

NÁVOD / INSTRUCTION

Ju 88C-4

1/48

Historie

Německá Luftwaffe před druhou světovou válkou zavedla do výzbroje dvě kategorie stíhacích letadel. Vedle jednomotorových stíhaček tehdy představovaných stroji Messerschmitt Bf 109 verzí B až E to byly stroje kategorie nazvané Zerstörer. Tak pojmenovala Luftwaffe dvumotorové, silně vyzbrojené těžké stíhačky. Před válkou byly hlavním typem této kategorie stroje Messerschmitt Bf 110. V průběhu roku 1940 se ukázalo, že na některé úkoly Bf 110 nestačí. Luftwaffe v té době používala jako rychlý bombardér (schnellbomber) Junkers Ju 88A. Vysoké výkony tohoto bombardéru přímo vybízely k přestavbě na těžký stíhač. Toho si byli konstruktéři firmy Junkers vědomi a již v roce 1938 otestovali odlehčený prototyp Ju 88V-7 s výzbrojí kanonu ráže 20 mm a tři kulometů ráže 7,9 mm v tehdy ještě prosklené přídi. Další dva testované stíhací stroje Ju 88V-15 a V-19 měly již plechovou oblou příď, zalétány byly v roce 1940. Po úspěšných testech se rozeběhla sériová výroba, respektive spíše přestavba dvaceti strojů Ju 88A-1 na stíhací Ju 88C-2. Tato verze měla křídlo s menším rozpětím a byla vyzbrojena kanonem a třemi kulometry. Stejnou výzbroj měla i následující stíhací verze, označená Ju 88C-4. Byla stavěna na základě verze Ju 88A-5. Díky tomu kombinovala křídlo s větším rozpětím se starším typem motorů Jumo 211F nebo G. Stroje používaly různé varianty překrytu kabiny, některé měly zesílenou výzbroj dvěma kanony v trupové gondole. Vzniklo 120 kusů Ju 88C-4. Varianta Ju 88C-5 byla vyrobena jen v deseti kusech. Hlavní sériovou verzí se stala Ju 88C-6. Ta byla vyráběna ve variantách Ju 88C-6a pro denní, Ju 88C-6b a Ju 88C-6c pro noční stíhání (verze se lišily použitými radary). Křídlo a motory Jumo 211J-1 a J-2 odpovídaly verzi Ju 88A-4. Poslední variantou byla Ju 88C-7 určená pro denní akce. První Ju 88C-2 a C-4 byly zařazeny k nově vzniklým nočním stíhacím jednotkám NJG-1 a NJG-2. Byly používány hlavně jako noční intrudery nad Britskými ostrovy a ve Středomoří. Stroje se v těžkých podmínkách nočního stíhání osvědčily. Svědčí o tom dosažená vítězství, získaná většinou za podmínek létání nad nepřátelským územím, kdy se piloti a další členové osádek Ju 88 orientovali pouze zrakem. Radary nesly až noční stíhací verze Ju 88C-6, které také starší verze nahradily. Jako noční stíhačky byly Ju 88C-6 velmi nebezpečné. Denní varianta Ju-88C-6a byla používána jako dálková stíhací a stíhací bitevní jak na východní, tak západní frontě. I tato varianta byla velmi úspěšná. Zejména osamocené protiponorkové britské stroje nad Biskajským zálivem se museli mít před skupinami Ju 88C-6 Z KG 40 na pozoru.

TTD Ju 88C-4

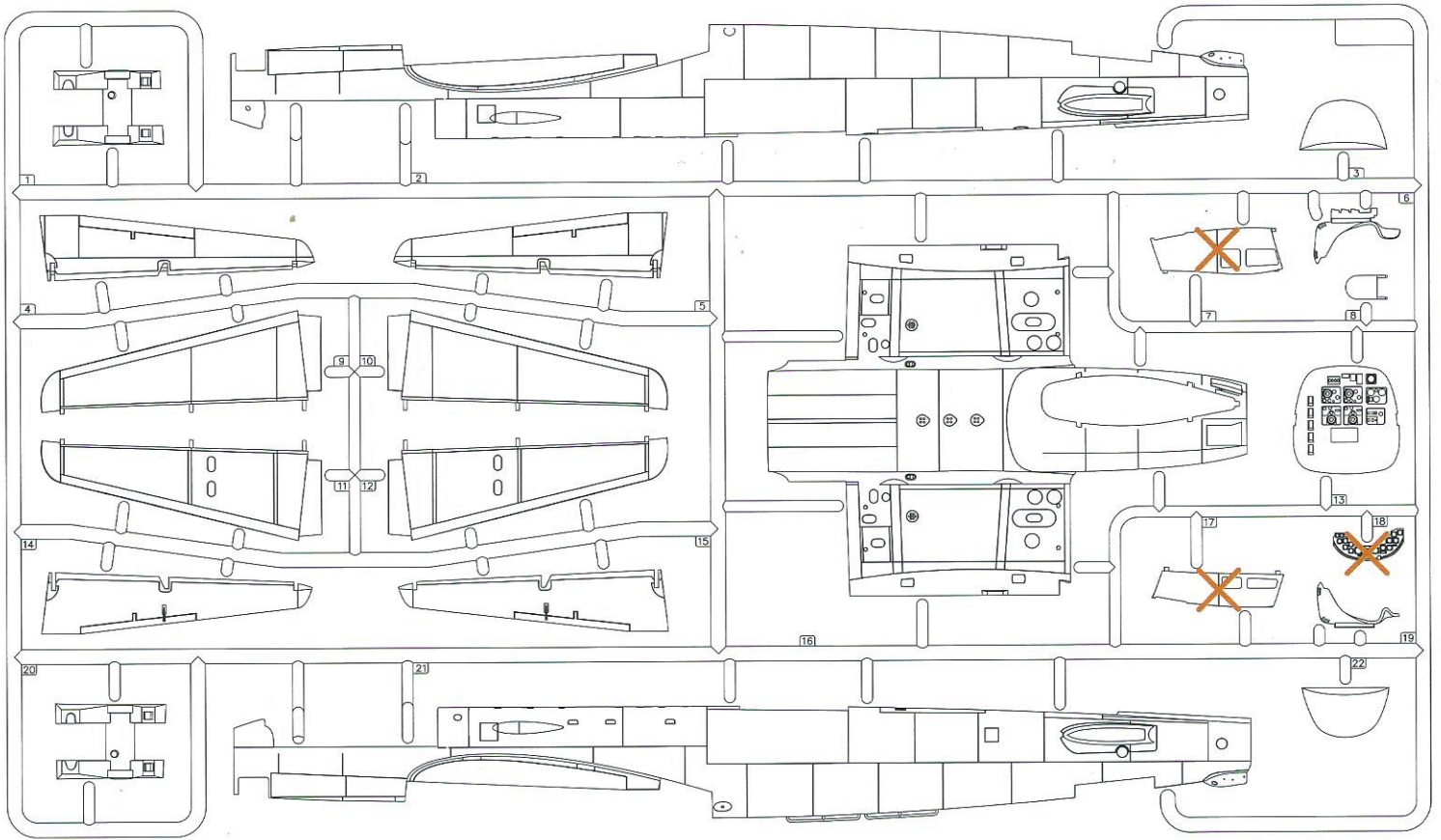
rozpětí: 20,08 m, délka: 14,36 m, max. rychlost: 475 km/h, dostup: 10 000 m, dolet: 1040 km

History

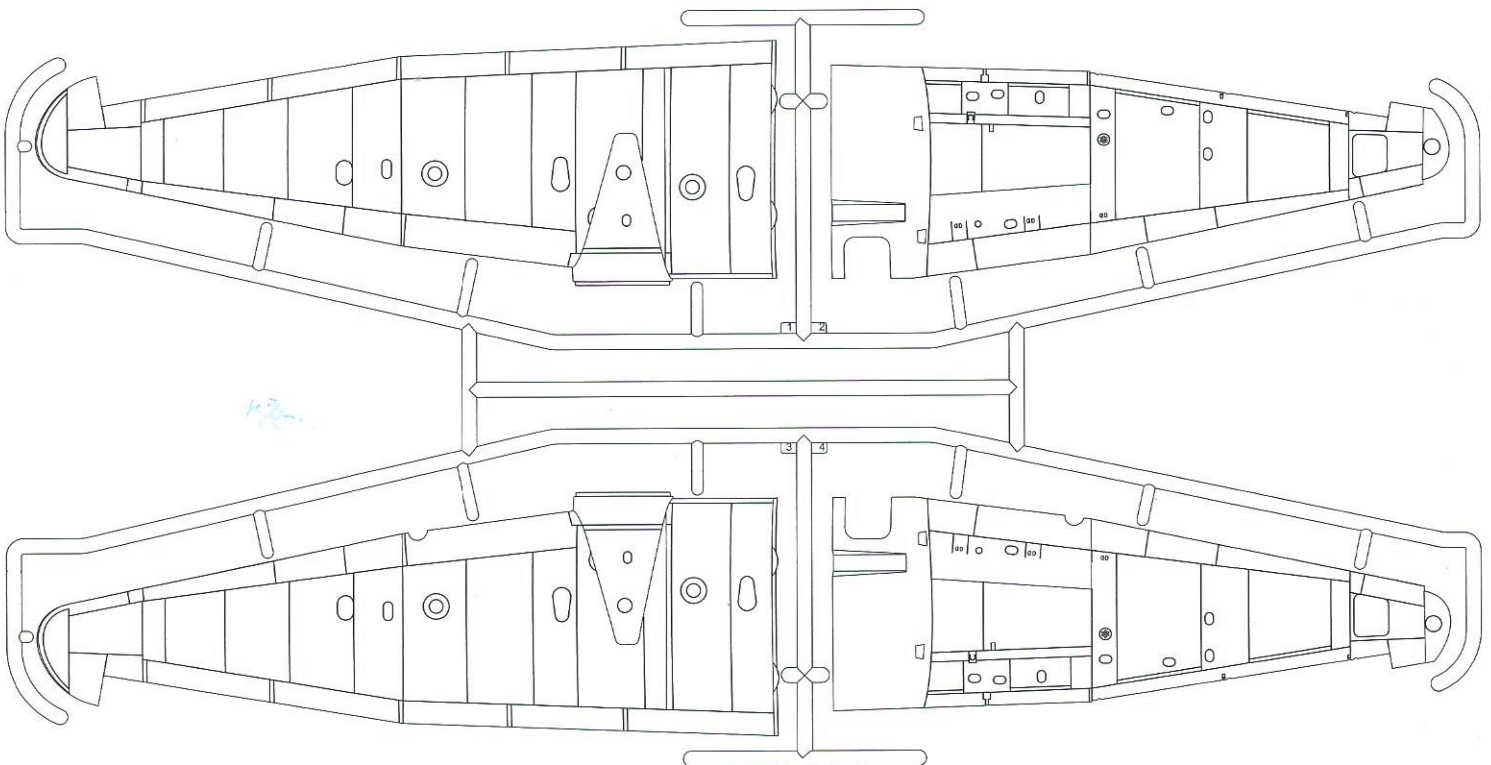
In the years before the outbreak of WW2, the German Luftwaffe introduced into service two categories of fighter planes. Besides the single-engined fighter types such as the Messerschmitt Bf 109s, there were also twin-engined, heavily armed fighters of the Zerstörer (destroyer in English) category put into the service. The most well known Zerstörer type of the pre-war era was the Messerschmitt Bf 110. During 1940, it became clear that the type could not cope successfully with some of its assigned tasks due a lack of speed. At that time, the Luftwaffe's main high-speed bomber (schnellbomber) was the Junkers Ju 88A, and its performance was such that it was clear that it could be easily converted into a heavy fighter too. The Junkers designers were well aware of the fact, and as early as 1938 they carried out a series of flight tests using the V-7 prototype with lower overall weight, and armed with one 20mm cannon and three 7.9mm machine guns in the glass nose section, later to be followed by two more prototype machines, the V-15 and V-19 with sheet metal covered nose. Following the successful tests production was commenced, by converting 20 Ju 88A-1 machines to Ju 88C-2 fighter specification. These airframes were fitted with shorter-span wings, a cannon and three MGs. The same type of armament was used also with the later fighter version designated as the Ju 88C-4, which was built from the specification of the Ju 88A-5 bomber variant and featured a standard span wing with earlier Jumo 211F or G powerplants. The machines had various styles of the canopy, and some of them were produced with heavier armament of two cannon in an under-fuselage gondola. The production run ended with a total of 120 C-4 airframes and only ten airframes of the C-5 variant. The main production variant was the Ju 88C-6, built in the C-6a day fighter subvariant and C-6b and C-6c night fighter variants which differed only by the type of their radar equipment. Their wings and Jumo 211J-1 and J-2 powerplants were identical to those of the A-4 version. The production of the Ju-88C line ended with the C-7 machines that were specialised for day-time missions. The first Ju 88C-2 and C-4 machines were put on strength of newly-established night fighter units NJG-1 and NJG-2 and were used mainly in the night intruder role over the British Isles and in the Mediterranean. The machines did very well in difficult night fighting conditions, achieving several victories, mostly over enemy territory with their only means of finding the enemy their eyesight. It was only the later Ju 88C-6 version that was equipped with radar, and this version replaced the earlier dash Two and dash Four variants. The C-6 night fighter machines were particularly dangerous to the Allies, the C-6a subvariant was used in the long range day fighter role and fighter attack role both on the Western and Eastern fronts and was no less successful. Especially those lonely flying British anti-submarine aircraft operating over the Bay of Biscay had to be on their guard against packs of Kampfgeschwader 40 Ju 88C-6 machines.

Wingspan: 20,08 m, Length: 14,36 m, Max. Speed: 475 km/h, Ceiling: 10 000 m, Range: 1040 km

