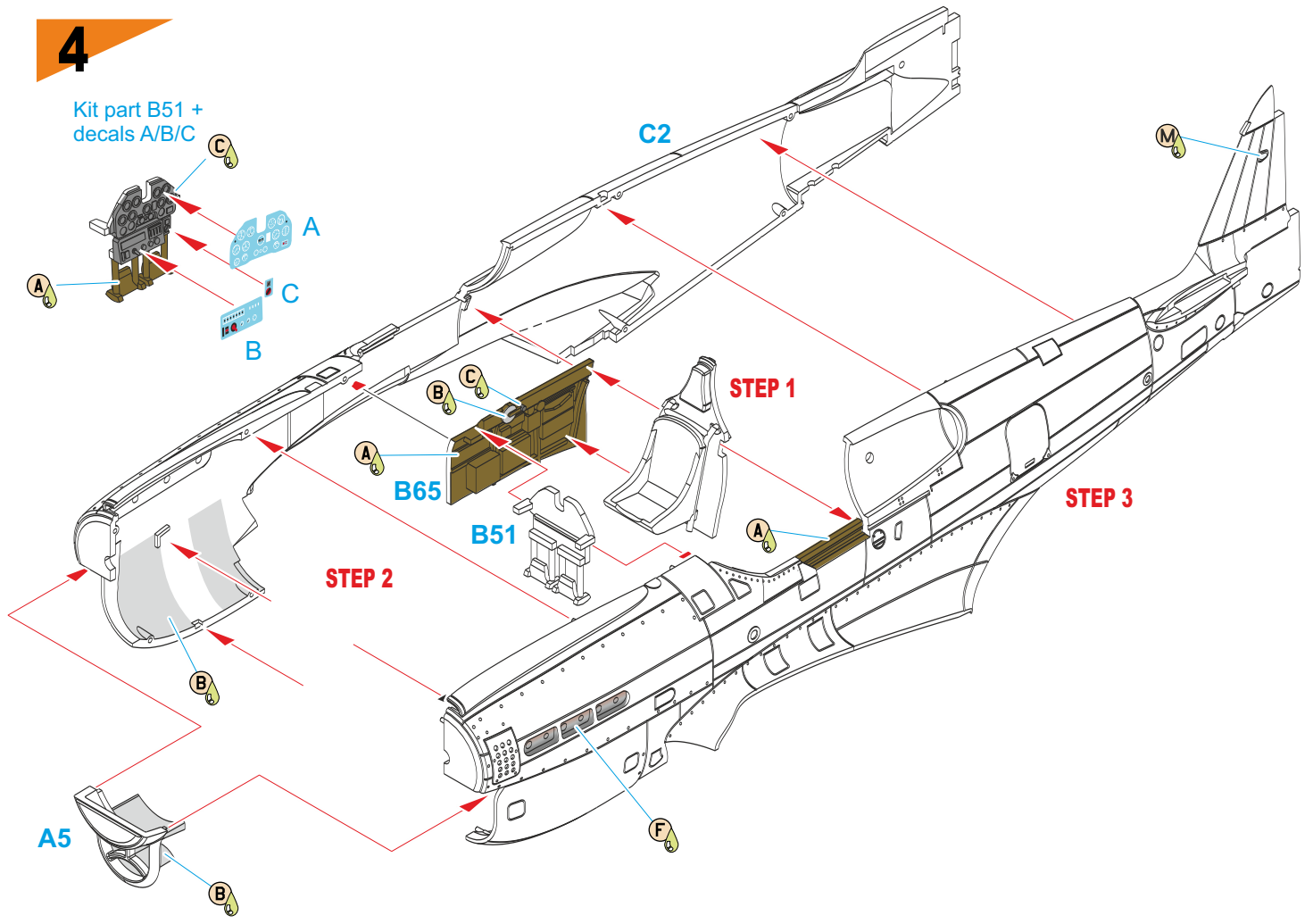
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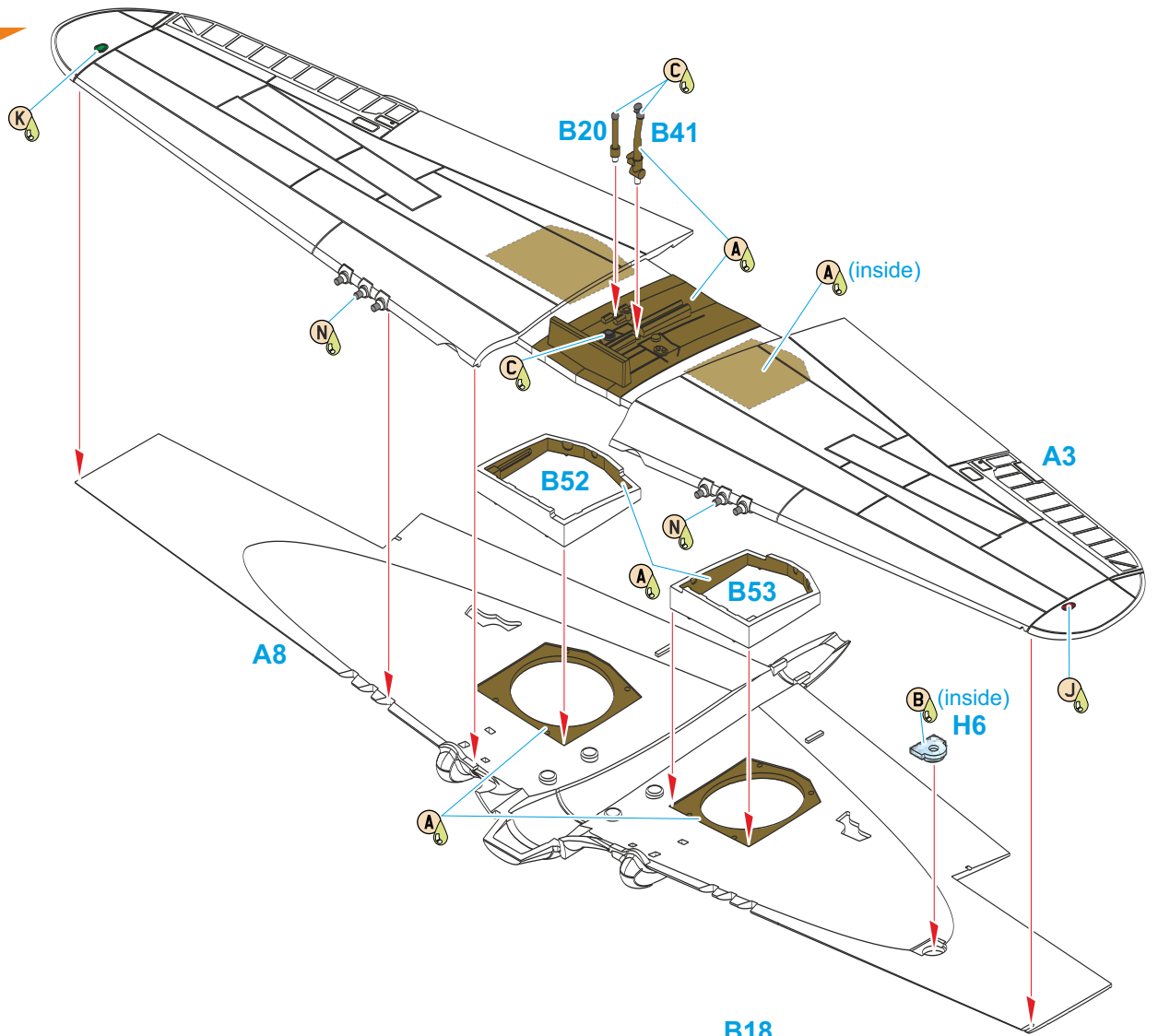
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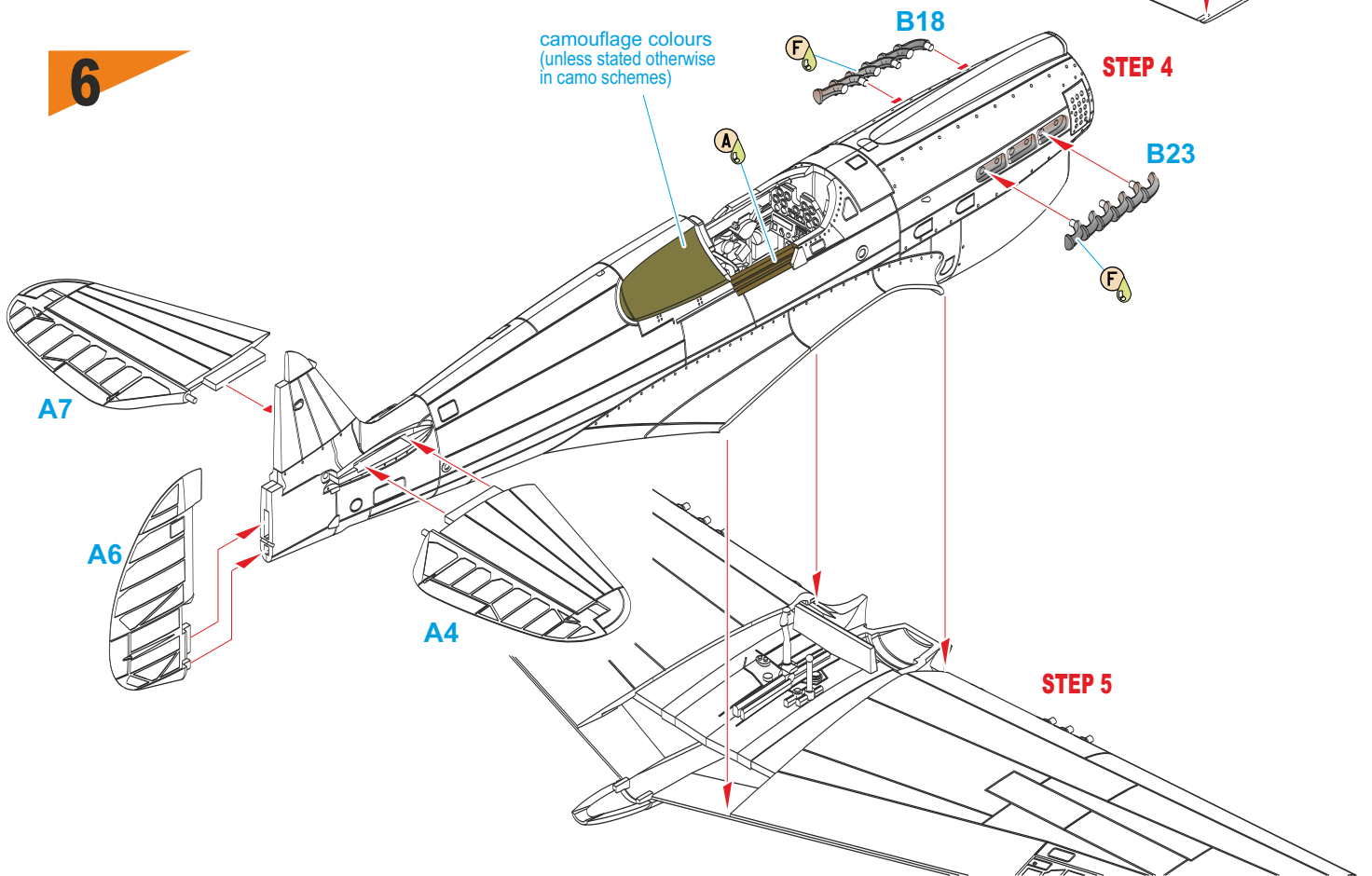
