



Historie

Firma Short byla jednou z největších firem, které se věnovaly vývoji a výrobě létajících člunů. Ve třicátých letech minulého století, kdy celokovové jednoplošníky začaly vytlačovat dvouplošníky, Short vyvinul několik variant civilních čtyřmotorových celokovových létajících člunů S.23, 30 a 33, souhrnně označovaných C-Class nebo Empire Class. Část z nich dostala vojenské vybavení a používaly se i bojově. Zkušenosti s výrobou a provozem těchto člunů se projeví v konstrukci stroje Short S.25. Ten byl navržen podle specifikací R.2/33, požadujících létající člun dalekého doletu určený k protiponorkovému hlídkování a k průzkumu. Čtyřmotorový celokovový stroj, jehož první prototyp vzletl poprvé 16. října 1937 dostal pojmenování Sunderland Mk.I. Sunderlandy Mk. I byly vybaveny motory Pegasus Mk.XXII, střeleckými věžemi v přidi a zádi a otevíratelnými střelišti na hřbetě trupu. Bylo jich vyrobeno 90 kusů, část z nich u firmy Blackburn. Verze Sunderland Mk.II dostala hřbetní střeleckou věž a silnější motory Pegasus Mk.XVIII. Společná výroba u Shortu a Blackburnu dal vzniknout 43 kusům této verze. Na některých kusech této verze byly použity první verze radarů se stromečkovitými anténami ASV Mk.II. Zkušenosti z bojišť vedly k úpravám Sunderlandu. Výroba přešla na verzi Mk.III/IIIA. Trup této verze dostal nové, aerodynamicky výhodnější stupnění kýlu, ASV radar Mk.III v kapkovitém výstupku pod křídlem. Pozdější vyrobené kusy dostaly do přídě výzbroj čtyř pevných kulometů určených k boji s obsluhami protiletadlových zbraní na vynořených ponorkách. Celkem bylo vyrobeno 456 kusů trojek. Vzhledem k tomu, že zvětšená verze Sunderland Mk.IV, později přeznačená na Seaford Mk.I se nevyrobila sériově, poslední verzi Sunderlandu v sériové výrobě se stala verze Sunderland Mk.V. Dostala americké motory P&W R-1830-90B a radar ASV Mk.VIC. Výroba byla ukončena až v červnu 1946 po vyrobení 150 kusů. Sériové Sunderlandy Mk.I dostala jako první No.230 sqn. RAF v roce 1938. Na konci války se Sunderlandy létalo dvacet squadron pod velením RAF a další squadrony pod velením spojeneckým. Bojovaly od prvního dne války až do jejího konce. Během válečných let se nesporně osvědčily. Nasazeny byly v nad oceány od Atlantiku, přes Indický oceán, až po Pacifik. Spolehlivě sloužily na chladném severu v polárních oblastech, stejně jako v tropech. Vysloužily si, pro svou obrannou výzbroj, pojmenování létající dikobraz. Konec války neznamenal konec jejich služby. Sunderlandy RAF se mohou pochlubit mimo jiné účasti v Korejském konfliktu, Berlinském mostu nebo bojů s komunistickými bojůvkami v Malajsku. Kromě britského RAF létaly v řadách australského, novozélandského, norského, jihoafrického a kanadského letectva, francouzského a portugalského námořnictva. U většiny zahraničních uživatelů již během války. Poslední novozélandské Sunderlandy byly přitom vyřazeny až v roce 1967!

CZ

TTD verze Mk.V

Rozpětí: 34,39 m, délka: 26 m, max. rychlost: 343 km/h v 1800 m, operační dostup: 5457 m, dolet 3027 km, vytrvalost: 10/21 hodin při rychlosti 260/220 km/h, výzbroj: 2250 kg bomb či hlubinných bomb, 12x kulomet 7,7 mm, 2x kulomet 12,7 mm