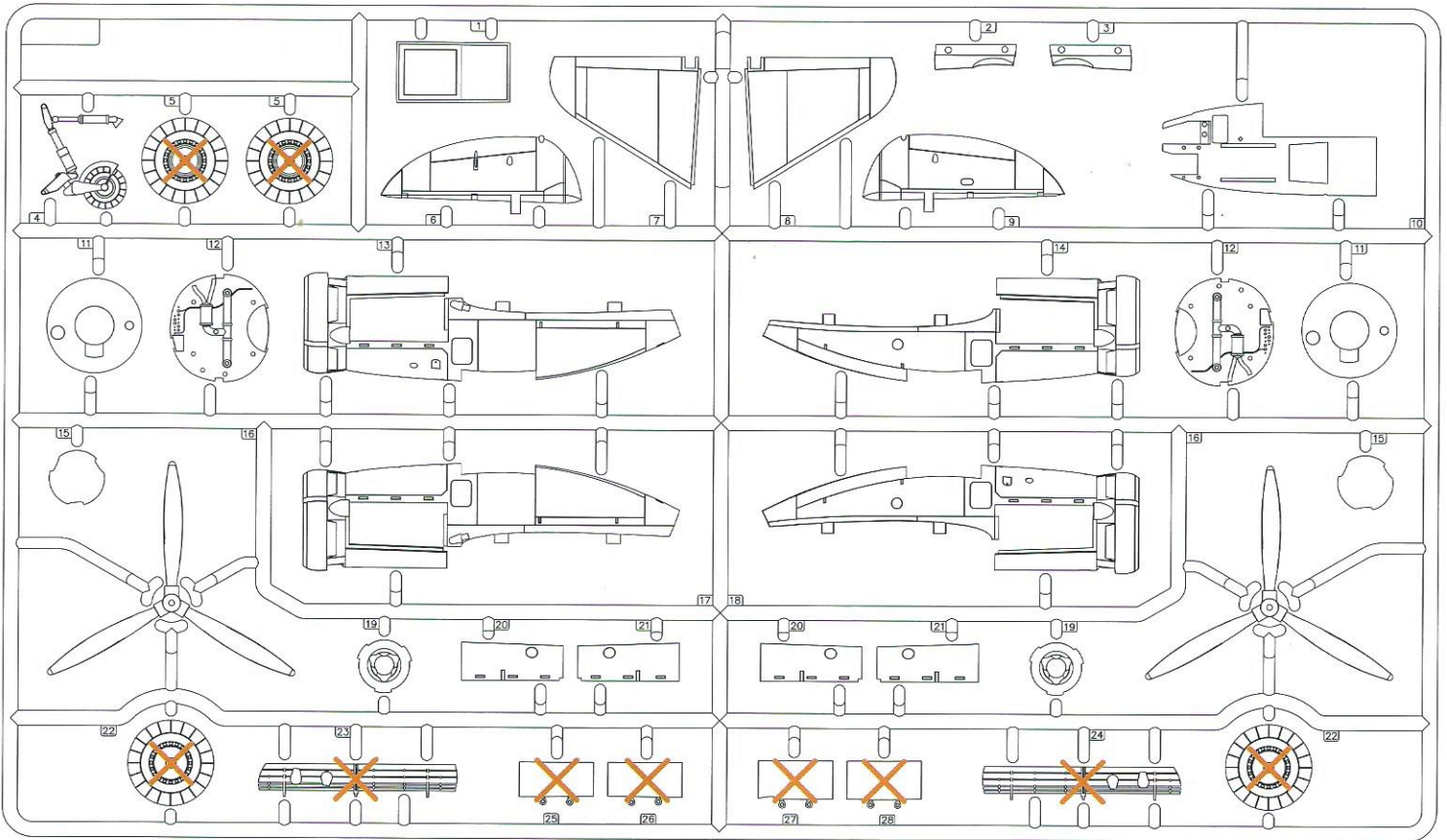
Plastic Parts A



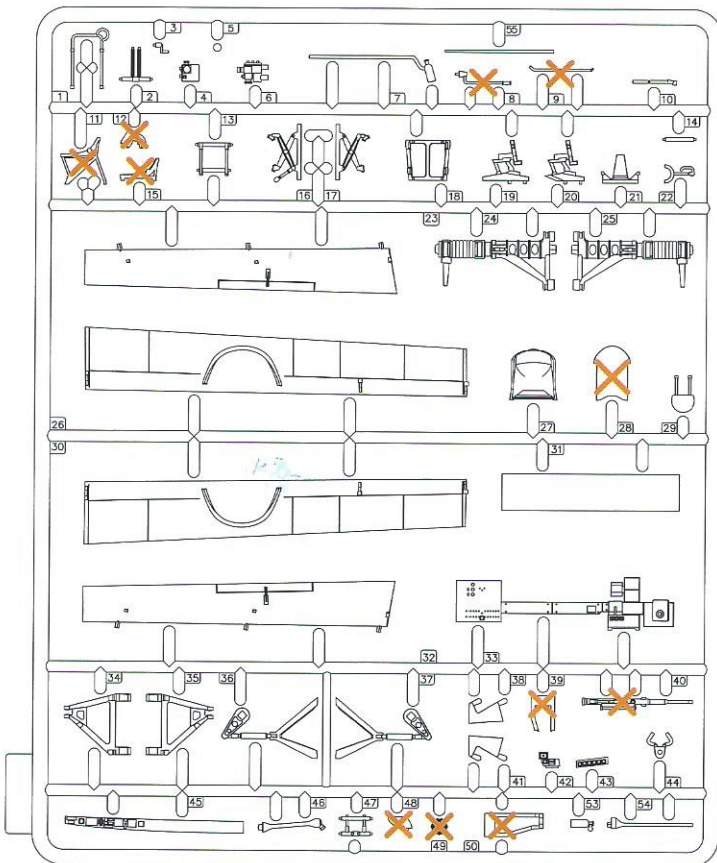
Plastic Parts B



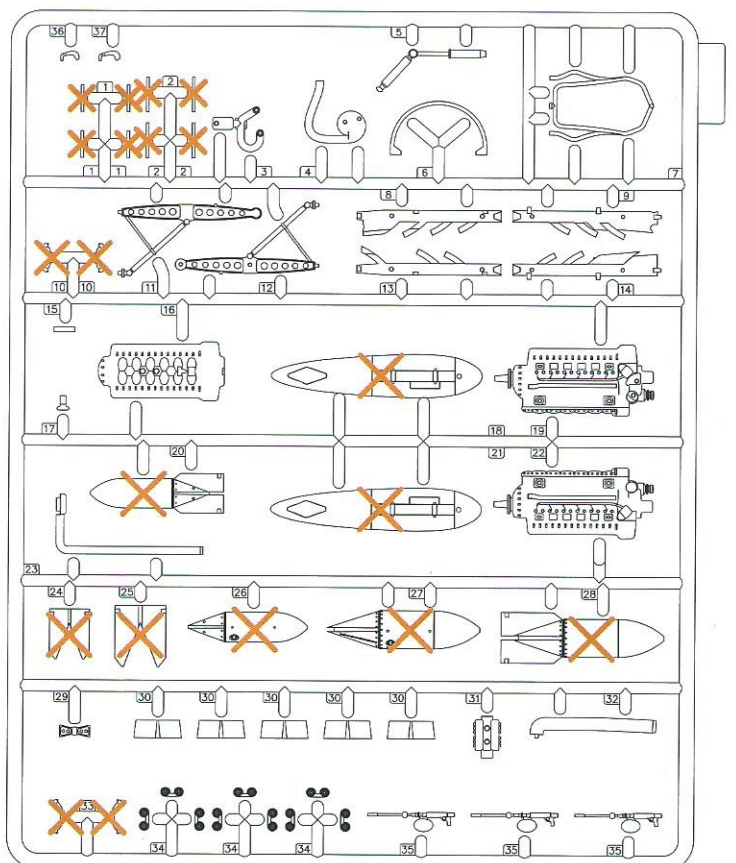
Plastic Parts C



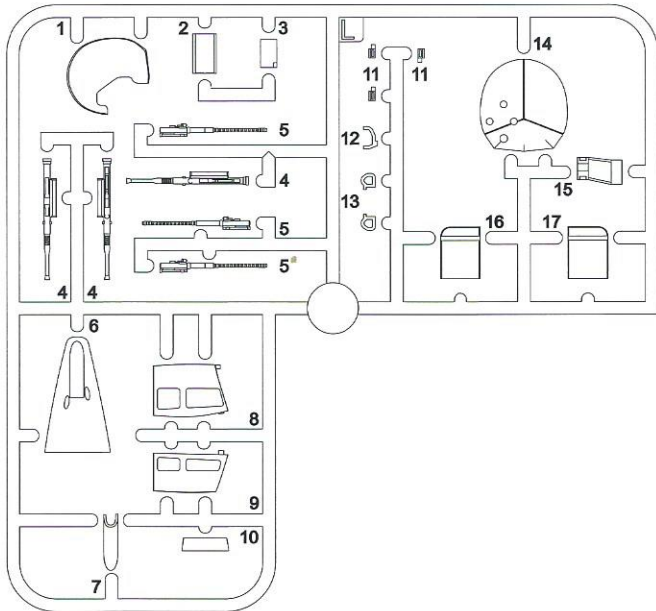
Plastic Parts D



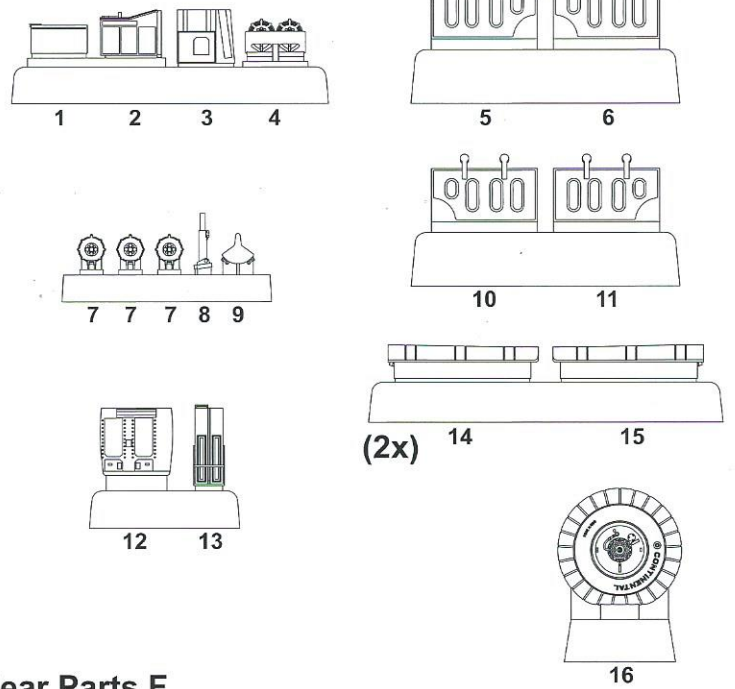
Plastic Parts E (2x)



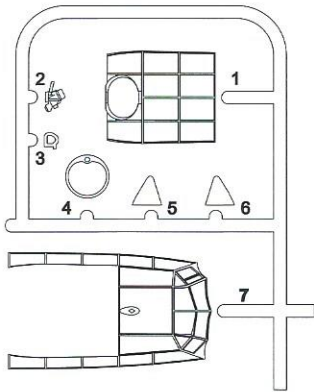
Plastic Parts L



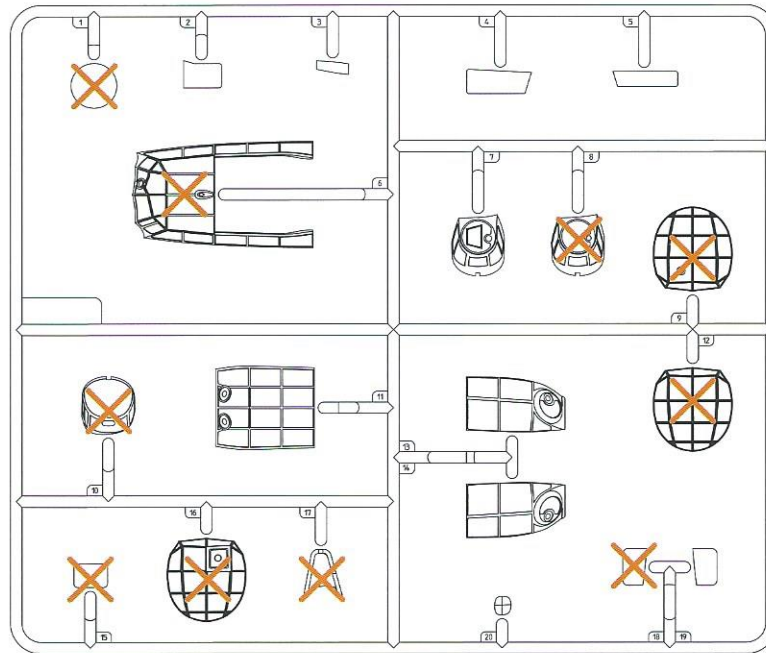
PUR Parts



Clear Parts M



Clear Parts F



Tento díl
nepoužít



Do not use
this part

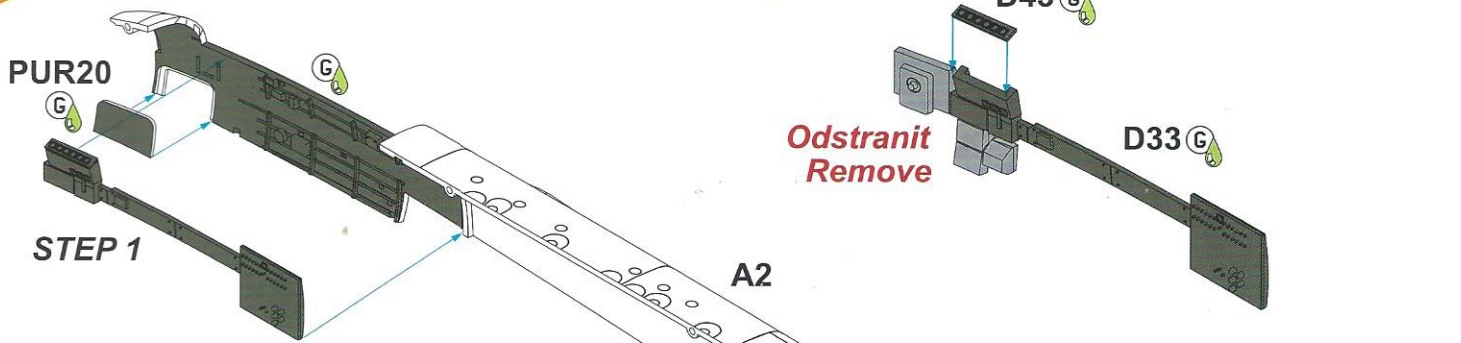
Barvy GUNZE/ GUNZE Colour No.

A Černá / Black	H12 / C33	F Světle modrá / Light Blue	C117	K Červená / Red	H3 / C3
B Barva pneu / Tire Black	H77 / C137	G Černo šedá / Black Grey	C116	L Opálený kov / Burnt Iron	H76 / C61
C Špinavá bílá / Off White	H21 / C69	H Šedá / Grey	H70 / C60	M Barva kovu / Steel	H28 / C78
D Tmavá šedá / Dark Grey	H68 / C36	I Kovová šedá / Gun Metal	H28 / C78	N Černo zelená / Black Green	H65 / C18
E Šedá / Grey	H69 / C37	J Žlutá / Yellow	C113	O Barva kůže / Leather	H17 / C29

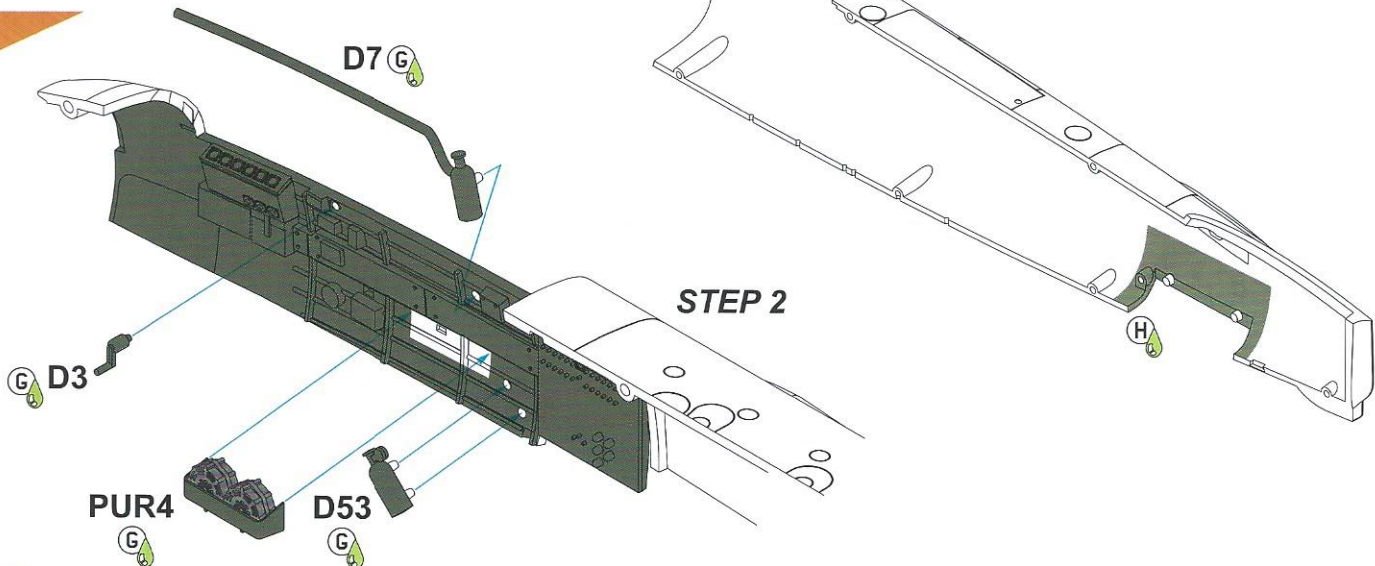
SYMBOLS

? MOŽNOST VOLBY OPTIONAL NACH BELIEBEN OPTION	👉 POUŽÍT KYANOAKRYLÁTOVÉ LEPIDLO INSTANT CYANOACRYLATE GLUE ZYANOAKRYLATKLEBER COLLE CYANOACRYLAT	↪ OHNOUT BEND BIEGEN COURBER	👤 ZHOTOVIT NOVÉ SCRATCH BUILD FERTIGSTELLEN ACHEVER	🔪 ŘEZAT/VRTAT CUT OFF/DRILL ENTFERNEN DETACHER	🏷️ GSI colours code	🎨 NATŘÍT COLOUR FARBEN PEINDRE
---	---	--	---	--	-------------------------------	--