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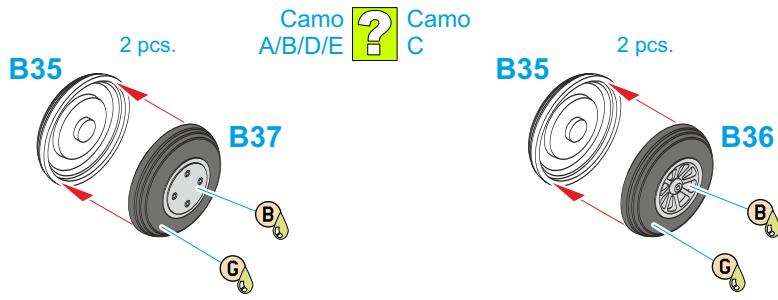
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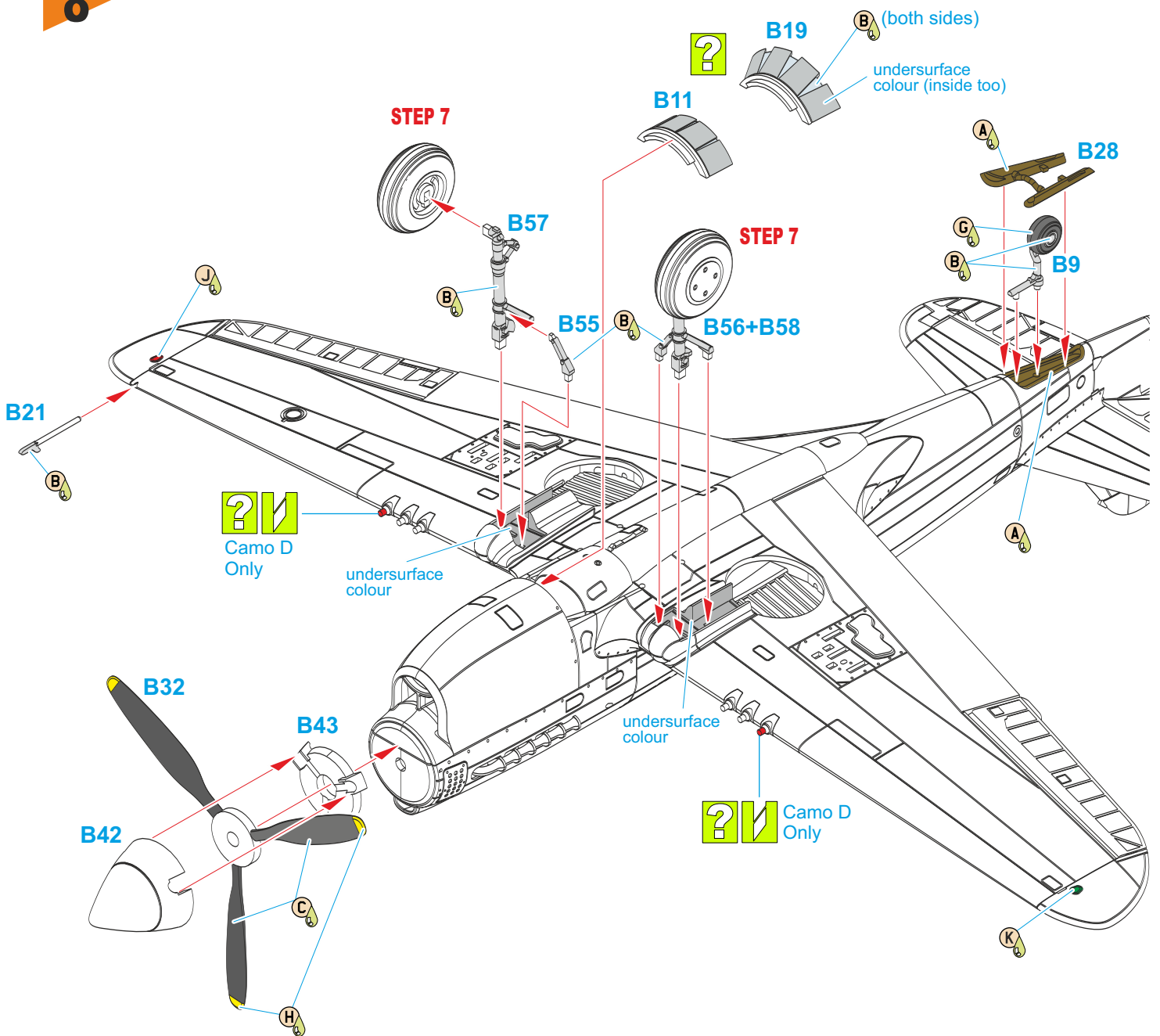