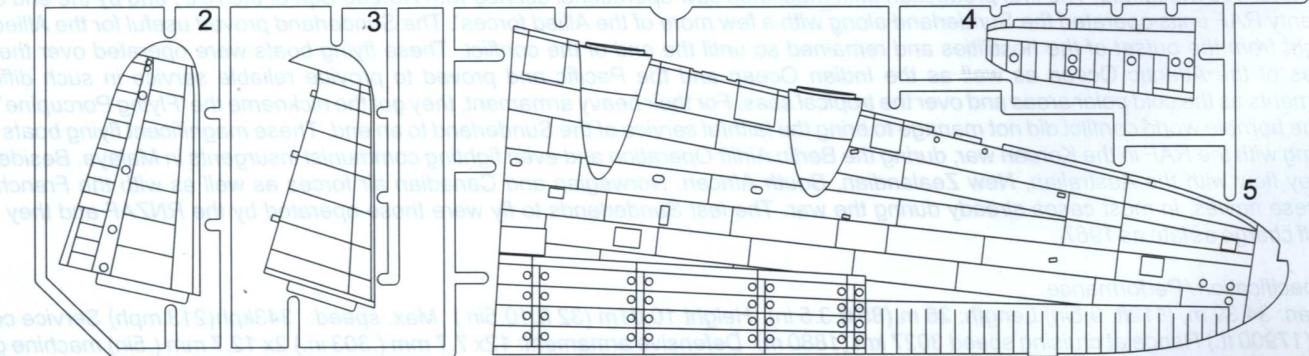
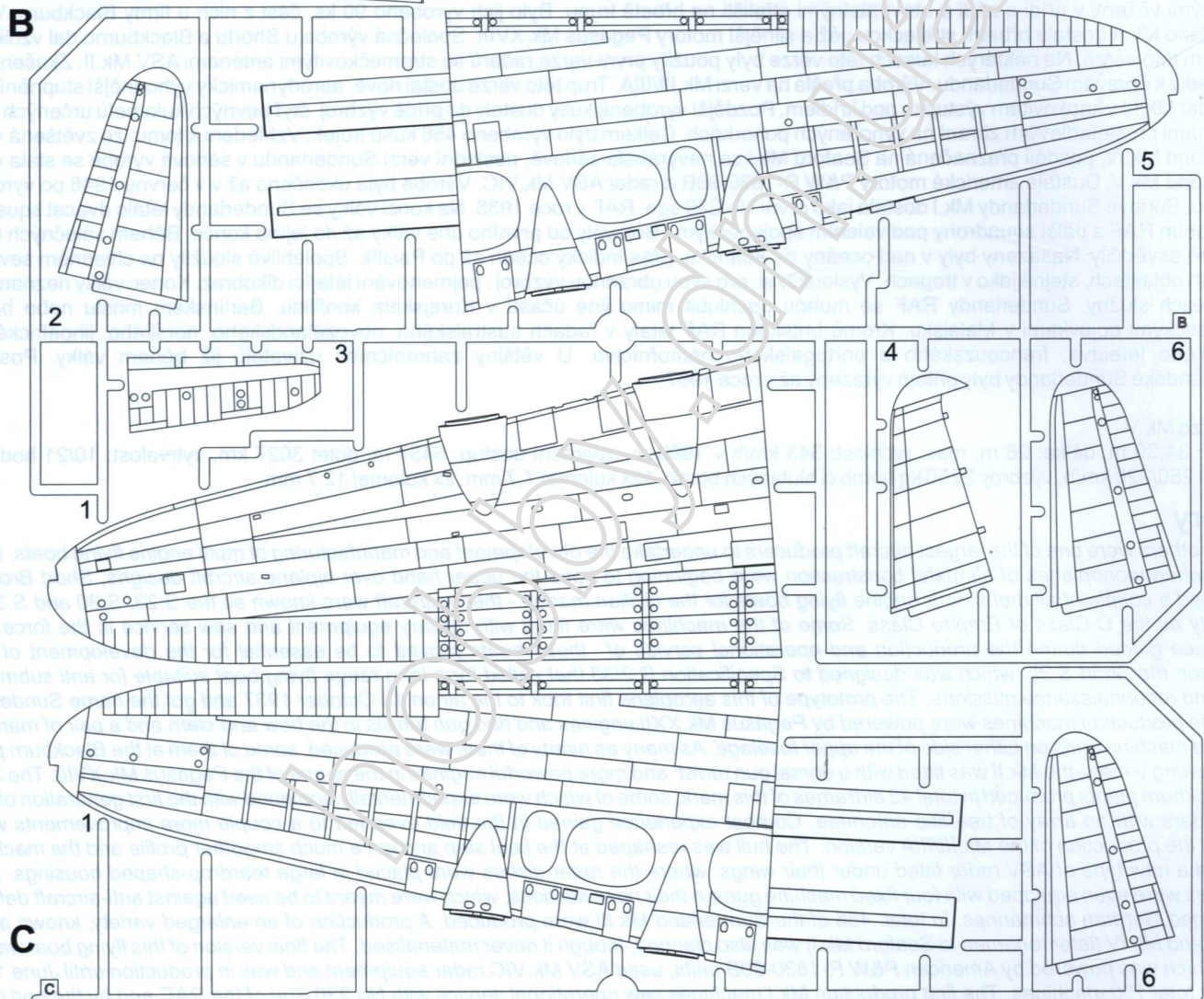
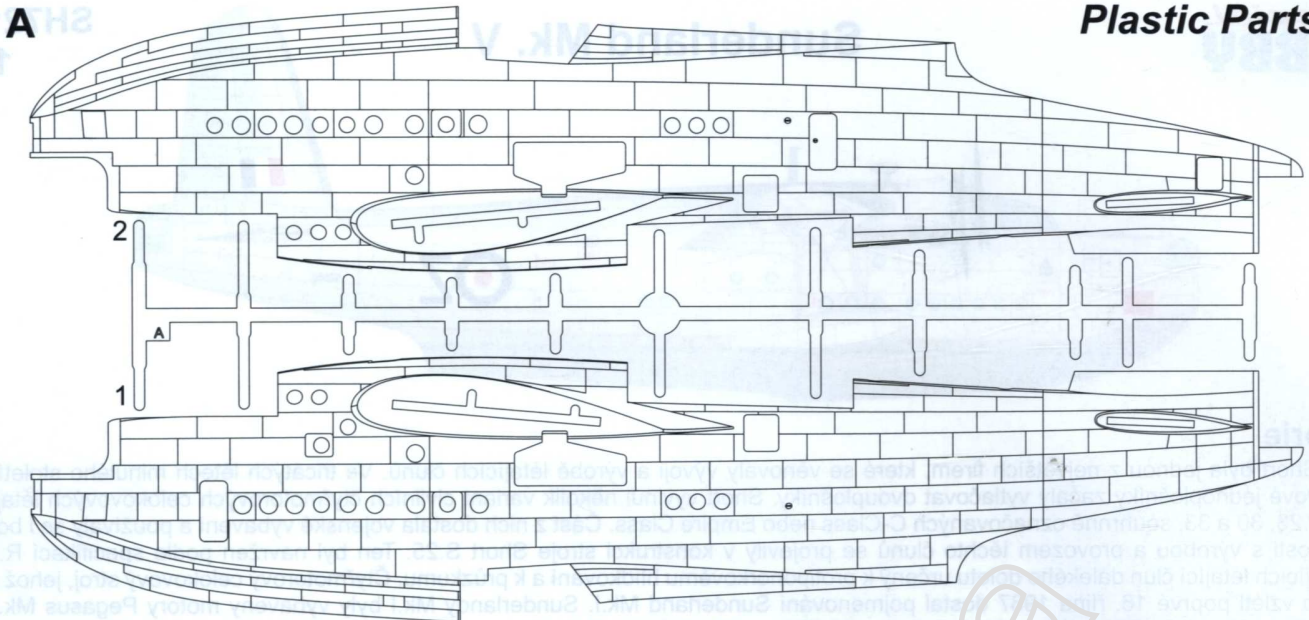
History