2



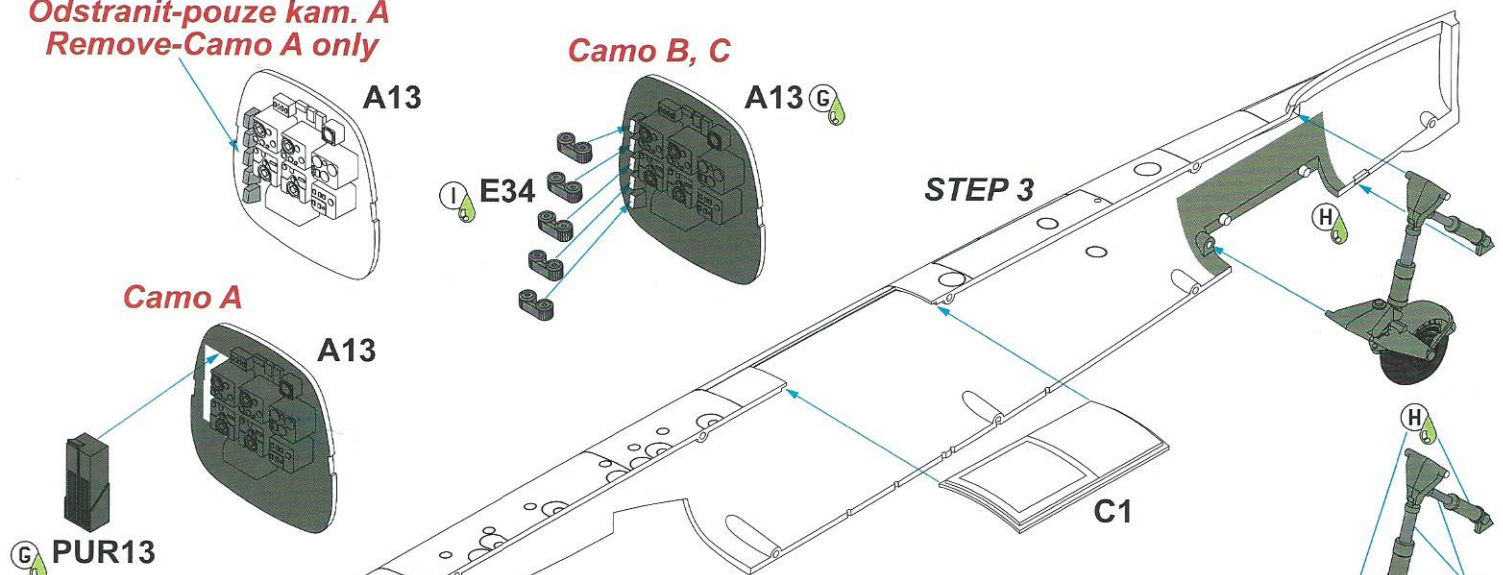
3



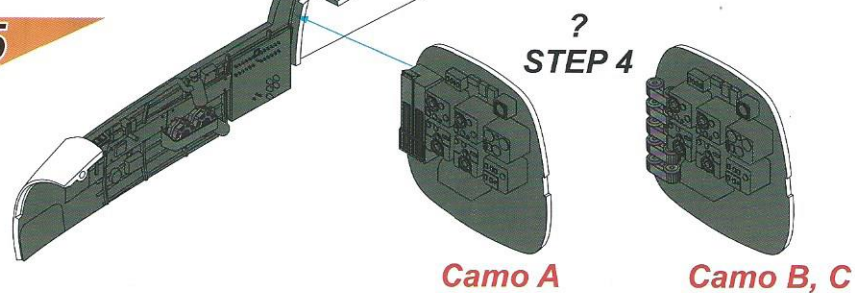
4

Odstranit-pouze kam. A
Remove-Camo A only

Camo B, C

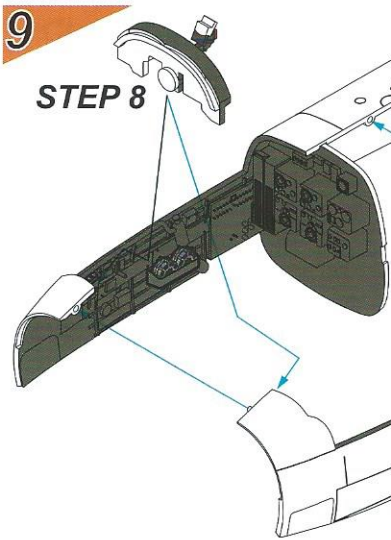
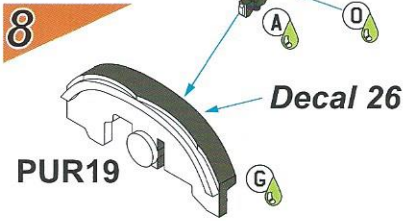
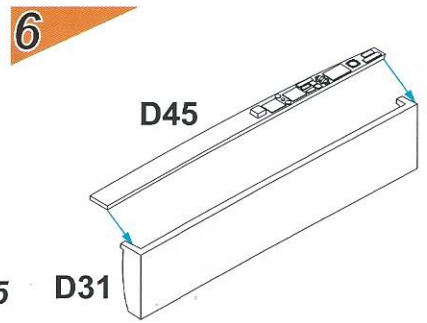
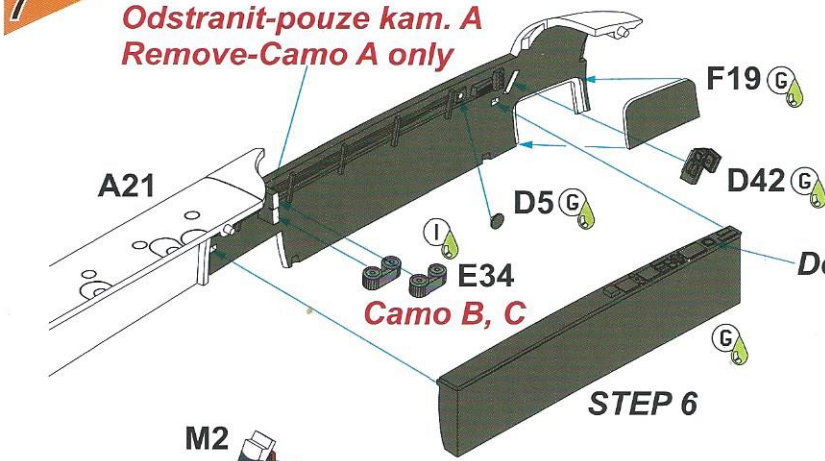


5



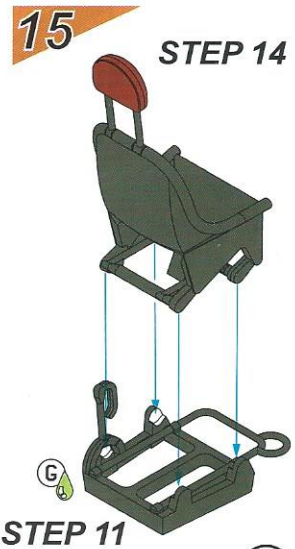
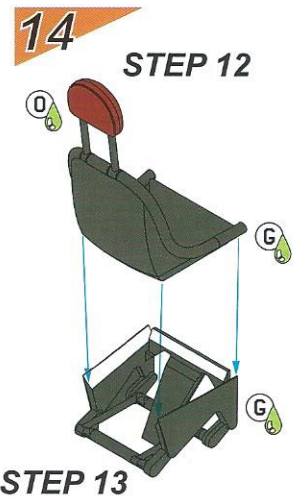
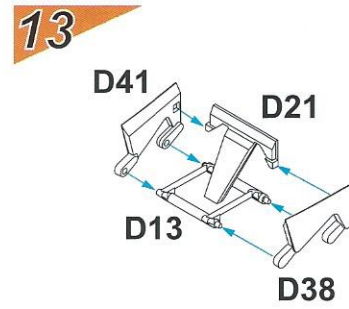
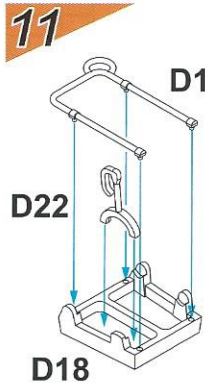
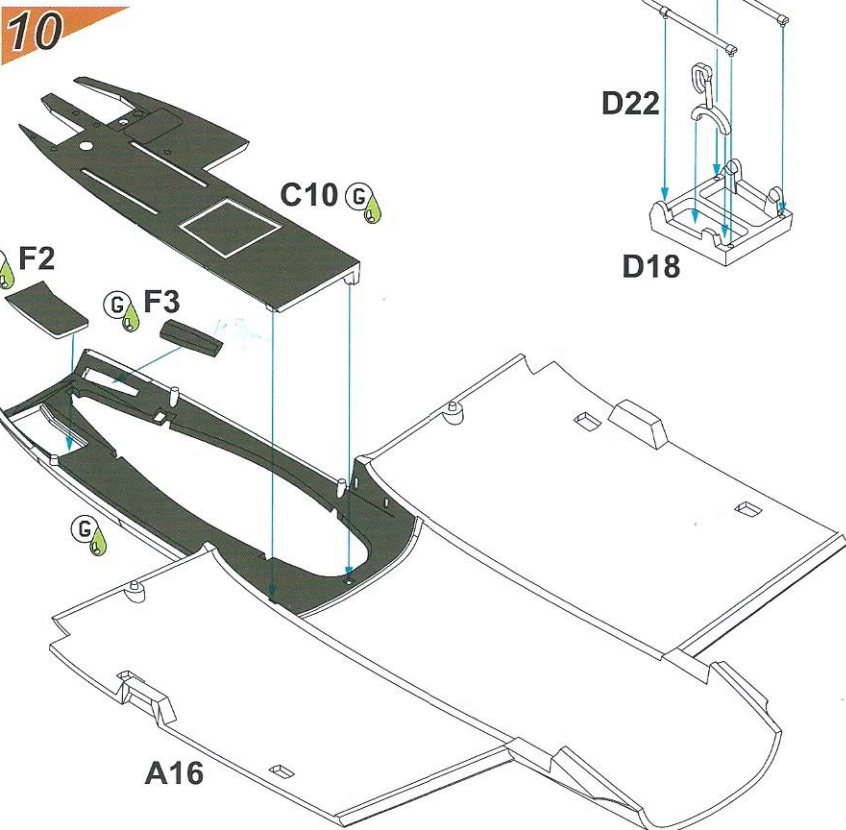
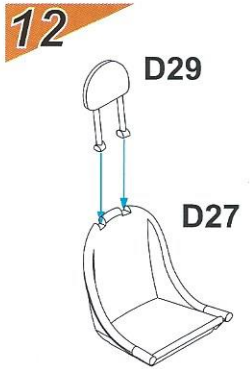
Odstranit Remove

7 *Odstranit-pouze kam. A*
Remove-Camo A only



STEP 5

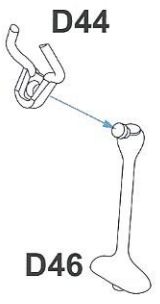
STEP 7



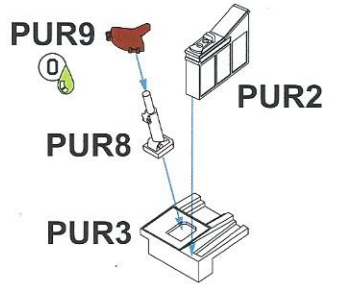
STEP 13

STEP 11

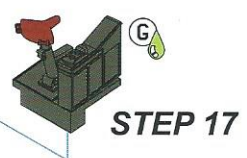
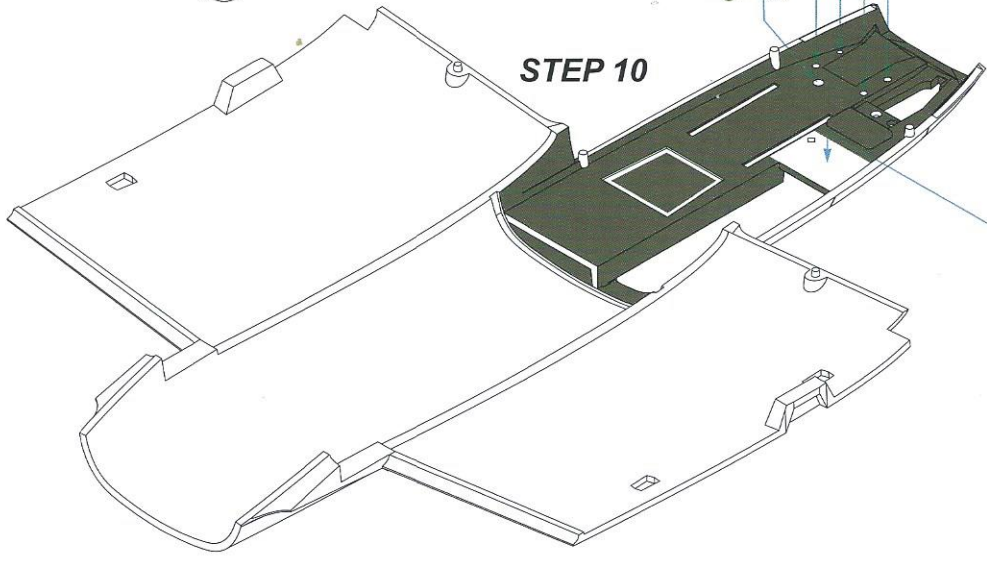
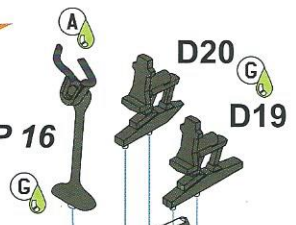
16



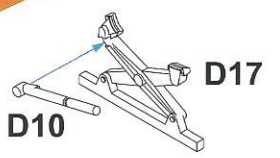
17



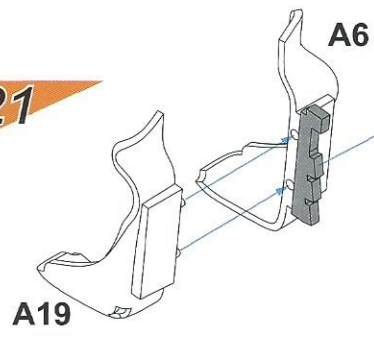
18



19

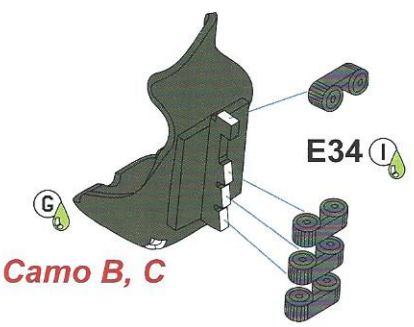
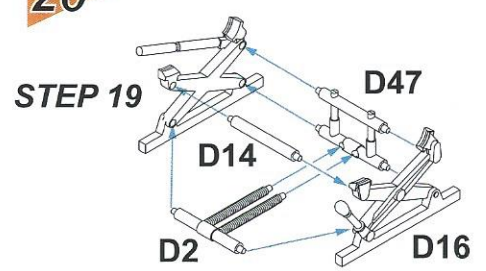