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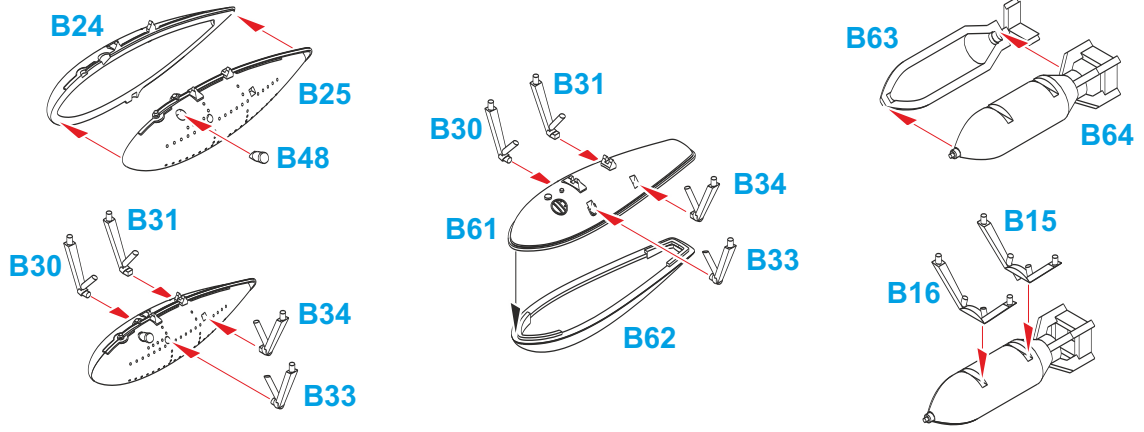
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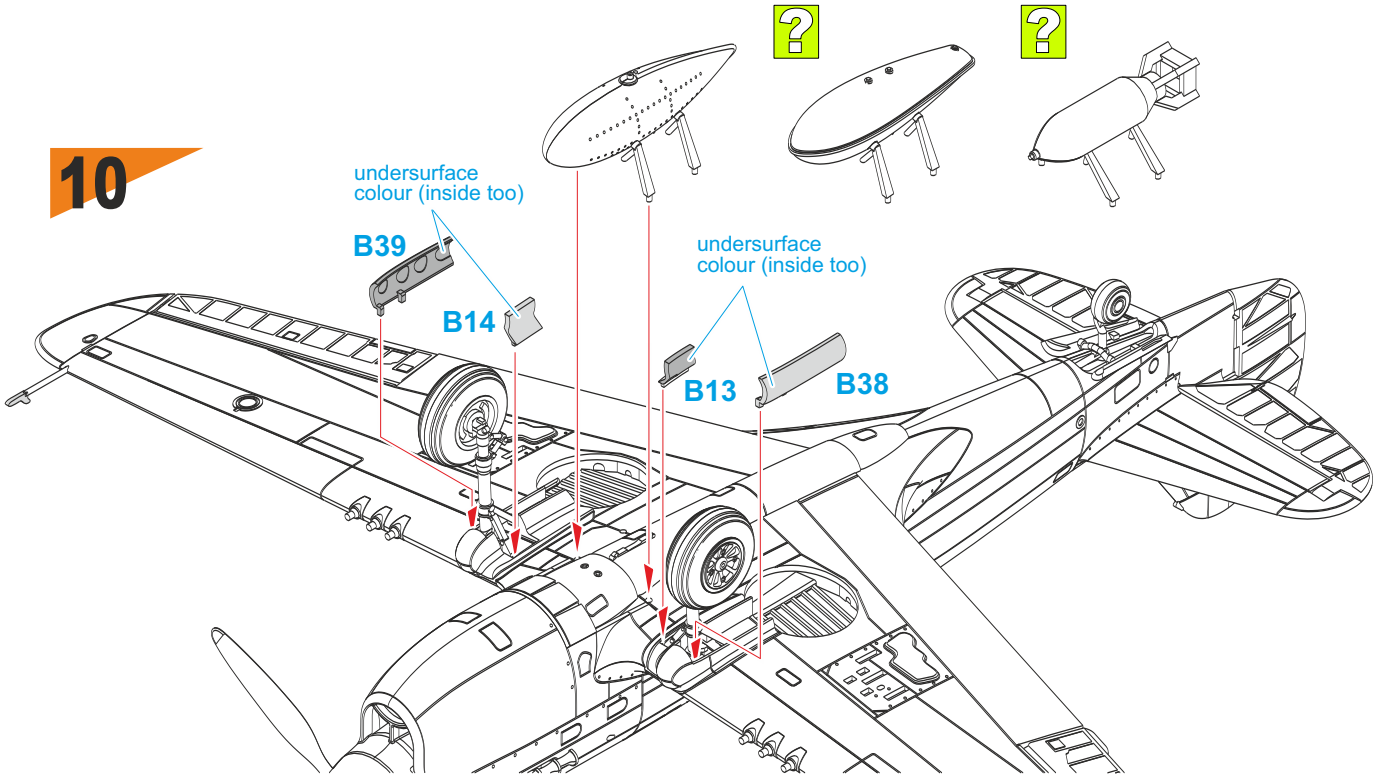
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