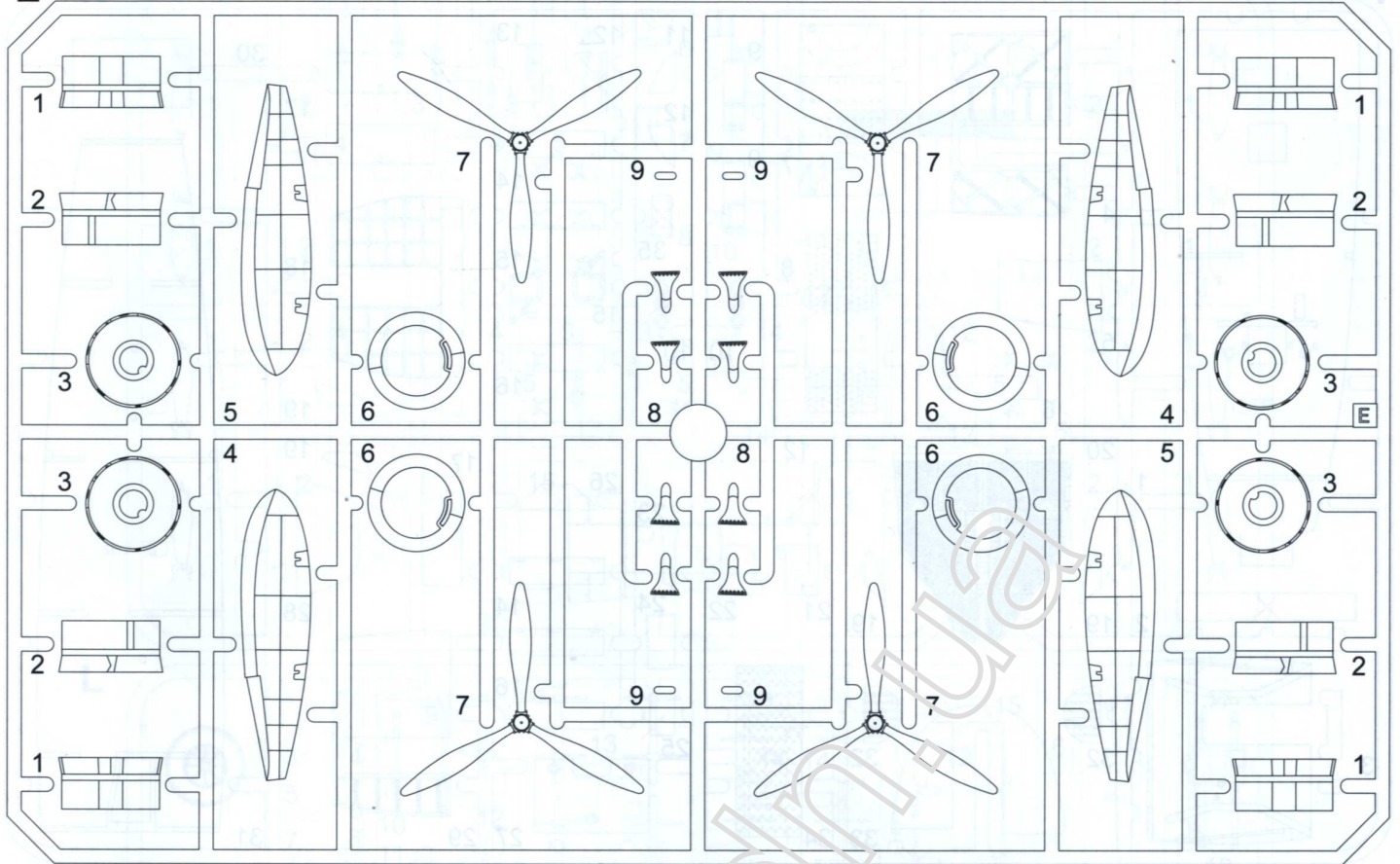
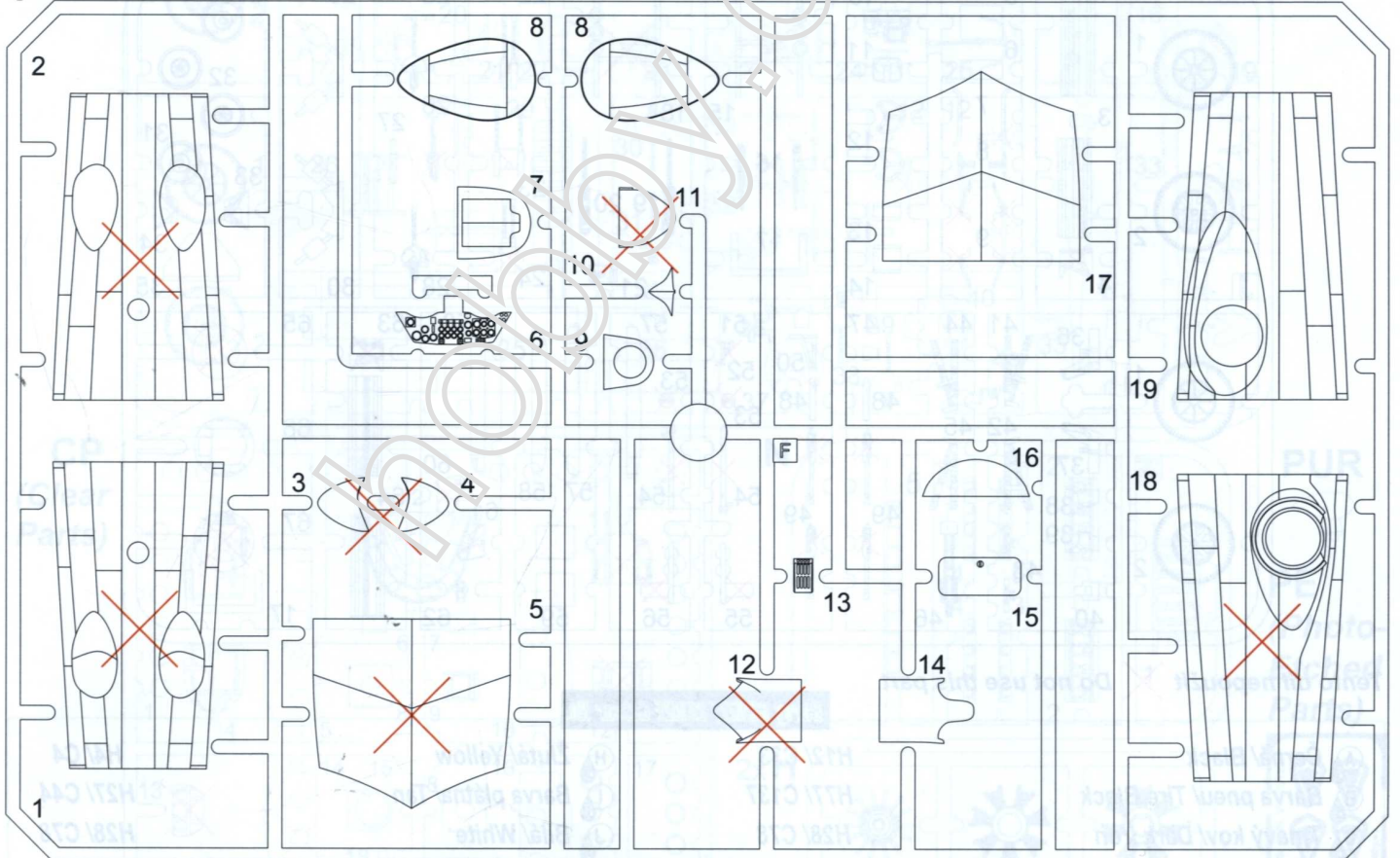
Short Brothers were one of the largest aircraft producers to undertake the development and manufacturing of multi engine flying boats. In the 1930s, when monoplanes of all metal construction were beginning to have the upper hand over biplane aircraft designs, Short Brothers developed a couple of all metal, four engine flying boats for the civilian market - these aircraft were known as the S.23, S.30 and S.33, or generally as the C-Class or Empire Class. Some of the machines were fitted with military equipment and saw service in the force. The experience gained during the production and operational service of these boats proved to be essential for the development of their successor, the Short S.25, which was designed to Specification R.2/33 that called for a long range flying boat suitable for anti submarine patrol and reconnaissance missions. The prototype of this aeroplane first took to the air on 16 October 1937 and got the name Sunderland Mk.I. The production machines were powered by Pegasus Mk.XXII engines and had gun turrets in the bow and stern and a pair of manually operated machine guns on either side of the upper fuselage. As many as ninety of them were produced, some of them at the Blackburn plant. The following variety, the Mk.II was fitted with a dorsal gun turret and more powerful engines in the shape of the Pegasus Mk.XVIII. The Short and Blackburn plants produced in total 43 airplanes of this mark, some of which were experimentally equipped with the first generation of ASV Mk.II radars with an array of tree-like antennae. Combat experience gained in the field even led to a couple more improvements which enabled the production of the Mk.III/IIIA version. The hull was reshaped at the keel step and got a much smoother profile and the machines also had a new type of ASV radar fitted under