21



Odstranit-pouze kam. A
Remove-Camo A only

20



STEP 22



STEP 15

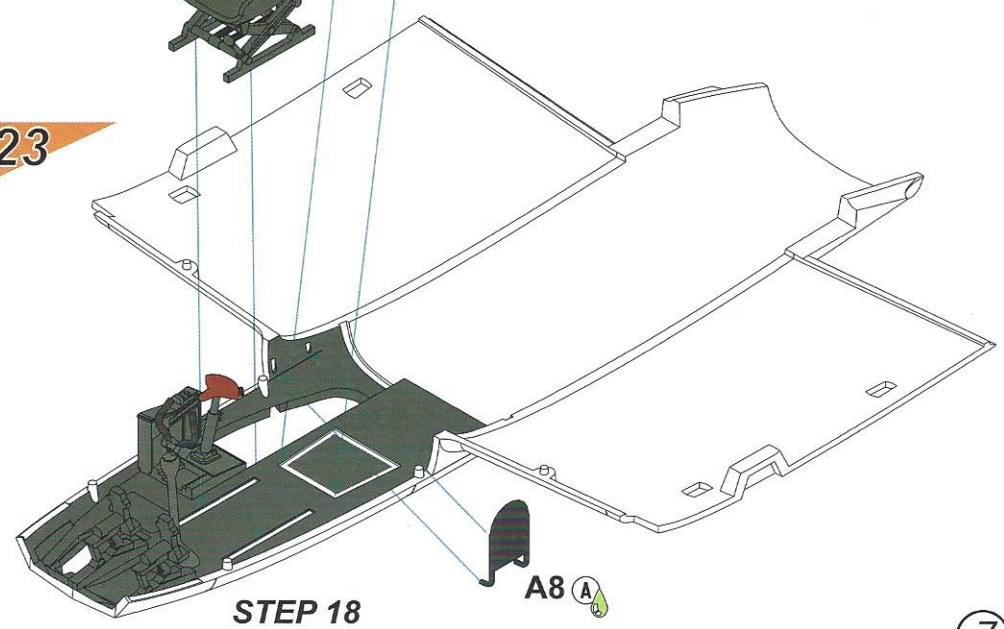
22



STEP 21

STEP 20

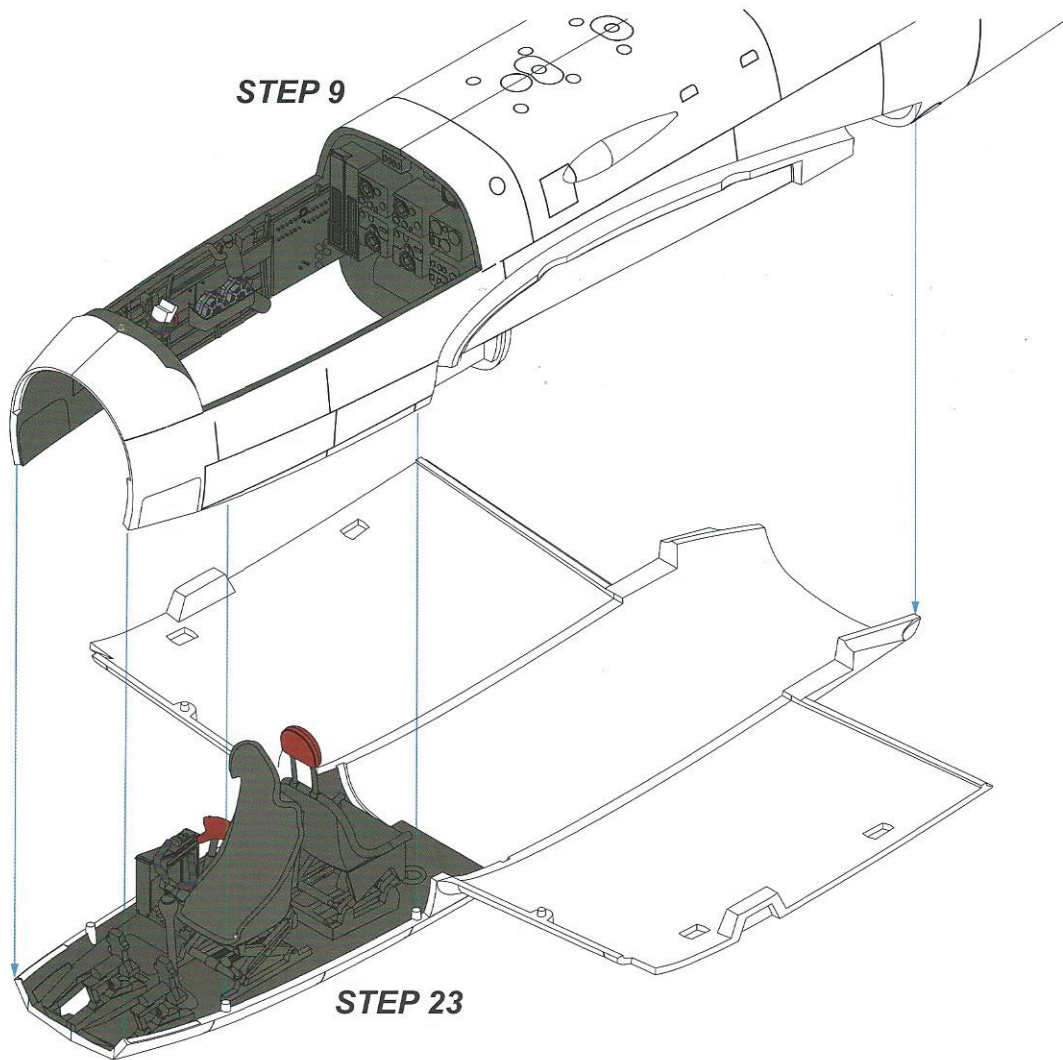
23



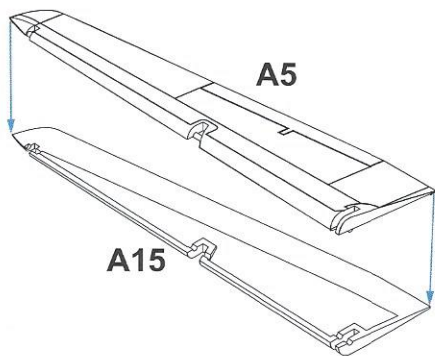
STEP 18

A8 A

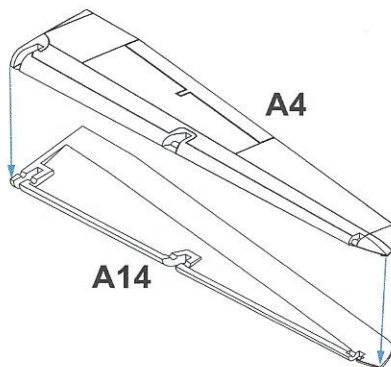
24



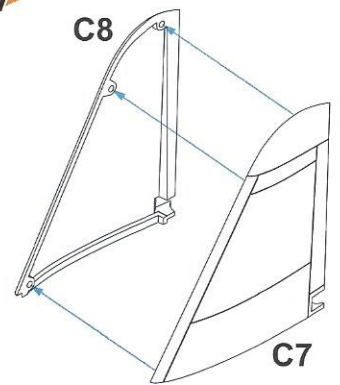
25



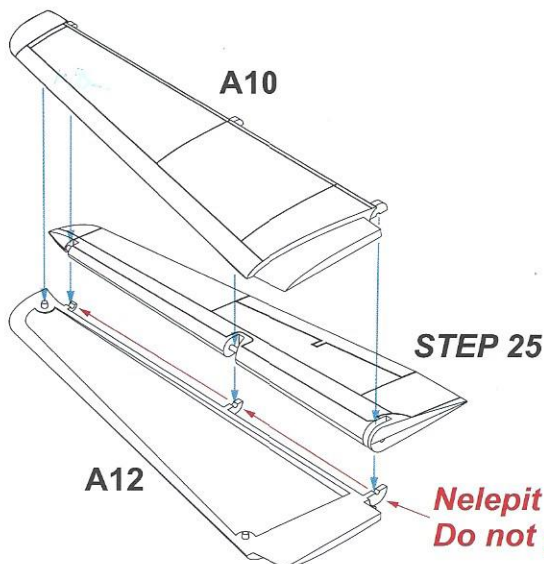
26



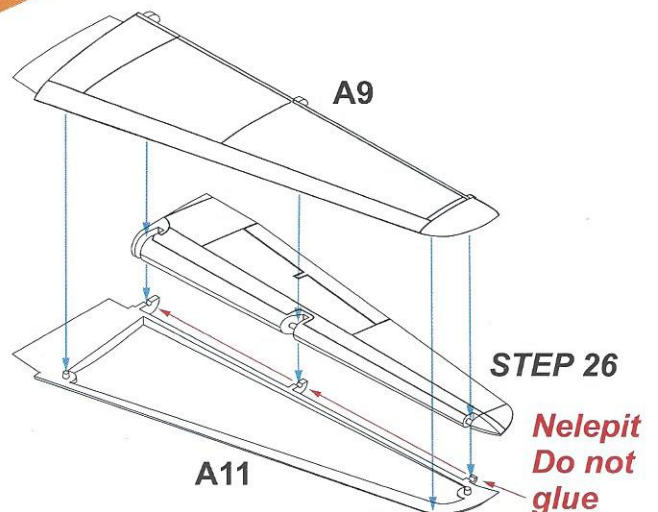
27



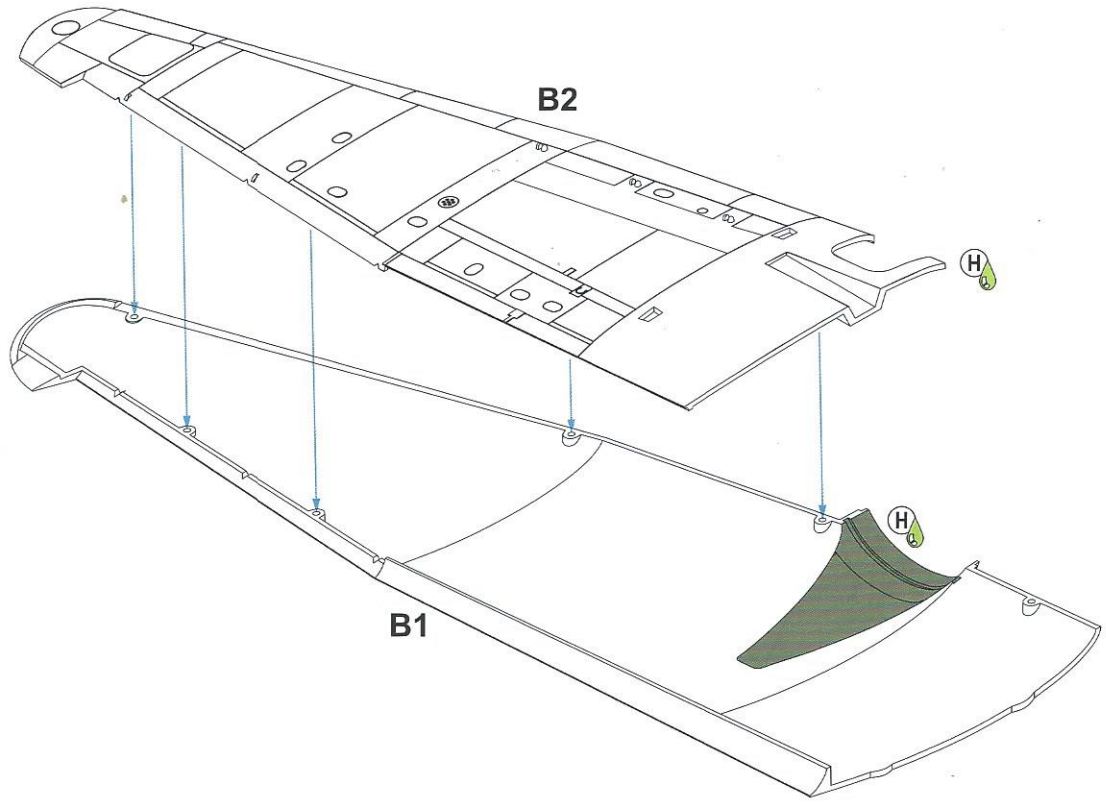
28



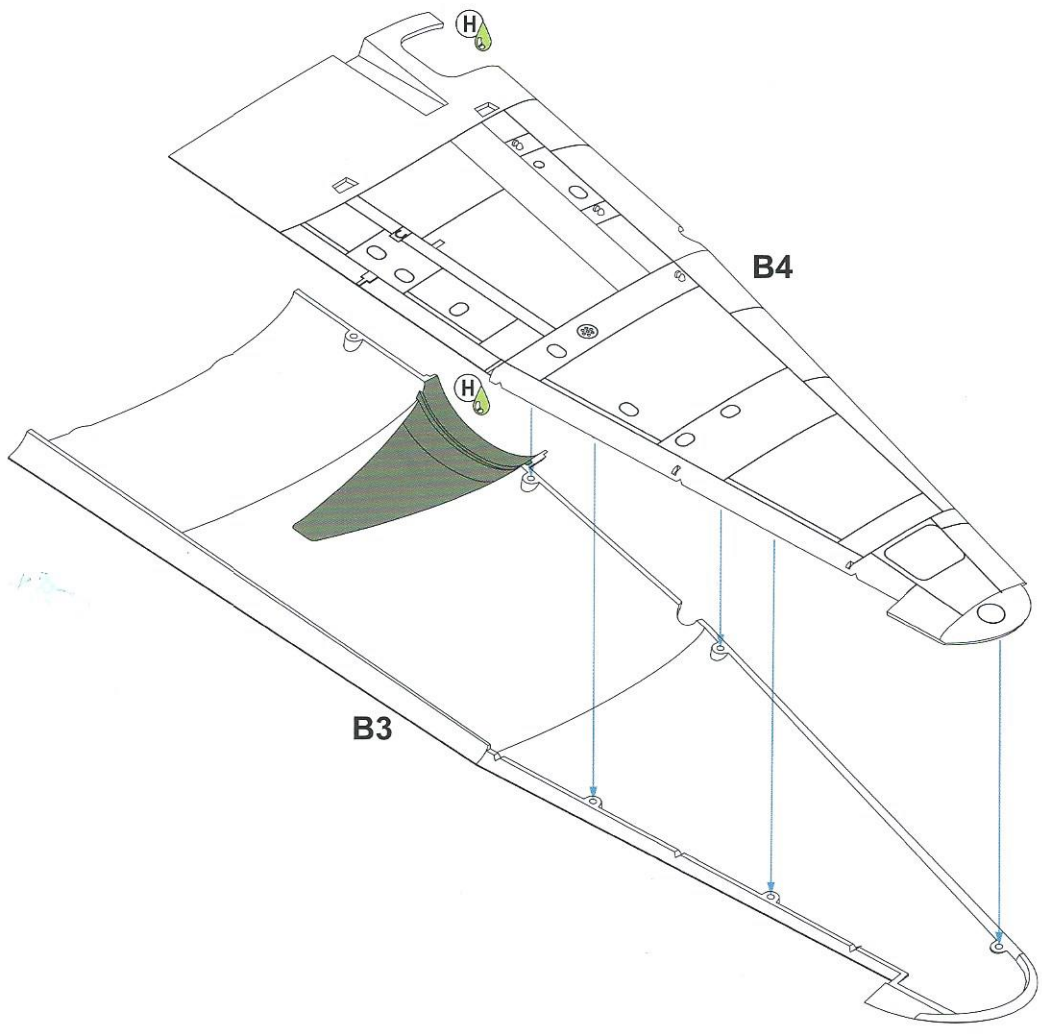
29

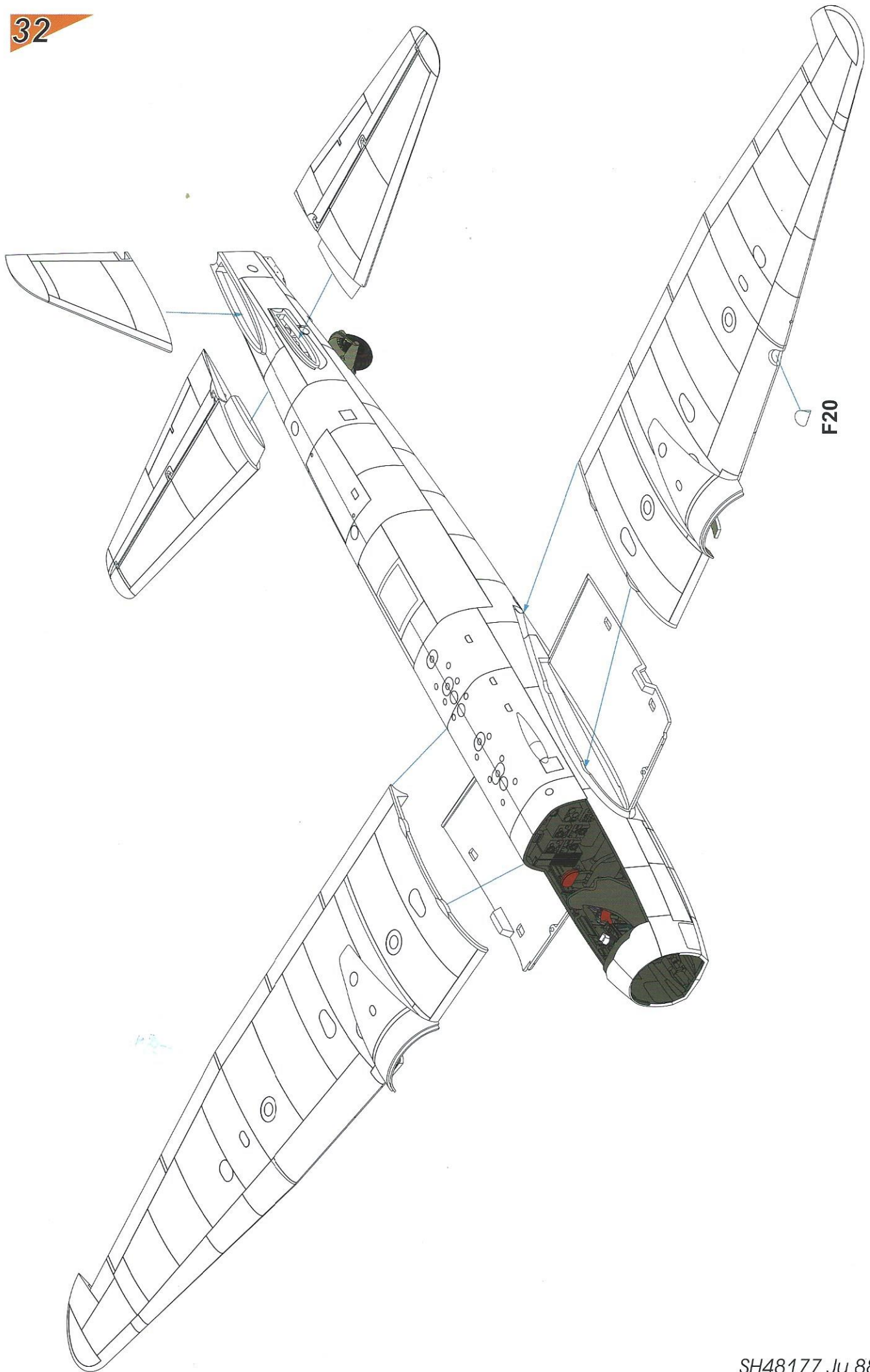


30

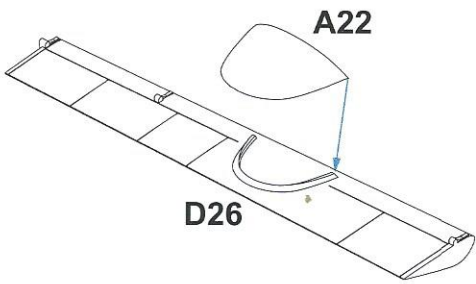


31

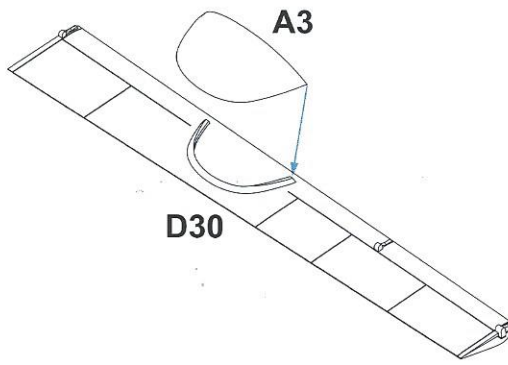




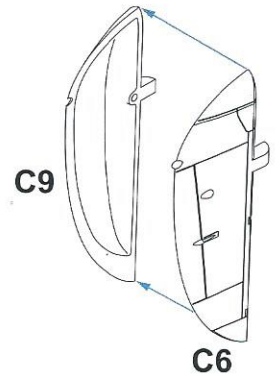
33



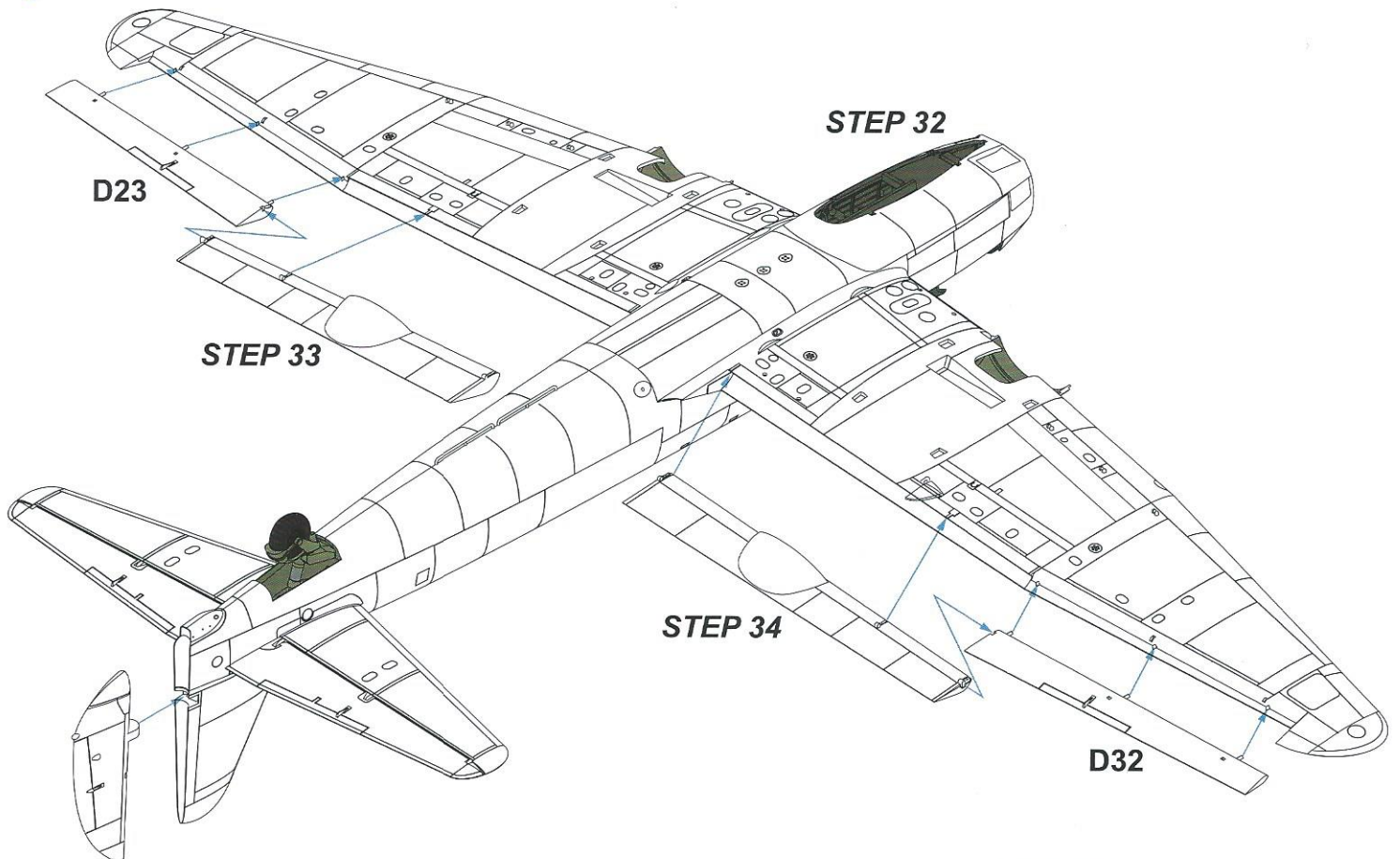
34



35

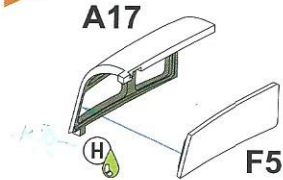


36

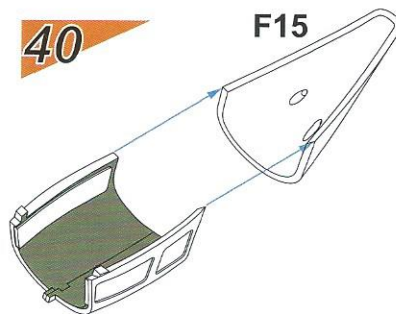


STEP 35

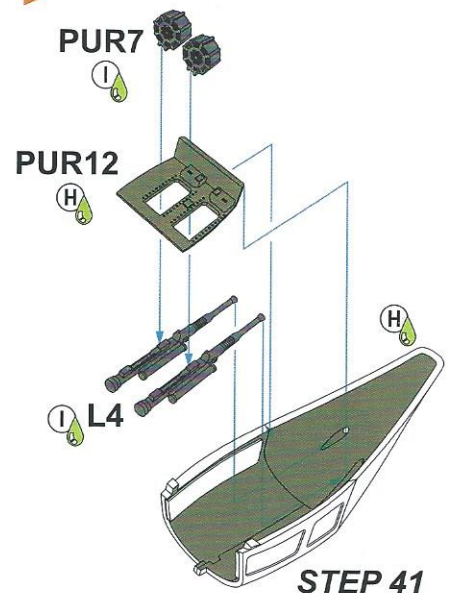
38



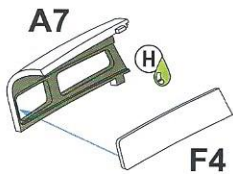
40



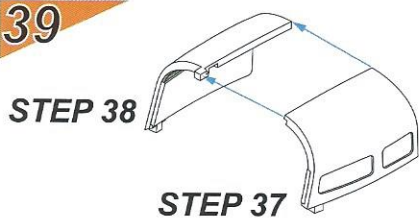