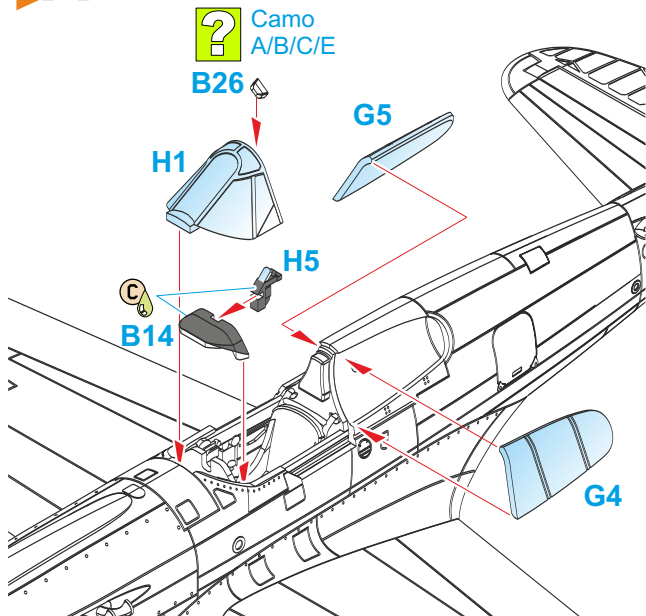
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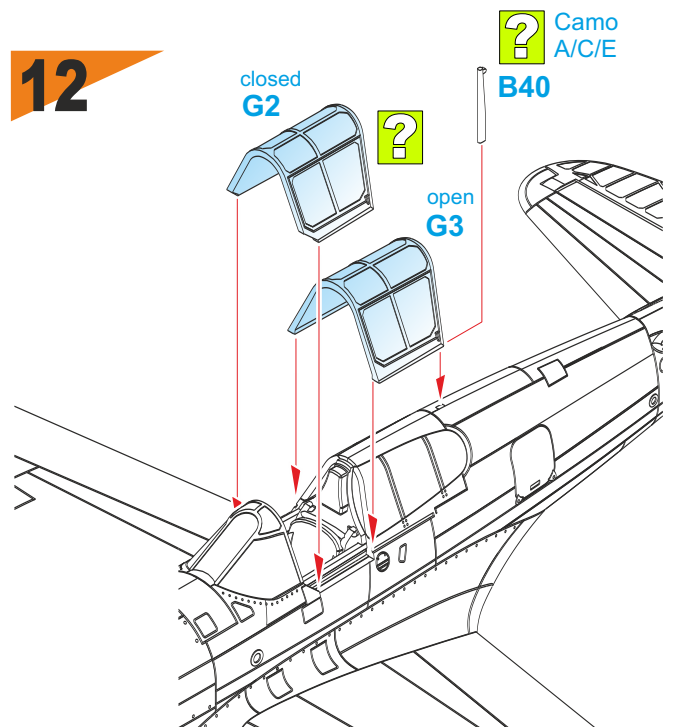
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11