their wings, where the radar dishes were placed in large teardrop-shaped housings. Later machines were even equipped with four fixed machine guns in their nose sections, which were meant to be used against anti-aircraft defence of emerged German submarines. In total, 456 of the Sunderland Mk.III were produced. A production of an enlarged variety, known as the Sunderland Mk.IV (later renamed to Seaford Mk.I) was also planned, though it never materialised. The final version of this flying boat was the Mk.V, which was powered by American P&W R-1830-90B units, used ASV Mk.VIC radar equipment and was in production until June 1946, giving in total 150 machines. The first production Mk.I machines saw operational service with No.230 Sqn of the RAF, and by the end of the War, twenty RAF units operated the Sunderland along with a few more of the Allied forces'. The Sunderland proved useful for the Allied war effort right from the outset of the hostilities and remained so until the end of the conflict. These flying boats were operated over the vast expanses of the Atlantic Ocean as well as the Indian Ocean and the Pacific and proved to provide reliable service in such different environments as the cold polar areas and over the tropical seas. For their heavy armament, they got the nickname the 'Flying Porcupine'. The end of the horrible world conflict did not manage to bring the faithful service of the Sunderland to an end. These magnificent flying boats went on serving with the RAF in the Korean war, during the Berlin Airlift Operation and even fighting communist insurgents in Malaya. Besides the RAF, they flew with the Australian, New Zealandian, South African, Norwegian and Canadian air forces as well as with the French and Portuguese navies, in most cases already during the war. The last Sunderlands to fly were those operated by the RNZAF and they were struck off charge as late as 1967.