42



37



39

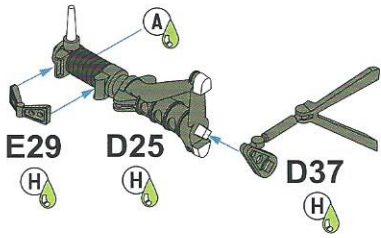


41

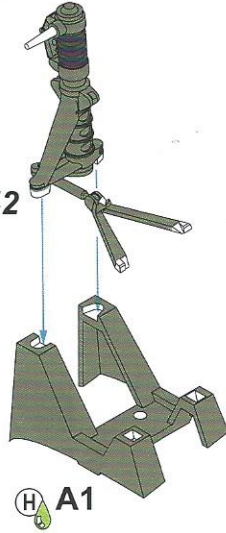
Zabrousit pro usazení kulometů
File notches for the gun barrels



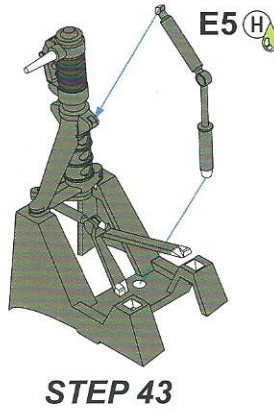
42



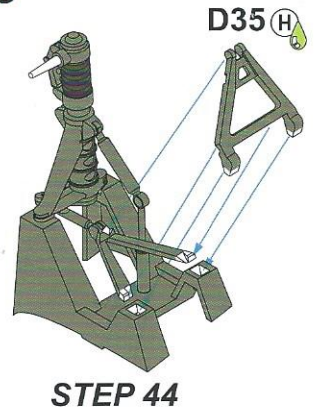
43



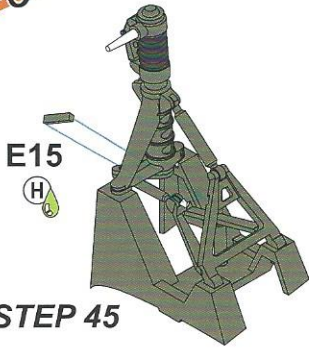
44



45



46



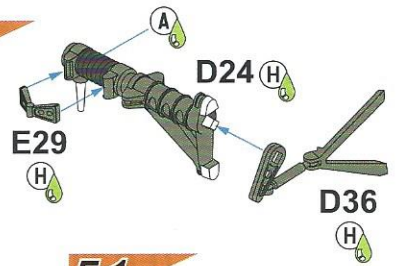
STEP 42

STEP 43

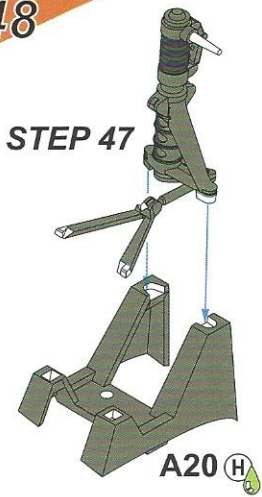
STEP 44

STEP 45

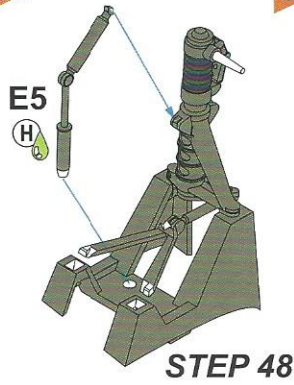
47



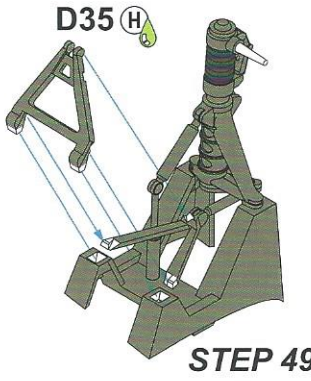
48



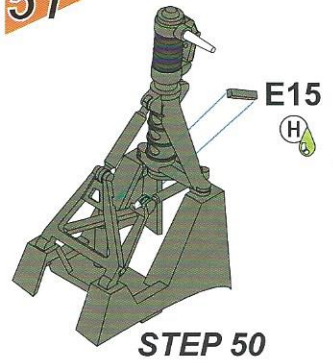
49



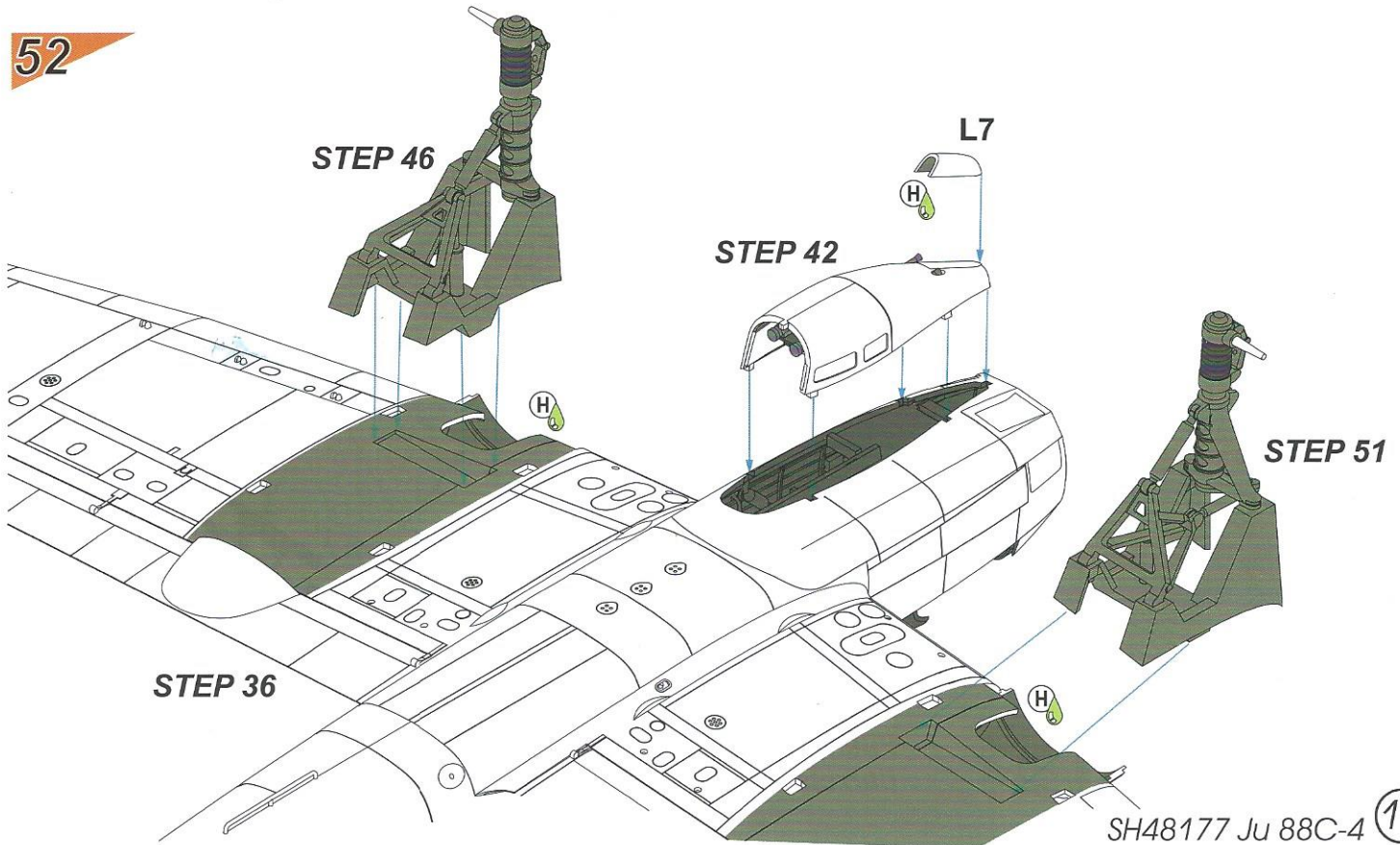
50

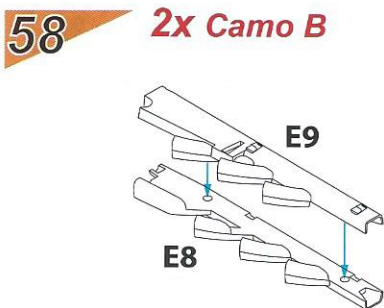
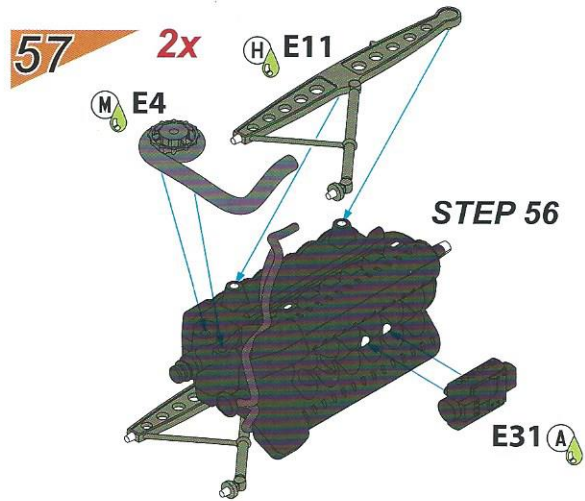
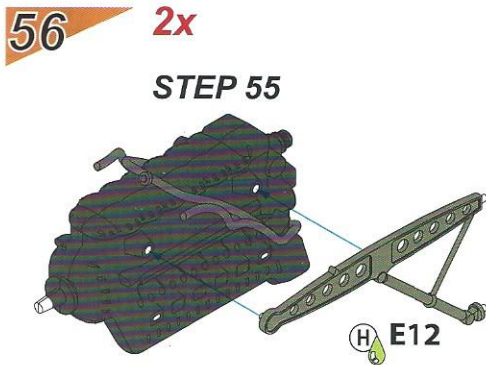
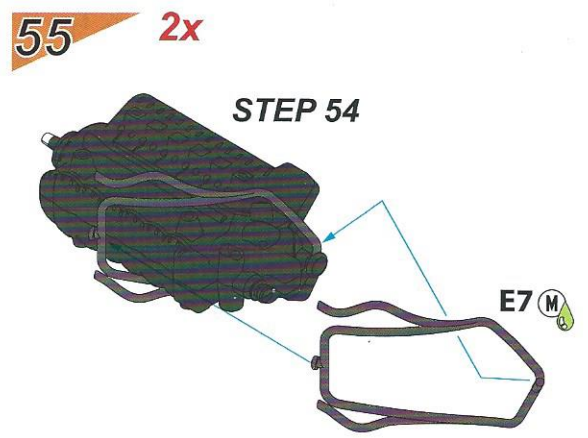
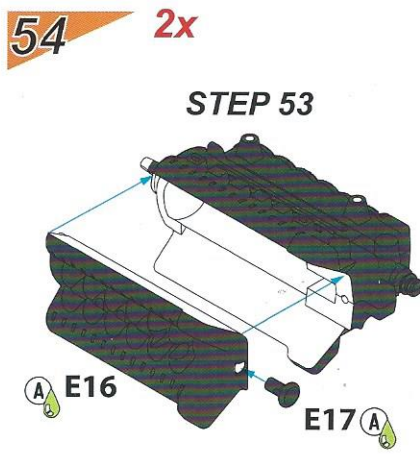
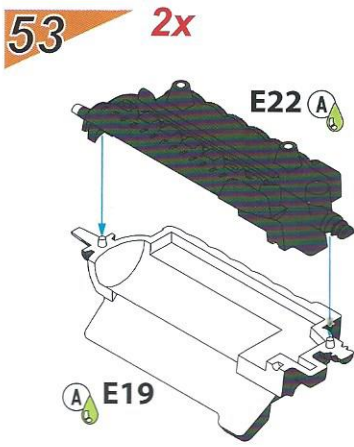


51

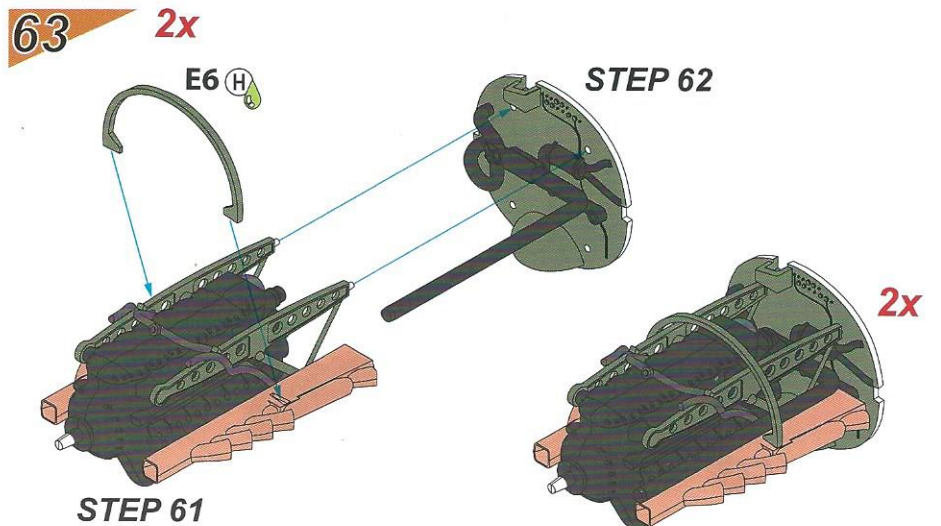
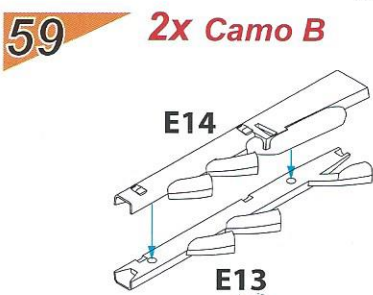