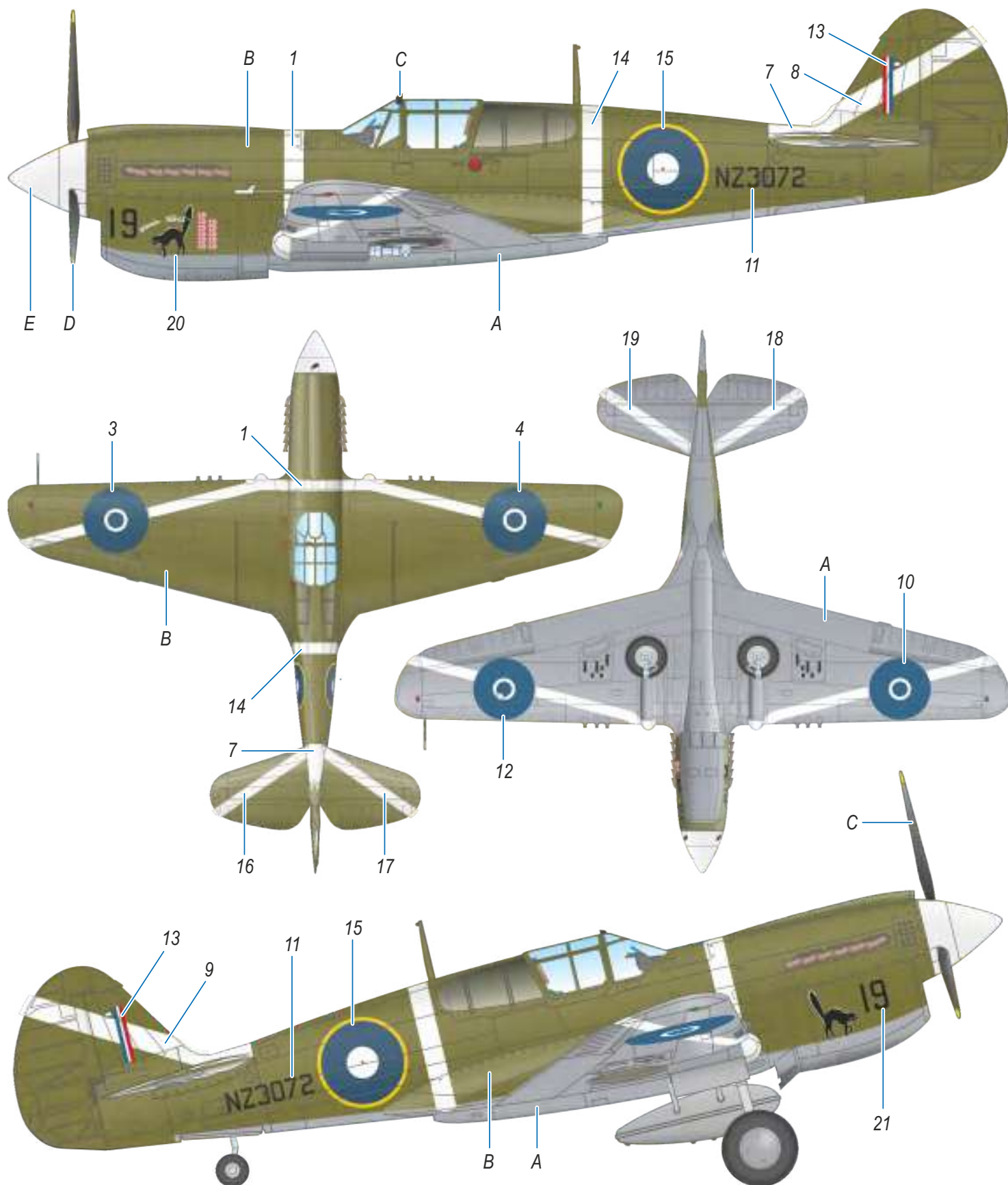
12



P-40M-5 Warhawk NZ3072/19, Wairarapa Wildcat, personal mount of Geoffrey B. Fiskens, DFC, 11 aerial victories, New Zealand's top scoring fighter pilot of the PTO, No 16 Sqn RNZAF, Espiritu Santo, Spring 1943. NZ3072 carried the emblem of a cat on either side of the nose while the Wairarapa Wildcat name and the score board were painted just on the port side. The white bands on the airframe were the ID markings of Allied aeroplanes in this area of the PTO.

P-40M-5 Warhawk NZ3072/19, Wairarapa Wildcat, osobní stroj nejlepšího novozélandského pilota pacifické oblasti, Geoffreya B. Fiskena, DFC (11 sestřelů), No.16 Sqn. RNZAF, Espiritu Santo, jaro 1943. Stroj NZ3072 byl ozdoben kresbou kočky na obou stranách krytu chladiče, symboly sestřelů a jméno Wairarapa Wildcat nesl jen na levé straně. Bílé pruhy byly rozpoznávacím znakem spojeneckých letounů v této oblasti Pacifického bojiště.

Camo A



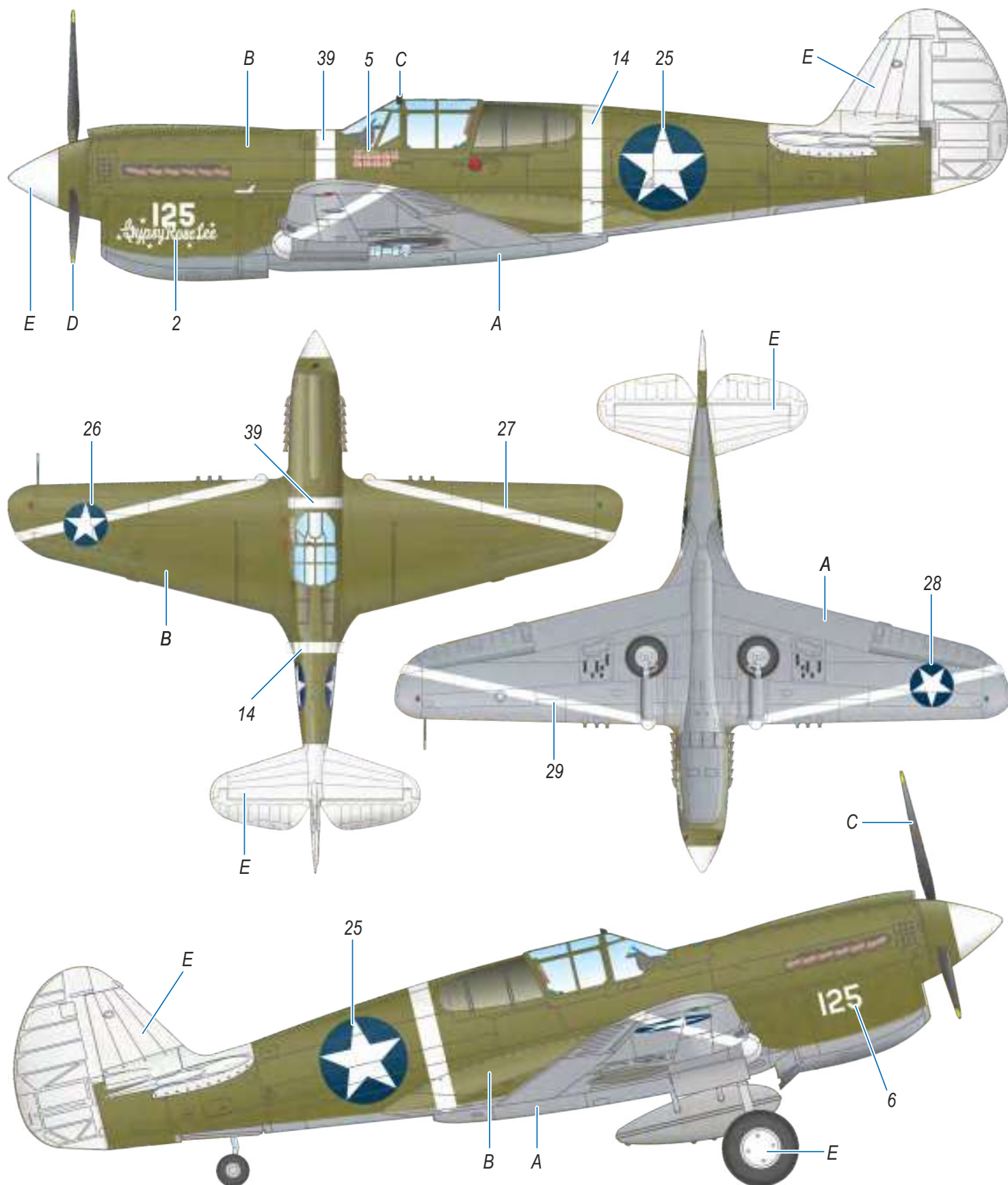
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|----------------------------------------------------|-----------------------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------------|
| A Neutral Gray
Neutrální šedá
H53/C13 | B Olive Drab
Nevýrazná olivová
H52/C12 | C Black
Černá
H12/C33 | D Yellow
Žlutá
H329/C329 | E Off White
Špinavě bílá
H21/C69 |
|----------------------------------------------------|-----------------------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------------|



P-40M Warhawk, unknown s/n, white 125, Gypsy Rose Lee, pilot Capt. Joseph J. Lesicka (9 victories), 44 FS, 18 FG, USAAF, Munda, 1943. Capt. Lesicka was one of two 44 FS's fighter aces who, on 15 July 1943 added two more to his five victories during a fight with Jap aircraft over the invasion beaches of the island of Munda. The name of his aeroplane derives from a famous burlesque dancer of the time, Gypsy Rose Lee.