EN

Mk.V Specification / Performance

Wingspan: 34.39 m, (112ft. 9.5in) Length: 26 m, (85 ft. 3.5 in) Height 10.01m (32 ft. 10.5in) Max. speed: 343kph (213 mph) Service ceiling 5457m (17900 ft.) Range at cruising speed 3027 km (1880 m) Defensive armament: 12x 7.7 mm (.303 in.) 2x 12.7 mm (.5in) machine guns. Offensive ordnance 2250 kg (4960lbs)



E**F****SYMBOLS**

MOŽNOST VOLBY
OPTIONAL
NACH BELIEBEN
OPTION



POUŽÍŤ KYANOAKRYLÁTOVÉ LEPIDLO
INSTANT CYANOACRYLATE GLUE
ZYANOAKRYLÁTKLEBER
COLLE CYANOACRYLAT



OHNOUT
BEND
BIEGEN
COURBER



ZHOTOVIT NOVÉ
SCRATCH BUILD
FERTIGSTELLEN
ACHEVER

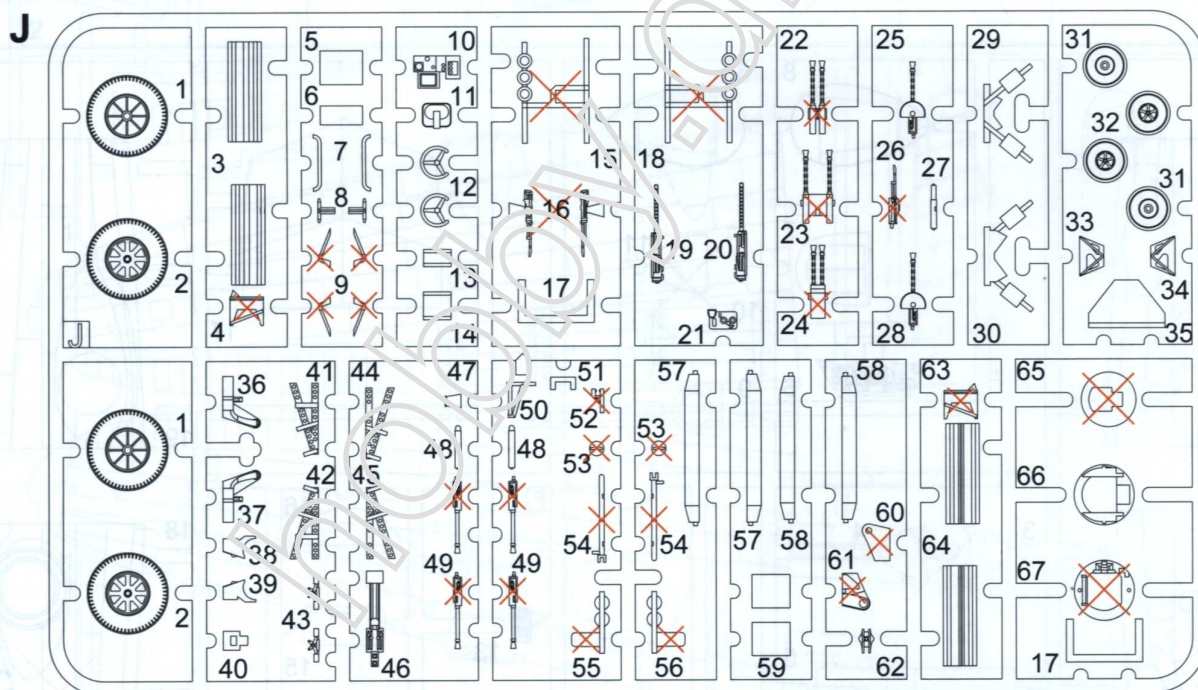
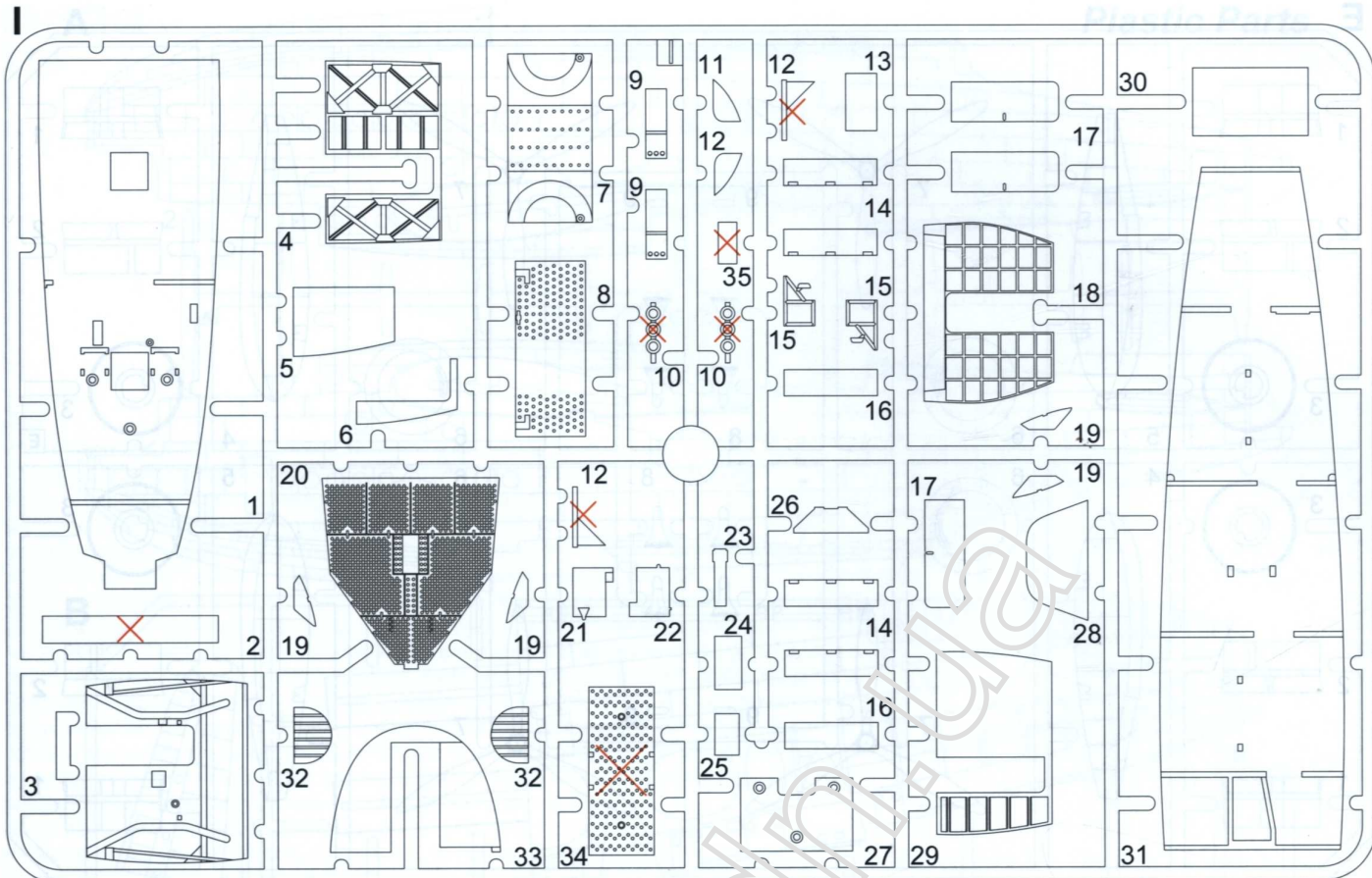