52

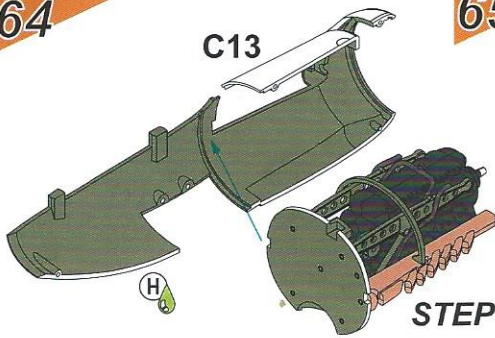




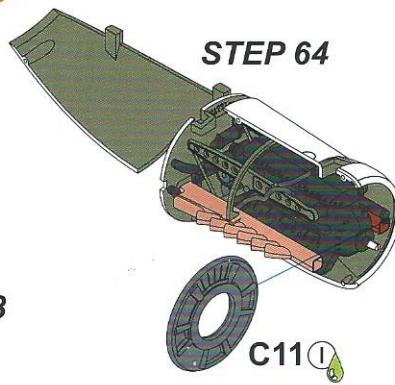
*Pro kamufláže A a C díly E8-E9, E13-E14 nepoužít
Do not use parts E8-E9, E13-E14 for camo A and C*



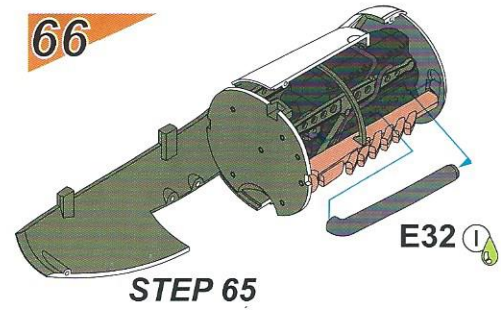
64



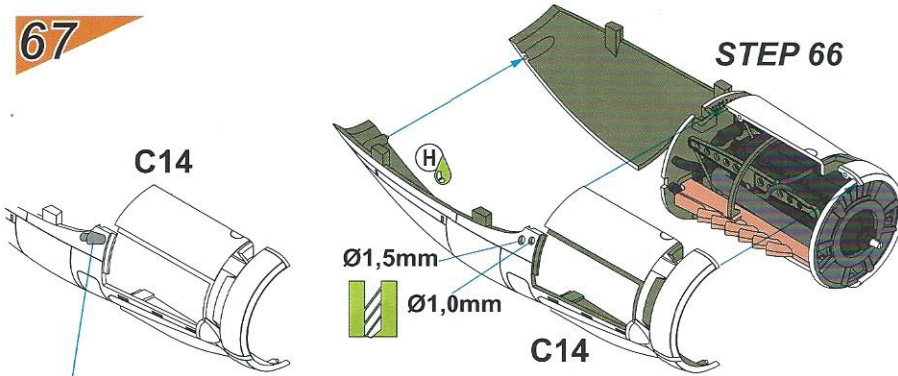
65



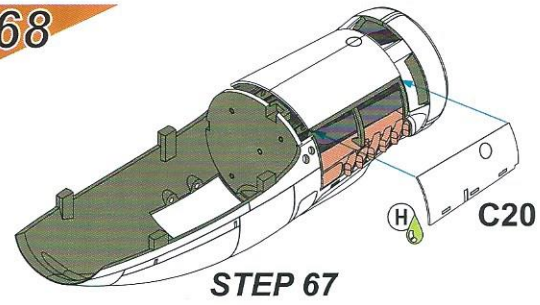
66



67

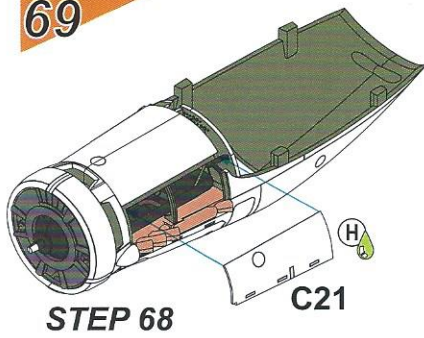


68

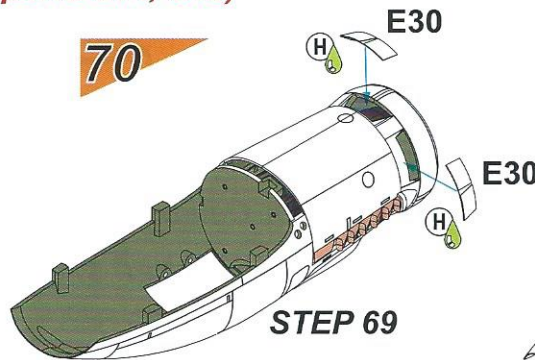


Odstranit na obou gondolách (díly C14, C18)
Remove from at both nacelles (parts C14, C18)