P-40M Warhawk, sériové číslo neznámé, bílá 125, Gypsy Rose Lee, pilot Capt. Joseph J. Lesicka (9 sestřelů), 44. FS, 18. FG, USAAF, Munda, 1943. J. Lesicka byl jedním ze dvou es dne 15. července 1943 přidal k svým sestřelům pět dalších v boji s japonskými letouny nad invazními plážemi ostrova Munda. Svůj stroj pojmenoval po známé burleskní tanečnici Gypsy Rose Lee.

Camo B



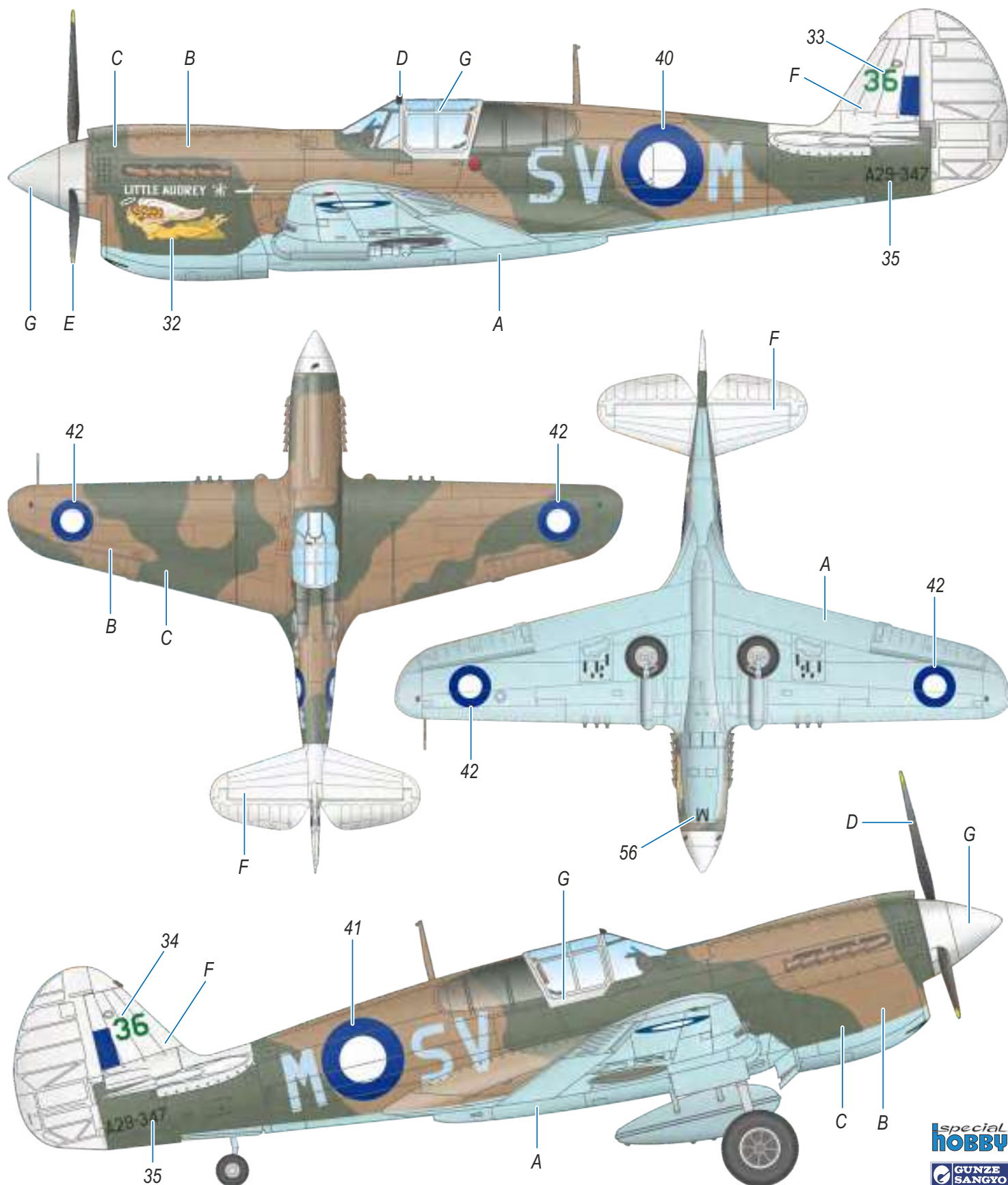
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|----------------------------------------------------|-----------------------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------------|
| A Neutral Gray
Neutrální šedá
H53/C13 | B Olive Drab
Nevýrazná olivová
H52/C12 | C Black
Černá
H12/C33 | D Yellow
Žlutá
H329/C329 | E Off White
Špinavě bílá
H21/C69 |
|----------------------------------------------------|-----------------------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------------|



Kittyhawk A29-347 (P-40M), SV-M/36, Little Audrey, flown by F/Sgt. Howard O'Meara, No 76 Sqn. RAAF, Momote Strip, Los Negros Island, 1944. Over time, No 76 Sqn had three different machines on its strength, all of them carrying the same name of Little Audrey, this is the first one of them. It sported an interesting feature of the propeller spinner and sliding canopy section left in the natural colour of metal.

Kittyhawk A29-347 (P-40M), SV-M/36, Little Audrey, pilot F/Sgt. Howard O'Meara, No.76 Sqn. RAAF, Momote Strip, ostrov Los Negros, 1944. V rámci No.76 Sqn. létaly postupně tři stroje se jménem Little Audrey. Toto je první z nich. Stroj byl zajímavý kuzelem vrtule a odsuvnou částí překrytu kabiny v barvě kovu.