ŘEZAT/VRTAT
CUT OFF/DRILL
ENTFERNEN
DETACHER



GSI
colour code

NATRÍT
COLOUR
FARBEN
PEINDRE

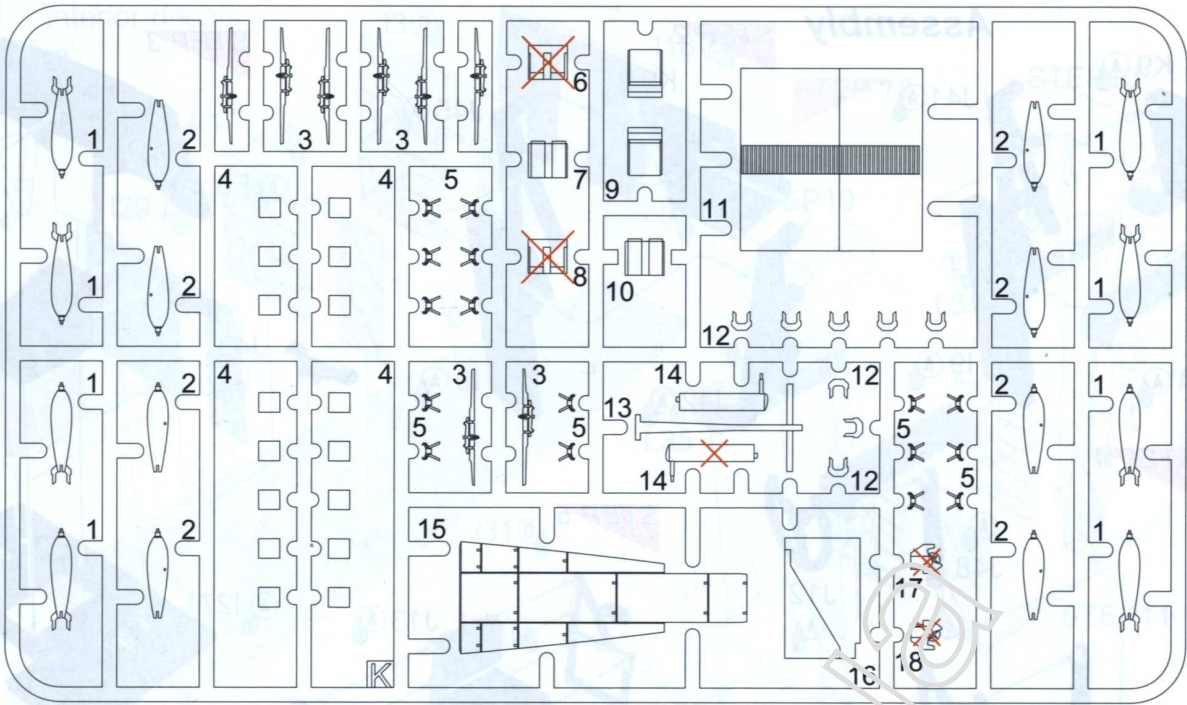


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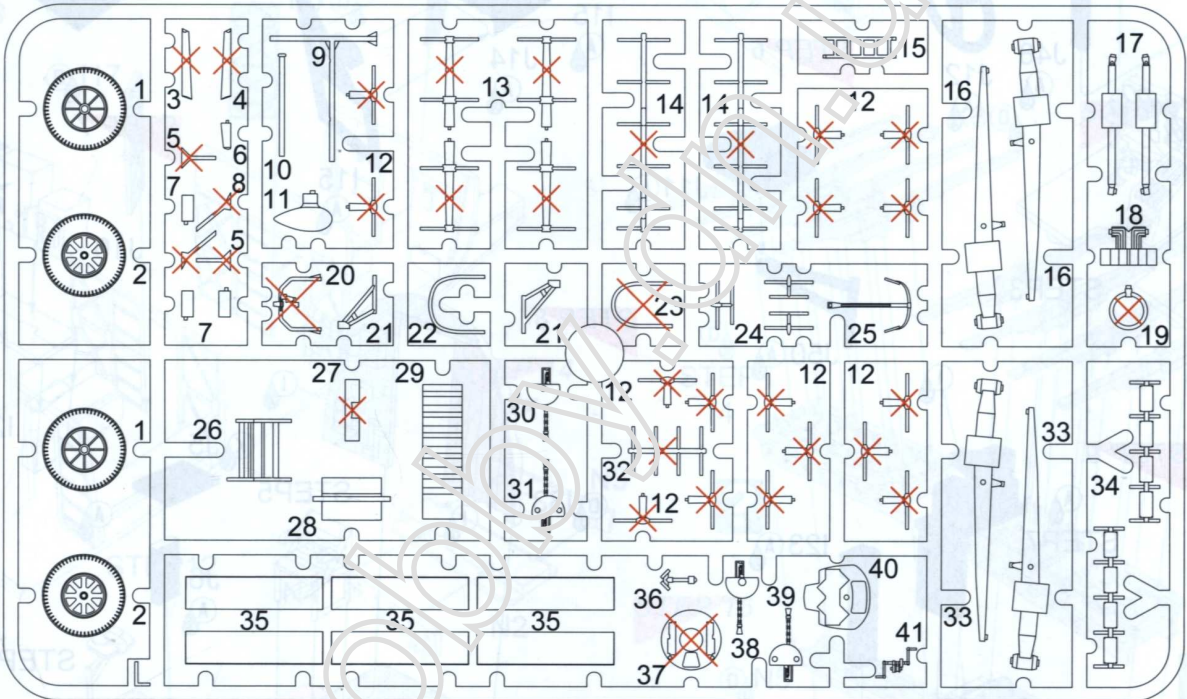
Barvy GUNZE/ GUNZE Colour No.

A Černá/ Black	H12/ C33	H Žlutá/ Yellow	H4/ C4
B Barva pneu/ Tire Black	H77/ C137	I Barva plátna/ Tan	H27/ C44
C Tmavý kov/ Dark Iron	H28/ C78	J Bílá/ White	H28/ C78