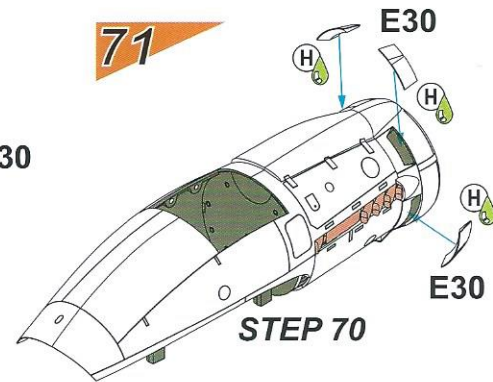
69



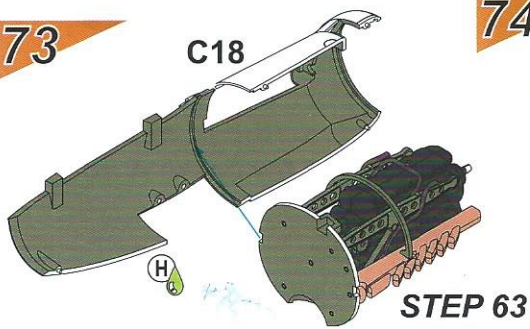
70



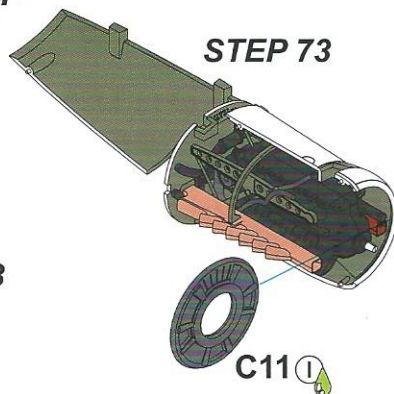
71



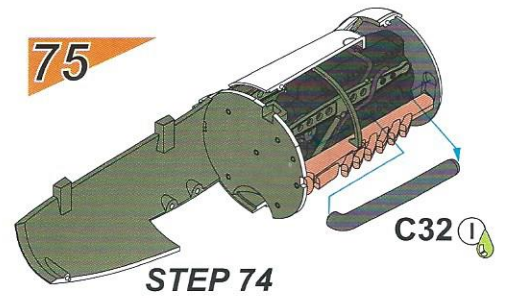
73



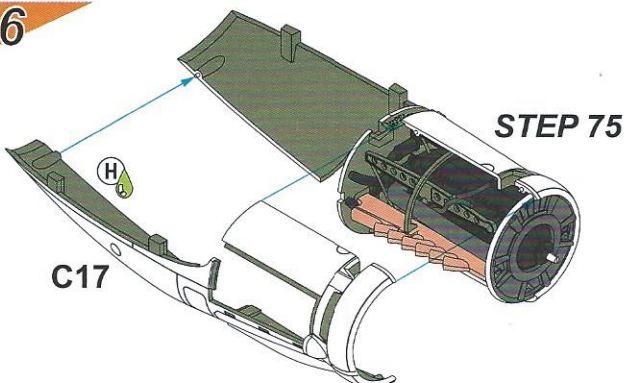
74



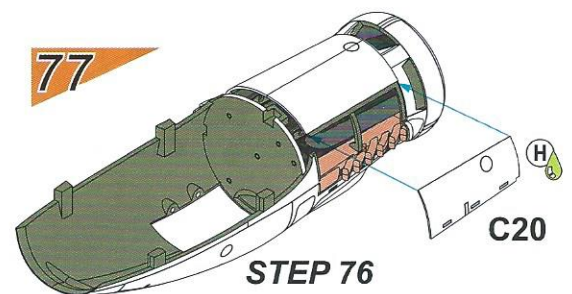
75



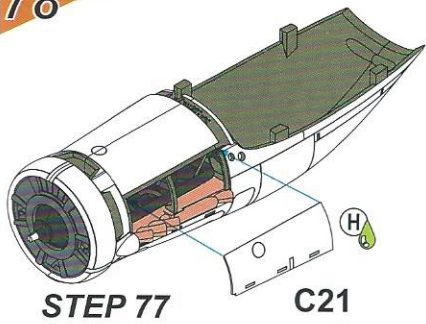
76



77



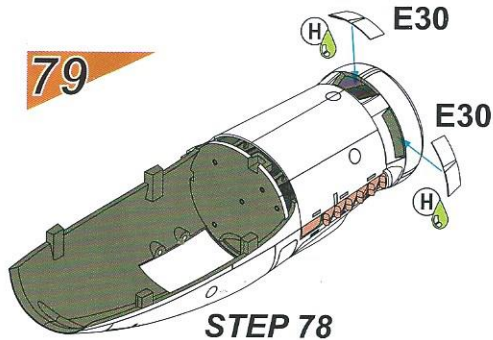
78



STEP 77

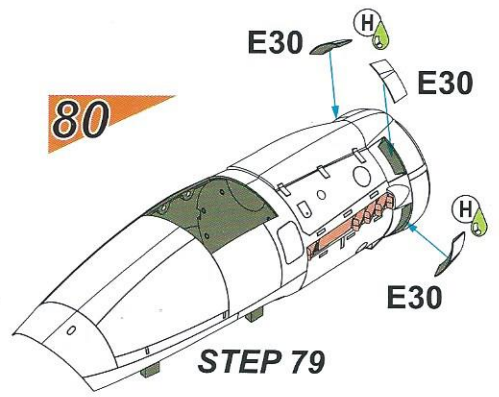
C21

79



STEP 78

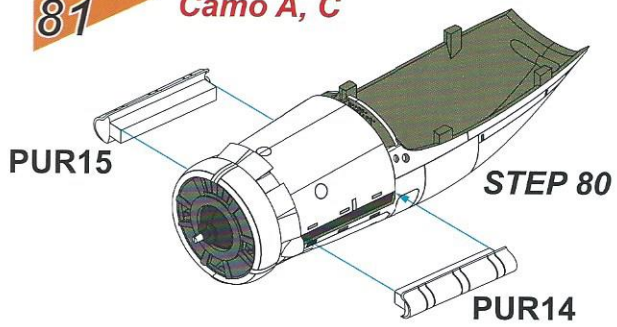
80



STEP 79

81

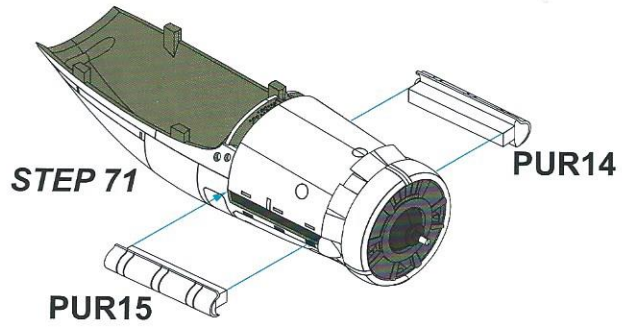
Camo A, C



STEP 80

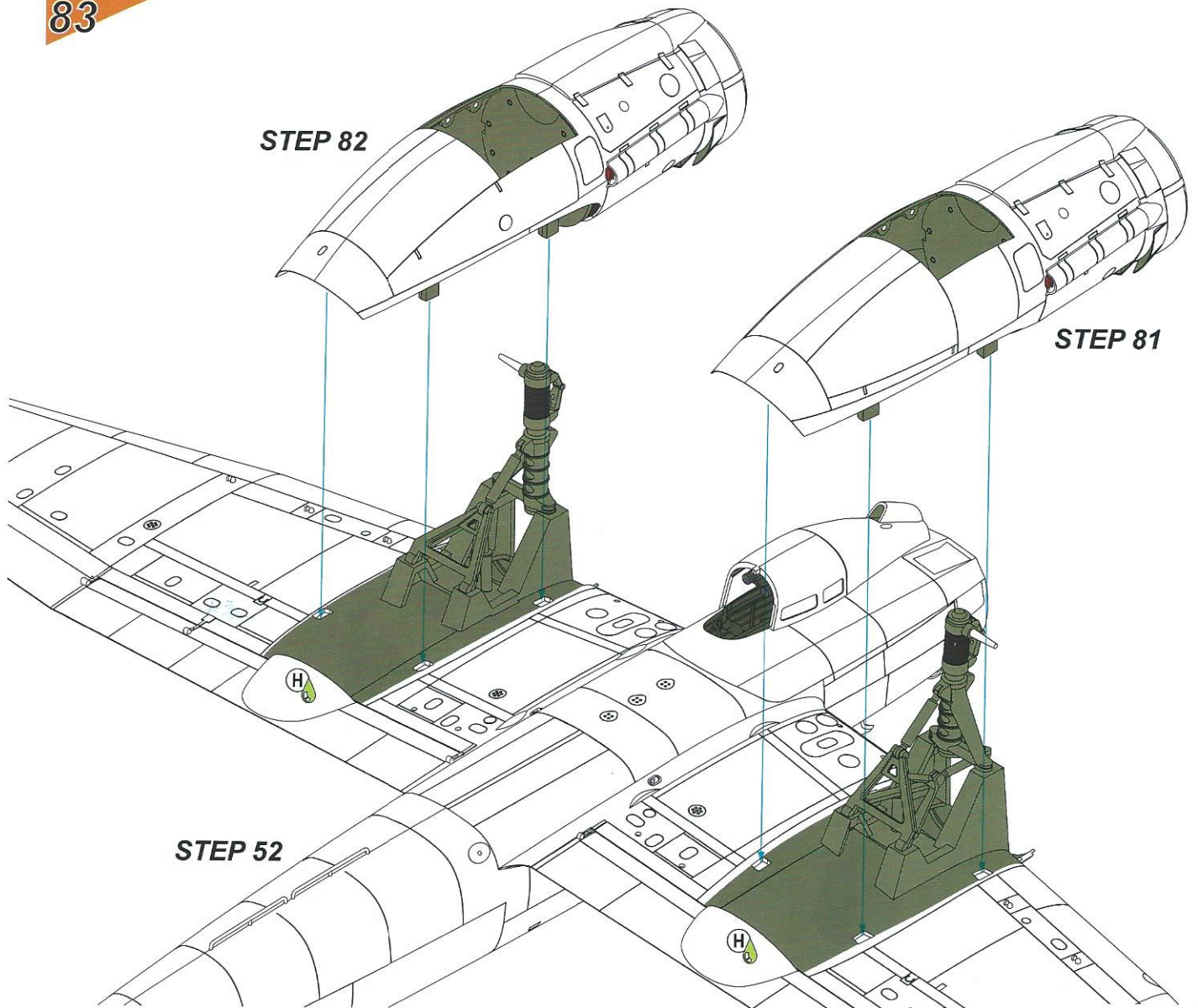
82

Camo A, C



STEP 71

83

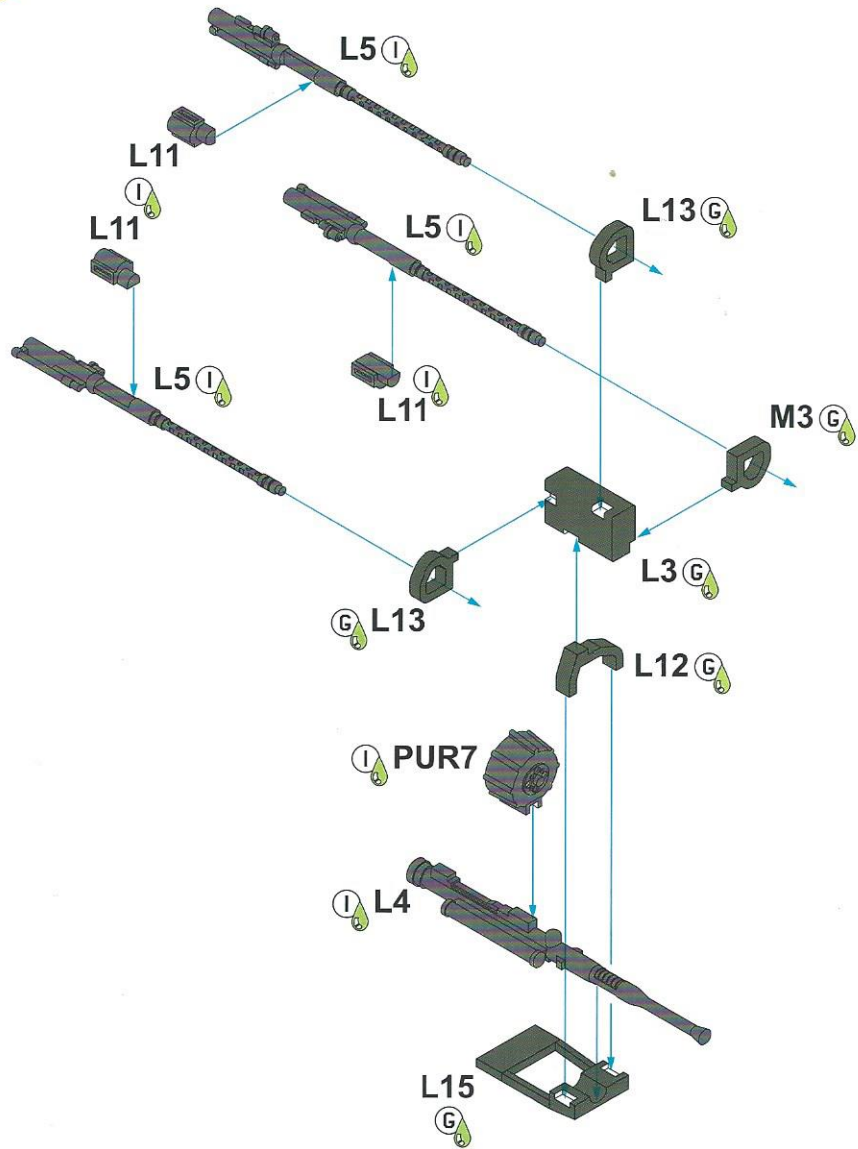


STEP 82

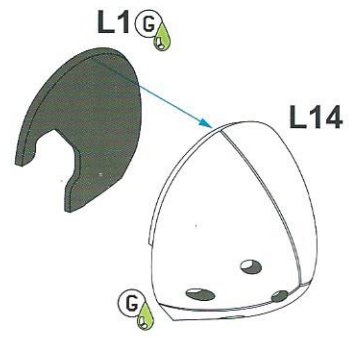
STEP 81

STEP 52

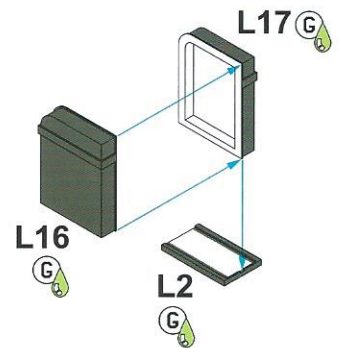
84



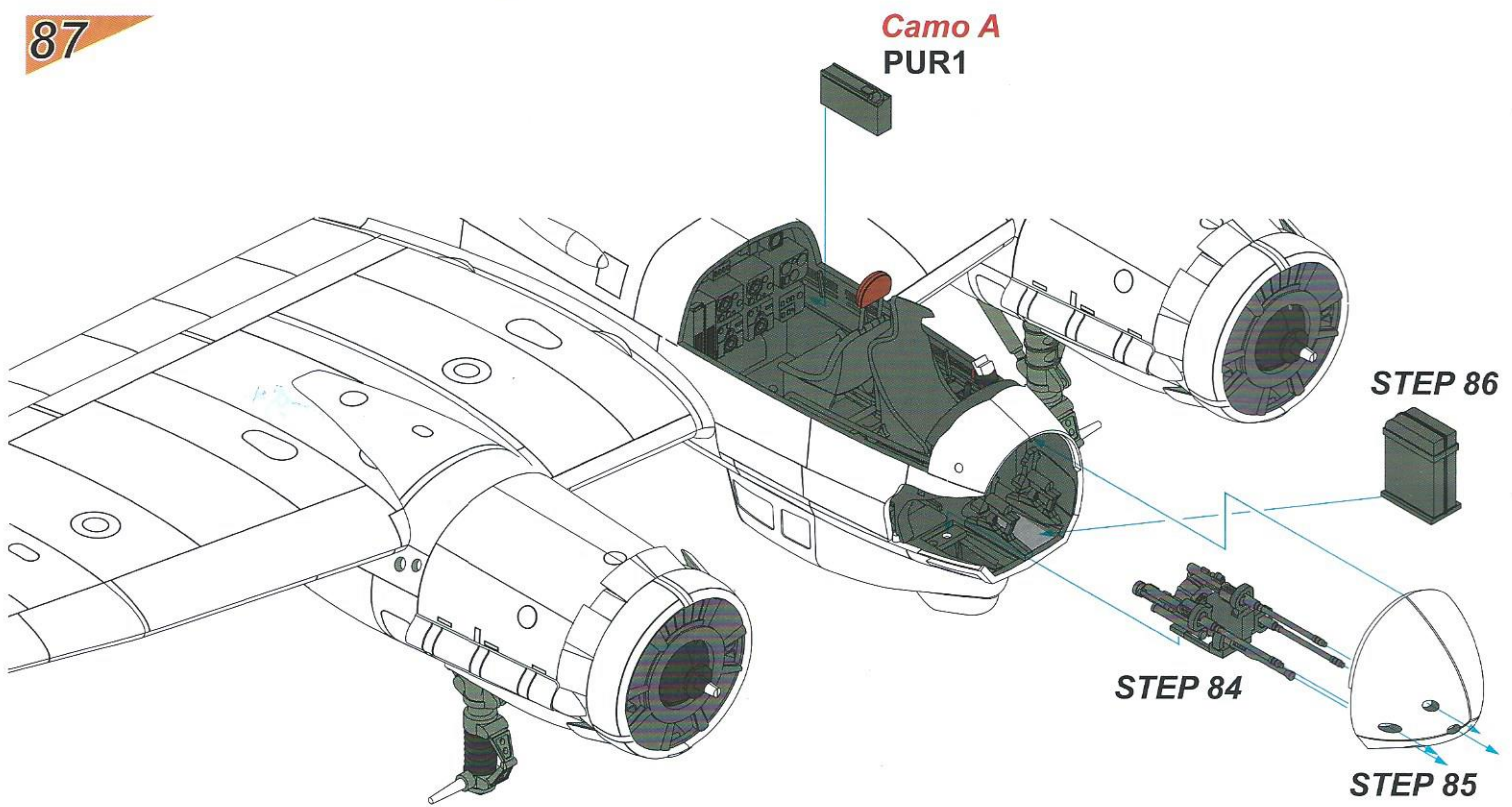
85



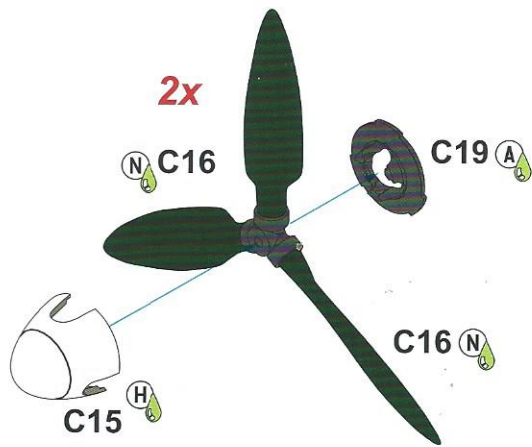
86



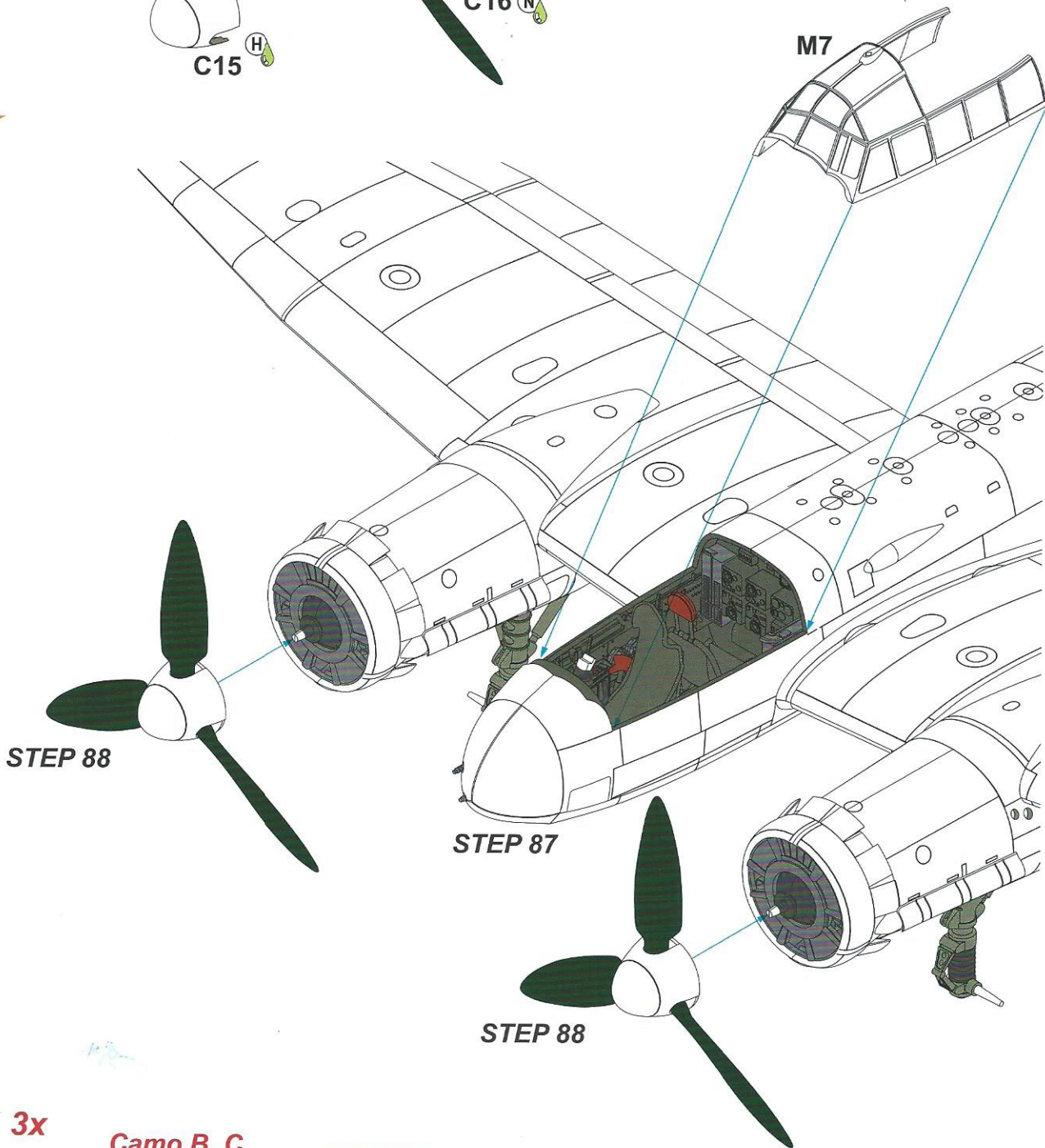
87



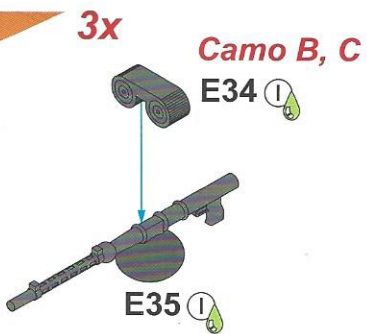
88



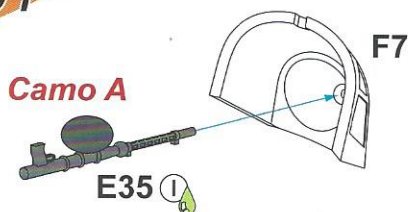
89



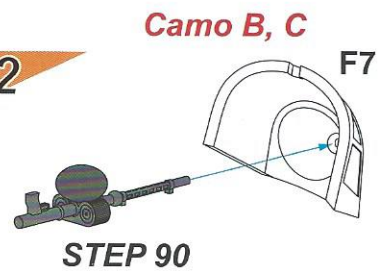
90

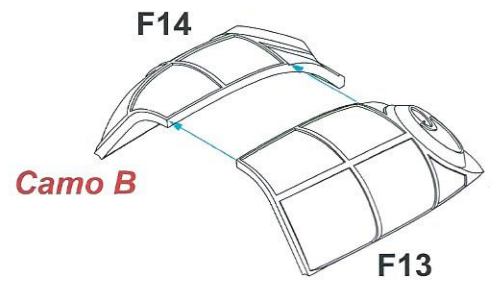
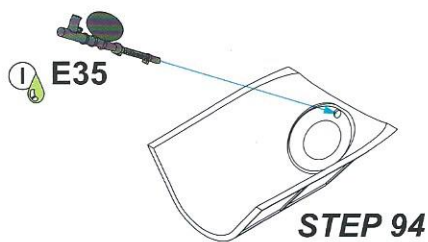
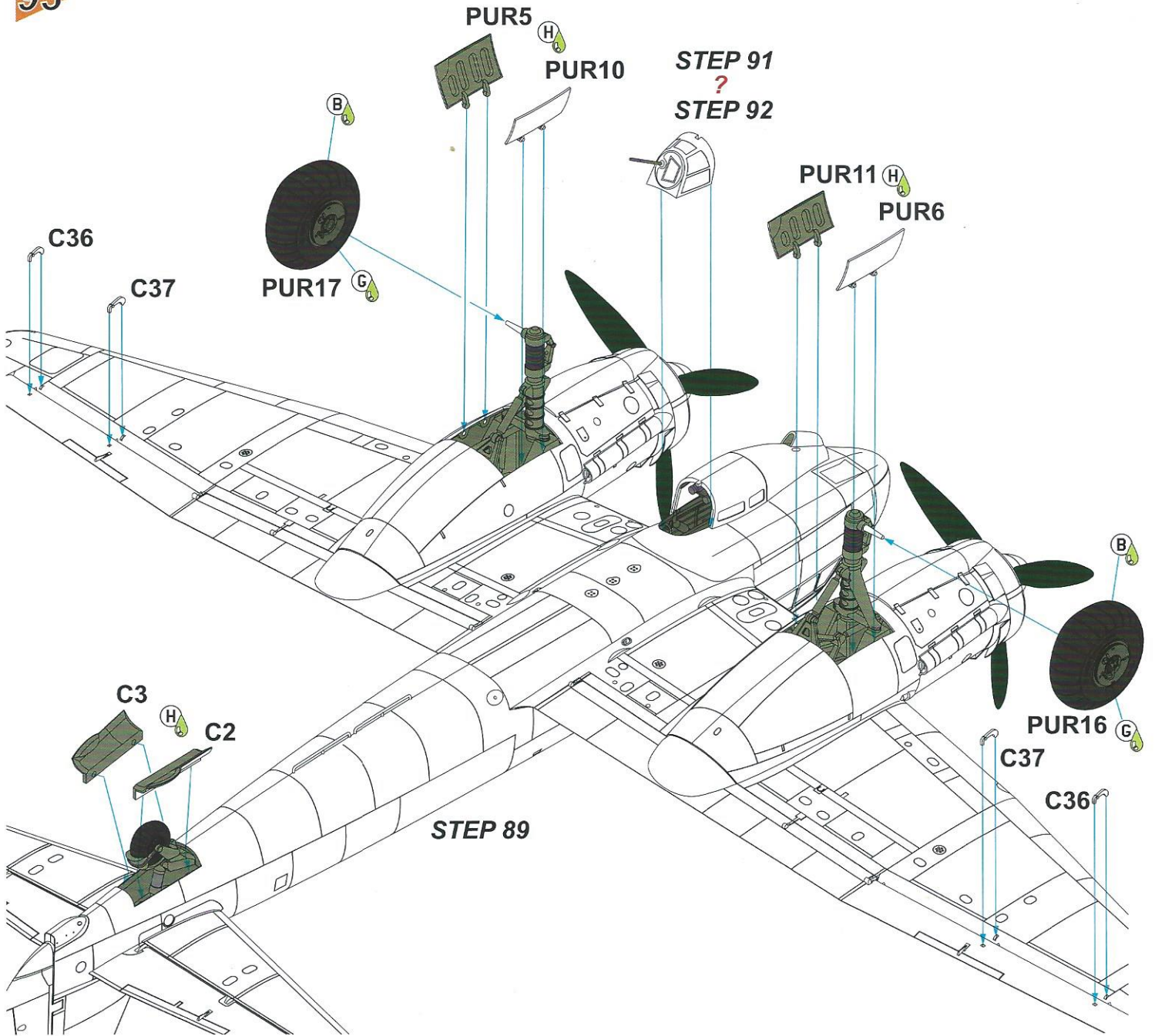