Camo C



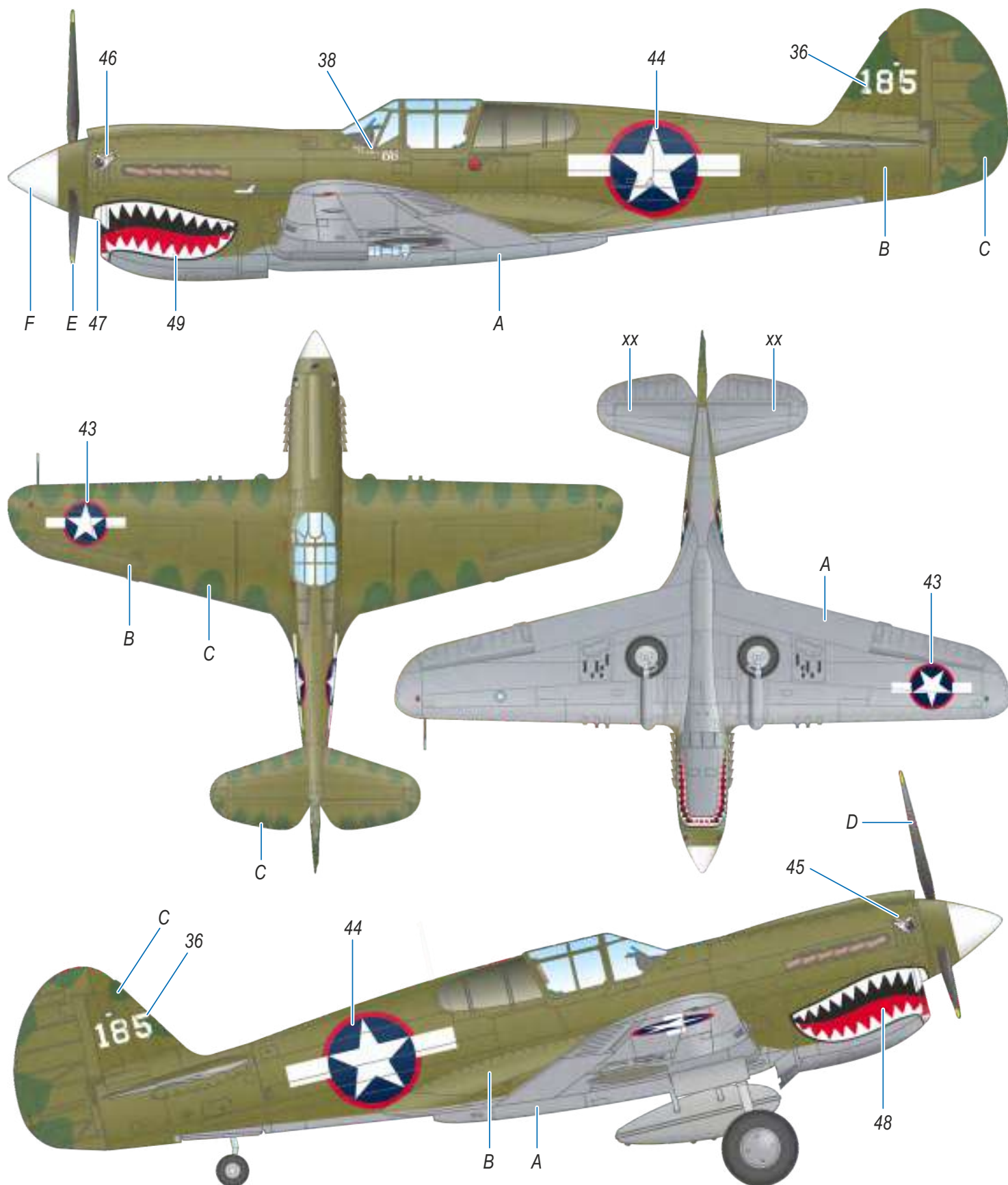
- | | | | | | | |
|-------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------------|------------------------------------------|
| A Sky Blue
Nebeský modrá
H314/C314 | B Dark Earth
Tmavě zemitá
(DuPont 71009)
H72/C22 | C Dark Green
Tmavě zelená
(DuPont 71013)
H73/C23 | D Black
Černá
H12/C33 | E Yellow
Žlutá
H329/C329 | F Off White
Špinavě bílá
H21/C69 | G Aluminium
Hliníková
H8/C8 |
|-------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------------|------------------------------------------|



P-40M Warhawk, No. 185, flown by 1Lt. Christopher Sullivan 'Sully' Barrett, 75 FS, 23 FG, China, Autumn 1943. Before his arrival to China, Ch.S. Barrett served with the USAAF in Panama and Peru. Later when in China, he achieved two confirmed and two more probable aerial victories. Following his return to the USA, he flew as a P-38 test pilot. The machine depicted in our scheme had two machine guns removed to save some weight.

P-40M Warhawk, No. 185, pilot 1Lt. Christopher Sullivan, 'Sully' Barrett, 75. FS, 23.FG, Čína, podzim 1943. Ch.S. Sully před příjezdem do Číny létal jako pilot USAAF v Panamě a Peru. V Číně dosáhl dvou jistých a dvou pravděpodobných sestřelů. Po návratu do USA v roce 1944 působil jako testovací pilot letounů P-38. Stroj P-40M No. 185, na kterém v Číně létal, byl odlehčen vymontováním dvojice kulometů.

Camo D



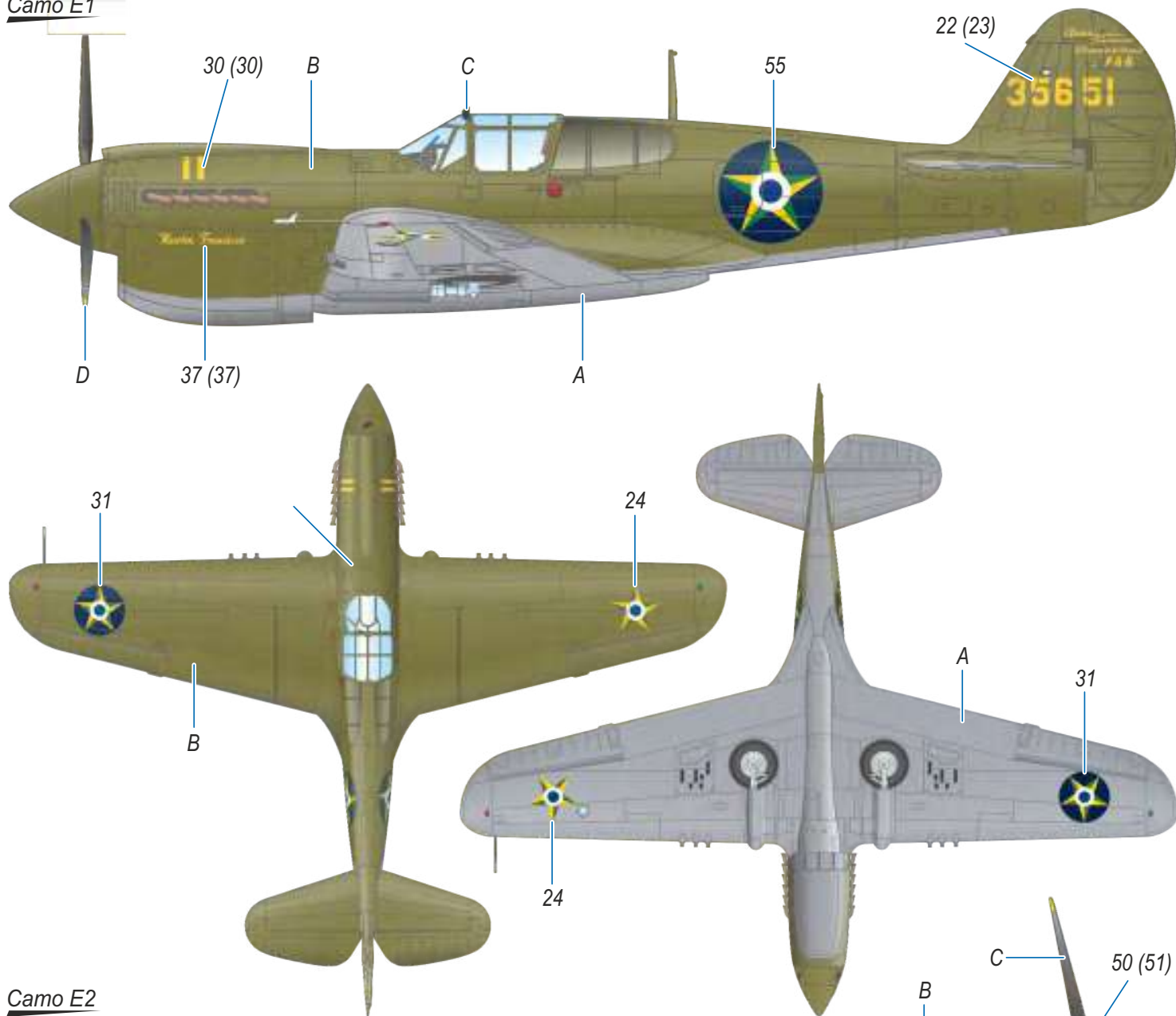
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|----------------------------------------------------|-----------------------------------------------------|------------------------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------------|
| A Neutral Gray
Neutrální šedá
H53/C13 | B Olive Drab
Nevýrazná olivová
H52/C12 | C Medium Green
Střední zelená
H302/C302 | D Black
Černá
H12/C33 | E Yellow
Žlutá
H329/C329 | F Off White
Spinavě bílá
H21/C69 |
|----------------------------------------------------|-----------------------------------------------------|------------------------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------------|