D Hliník/ Aluminium	H8/ C8	K Dřevo/ Wood	H37/ C43
E Inter. šedozelená/ Inter. Grey Green	C364	L Opálený kov/ Burnt Iron	H76/ C61
F Motorová šedá/ Engine Grey	H339/ C339	M Barva kůže/ Red Brown	H17/ C29
G Červená/ Red	H43/ C100		

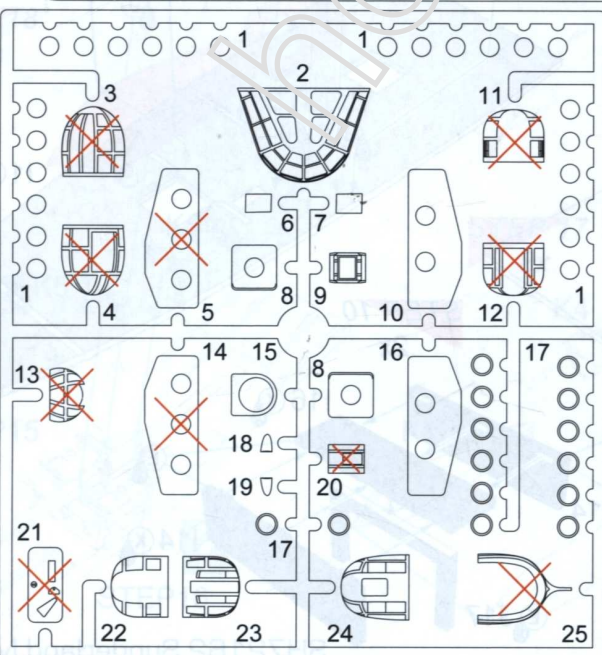
K



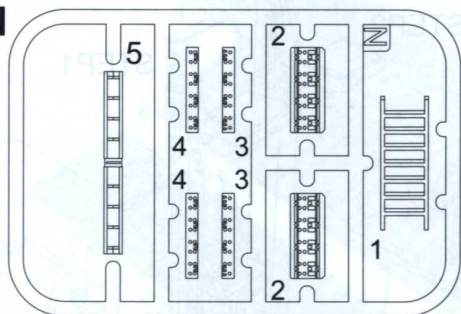
L



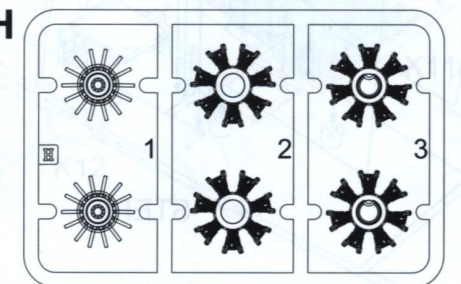
CP
(Clear
Parts)