91

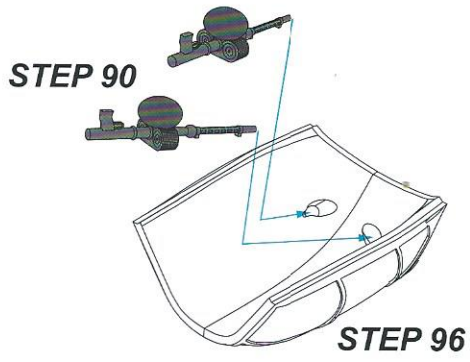


92

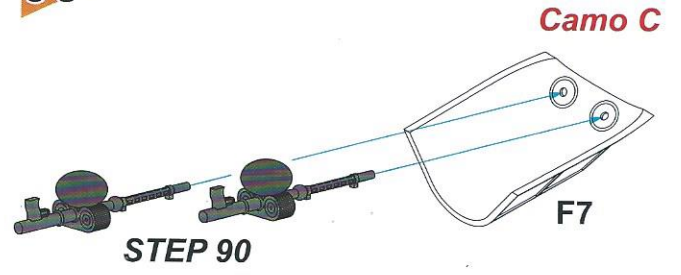




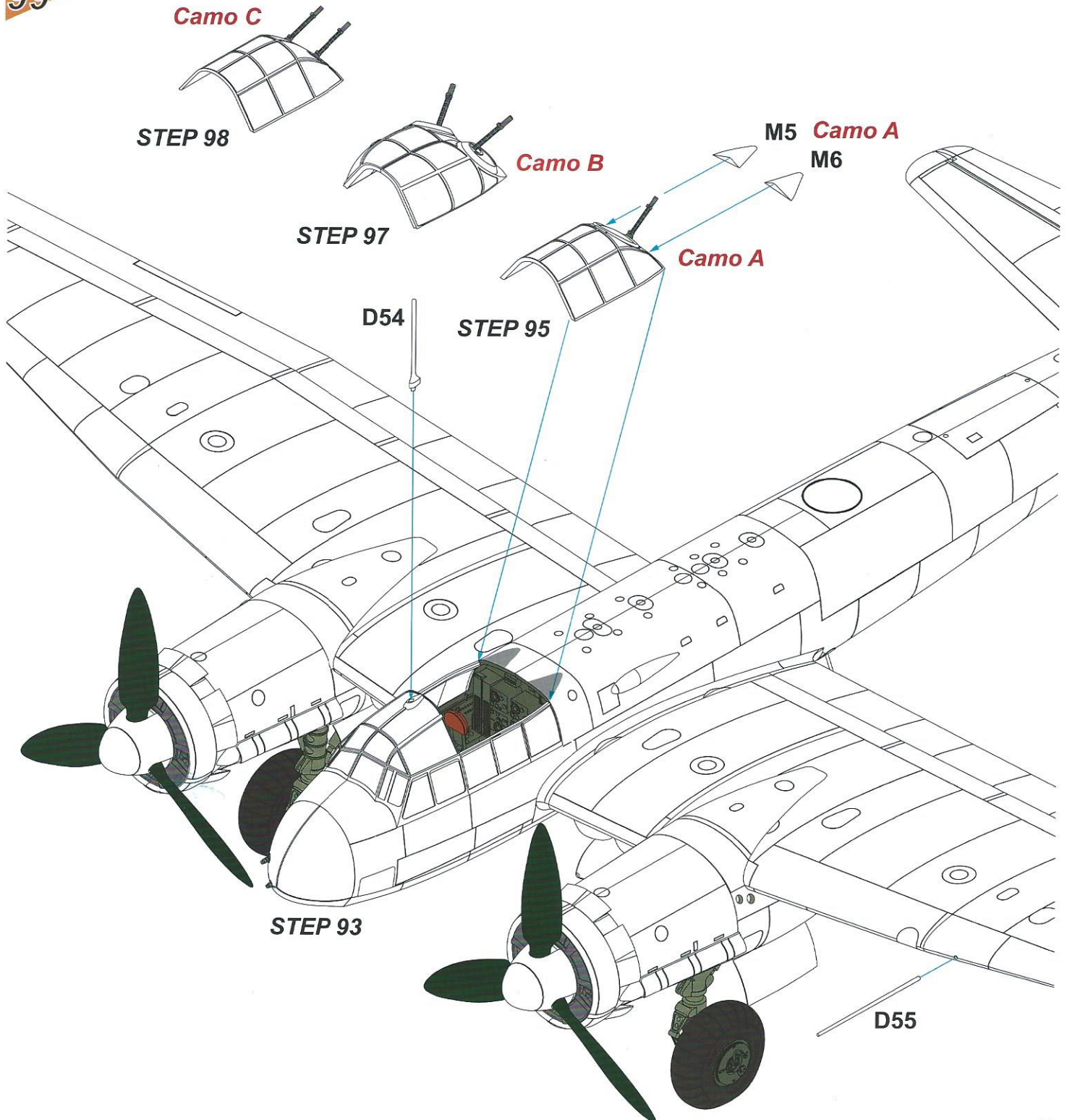
97



98



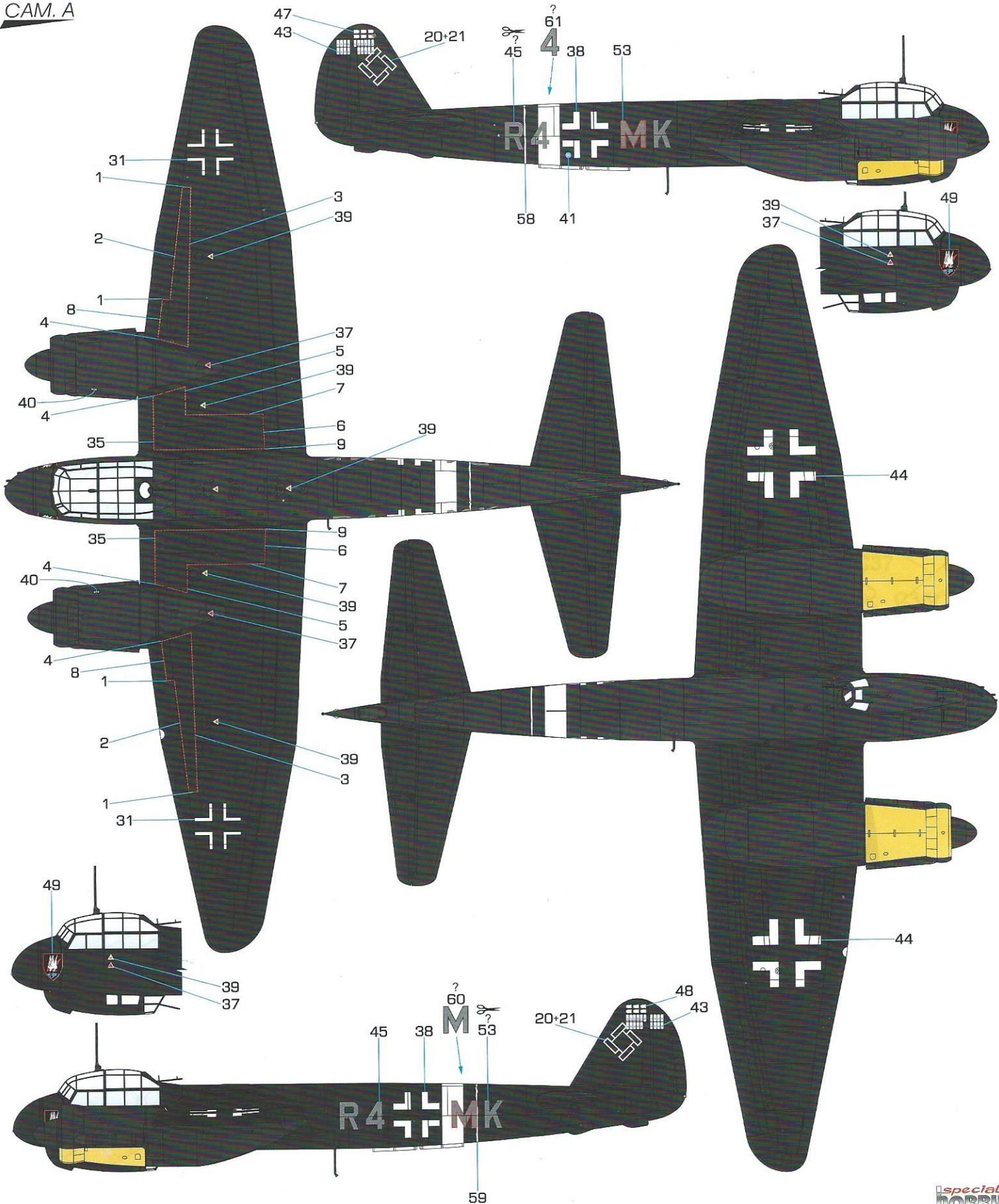
99



Junkers Ju 88C-4, R4+MK, W.Nr. 0359, 2/INJG2, letiště Gilze-Rijen, květen 1941. S letounem létalo eso s devatenácti sestřely Ofw. Hermann Sommer s osádkou Fw. Oto Glass a Ofw. Johan Rein nagel. Barevná podoba stroje R4+MK se v průběhu služby měnila, létal s i bez žlutého nástřiku motorových gondol.

Junkers Ju 88C-4, R4+MK, W.Nr. 0359, 2/INJG2, Gilze-Rijen, May 1941. This aircraft was flown by Ofw. Hermann Sommer, an ace with 19 kills to his credit and his crew of Fw. Oto Glass a Ofw. Johan Rein nagel. During the course of its service the appearance of the machine changed, it was seen flying also without yellow colour on its engine nacelles.

CAM. A



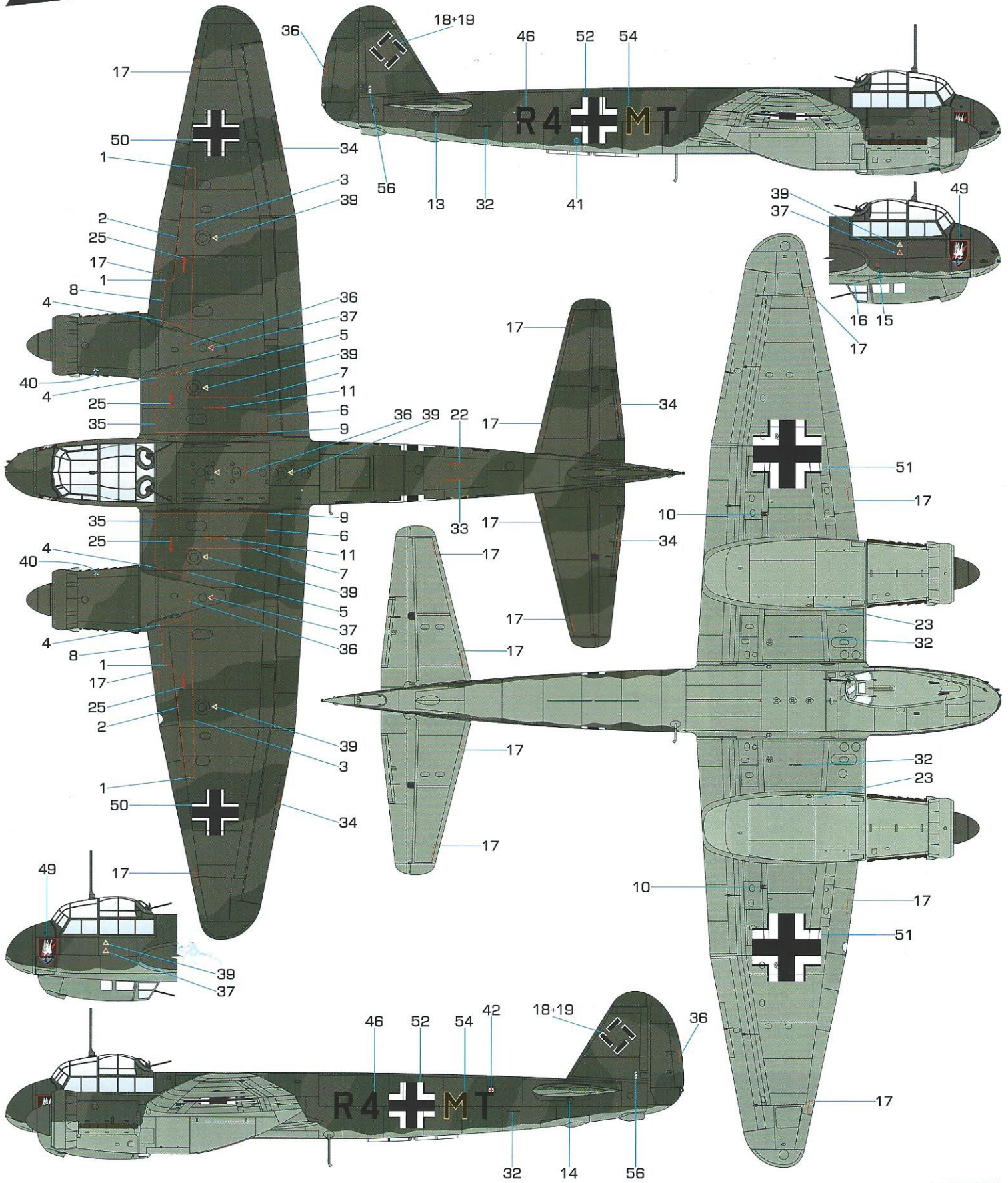
- Černá
Black
H121/C33
- Žlutá
Yellow
C113
- Špinavě bílá
Off White
H211/C69
- Opátený kov
Burnt Iron
H76/IC61



Junkers Ju 88C-4, R4+MT, 9/NJG2, letiště Gilze-Rijen, léto 1942. Letoun létal v kamufláži skládající se z barev RLM74/75 na horních a RLM76 na spodních plochách (některé podklady uvádí kombinaci "bombardovacích" barev RLM70/71 a RLM65). Fotograficky je doložen po nouzovém přistání na břicho na farmě v Belgii.

Junkers Ju 88C-4, R4+MT, 9/NJG2, letiště Gilze-Rijen, Summer 1942. Flown in a camouflage scheme of RLM74/75 shades on its upper surfaces over RLM76 lower surfaces, although some resources would rather go for a bomber scheme of 70/71 over 65 colours. The aircraft was photographed following belly crash-landing on a farm field in Belgium.

CAM. B



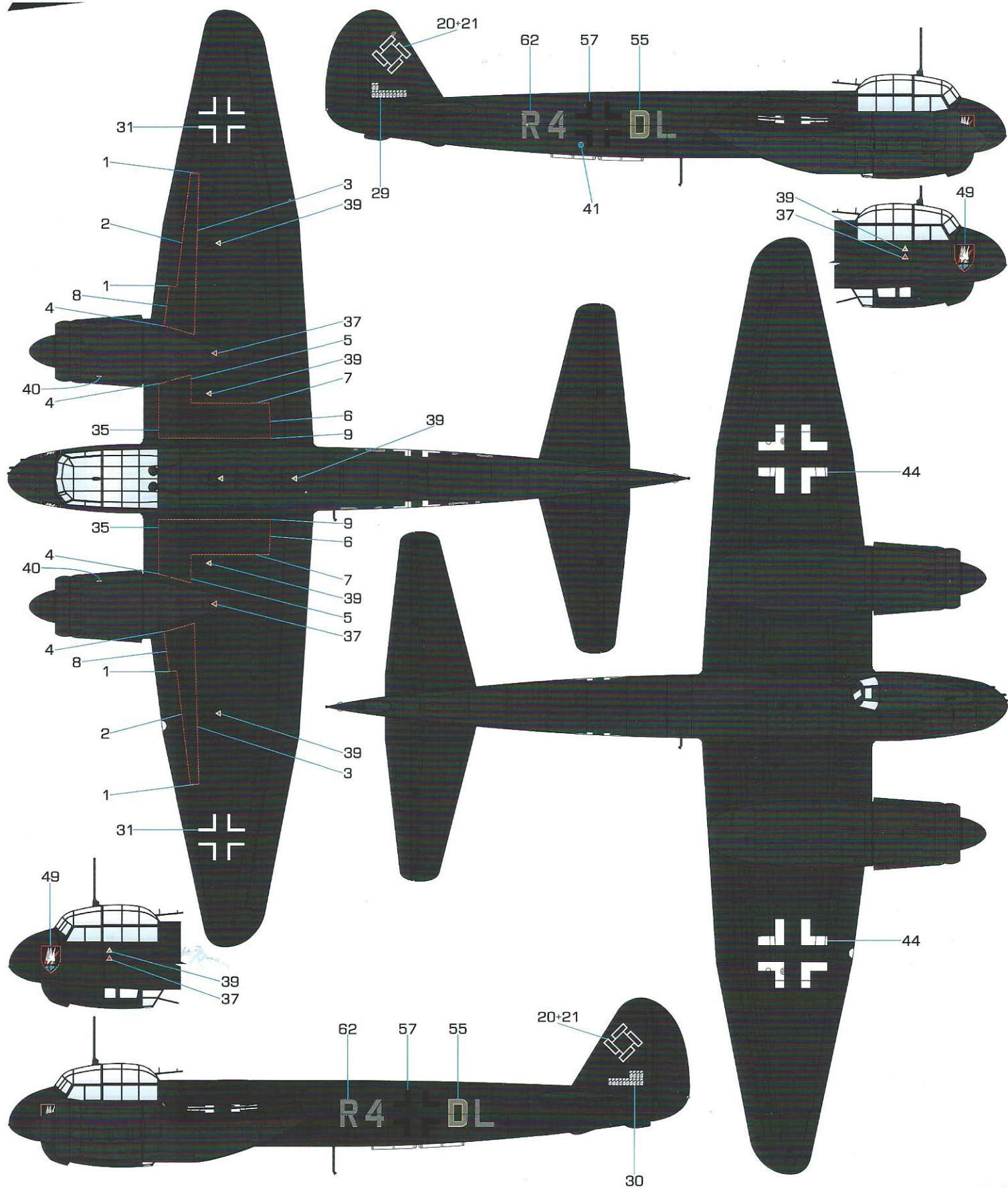
- Tmavá šedá
Dark Grey
RLM 74
H68/ C36
- Šedá
Grey
RLM 75
H69/ C37
- Světle modrá
Light Blue
RLM 76
C117
- Opálený kov
Burnt Iron
H76/ C61



Junkers Ju 88C-4, R4+DL, 3/NJG2, letiště Catania, Sicílie, květen 1942. Letoun, který je připisován nositelům Rytiřského kříže Obfw. Alfonsu Kösterovi (celkem 26 vítězství) nebo Hptm. Paulu Semrauovi (celkem 46 vítězství, posmrtně obdržel i Dubovou ratolest k RK) operoval i z afrických základen v Derně a Bengazi.

Junkers Ju 88C-4, R4+DL, 3/NJG2, Catania, Sicily, May 1942. Operating also from African bases of Derna and Benghazi, this machine was supposedly flown by either Obfw. Alfons Köster (26 victories) or Hptm. Paul Semrau (46 victories, posthumously received also Oak Leaves to his RK). Both these pilots were bearers of the Knight's Cross award.

CAM. C



Černá
 Black
 H12| C33

Opálený kov
 Burnt Iron
 H76 | C61