P-40M Warhawk, No.II/FAB32 (4051), ex USAAF 43-5651, I. Grupo Monoposto-Monomotor, FAB (Brazilian Air Force), based at Natal, Brazil, 1943. This P-40 had been bought as well as many other machines from public fund-raising campaigns such as the one called 'Pró-Avião', organized by Finance Minister Arthur de Souza Costa. In fact, it was the employees of the Ministry of Finance who raised the funds needed to buy this particular machine, as is shown by the presentation slogans on the rudder and even the name of Brazil's very first Finance Minister, Martim Francisco Ribeiro de Aranda on the cowl.

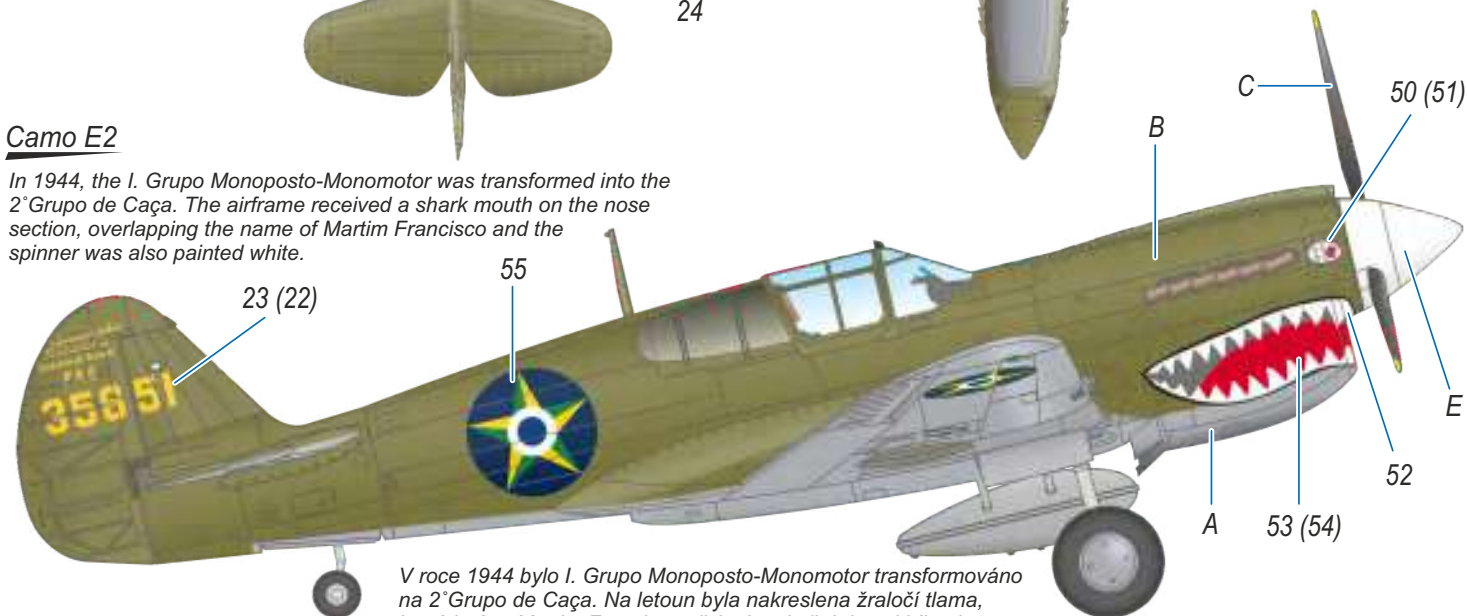
P-40M Warhawk, No.II/FAB32 (4051), ex USAAF 43-5651, I. Grupo Monoposto-Monomotor, FAB (Brazilské letectvo) základna Natal, Brazílie, 1943. Tato P-40 byla zakoupena, jako jiné stroje, z veřejných sbírek, jako byla sbírka 'Pró-Avião, organizovaná ministrem financí Arthurem de Souza Costa. Na tento stroj se složili přímo zaměstnanci ministerstva financí. To připomínají dedikační nápisy na kormidle SOP a jméno Martim Francisco na přídě. (Martim Francisco Ribeiro de Aranda byl vůbec prvním brazilským ministrem financí).

Camo E1



Camo E2

In 1944, the I. Grupo Monoposto-Monomotor was transformed into the 2º Grupo de Caça. The airframe received a shark mouth on the nose section, overlapping the name of Martim Francisco and the spinner was also painted white.



V roce 1944 bylo I. Grupo Monoposto-Monomotor transformováno na 2º Grupo de Caça. Na letoun byla nakreslena žraločí tlama, které jméno Martim Francisco překryla a kužel dostal bílou barvu.

A Neutral Gray Neutrální šedá H53/C13	B Olive Drab Nevýrazná olivová H52/C12	C Black Černá H12/C33	D Yellow Žlutá H329/C329	E Off White Špinavě bílá H21/C69
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Universal Stencil Placement Scheme