N



2xH



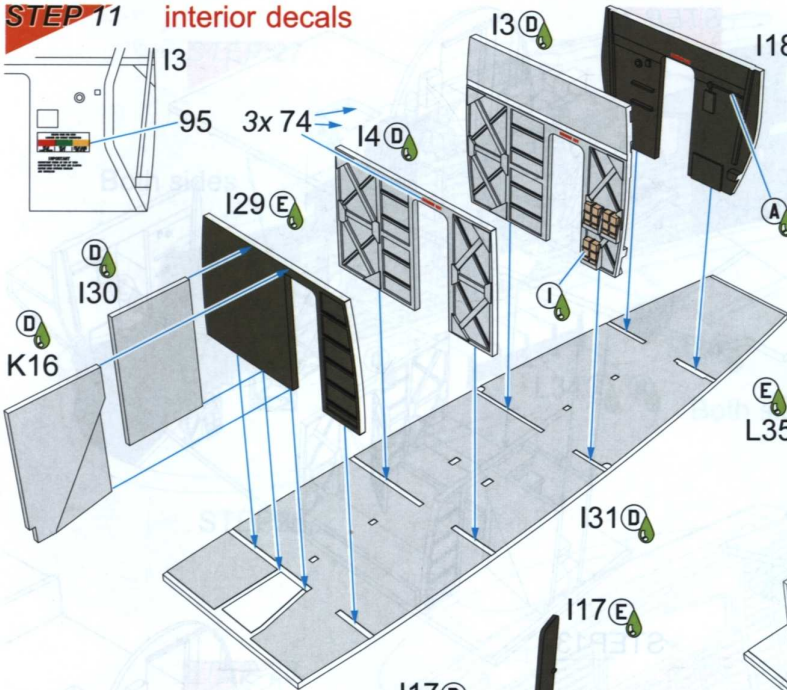
PUR



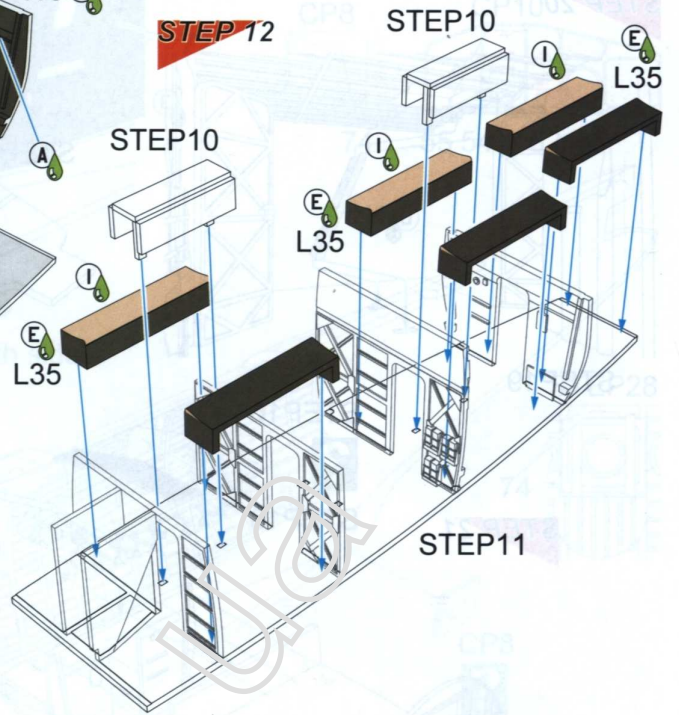
PE
(Photo-
Etched
Parts)



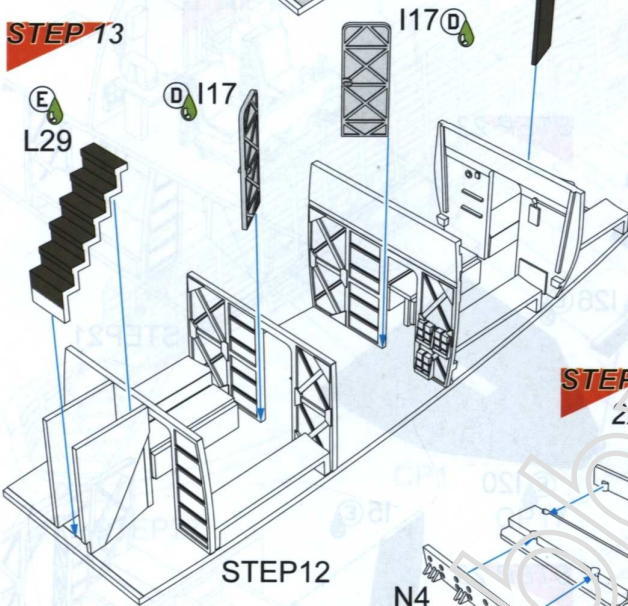
STEP 11 interior decals



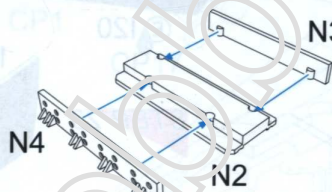
STEP 12



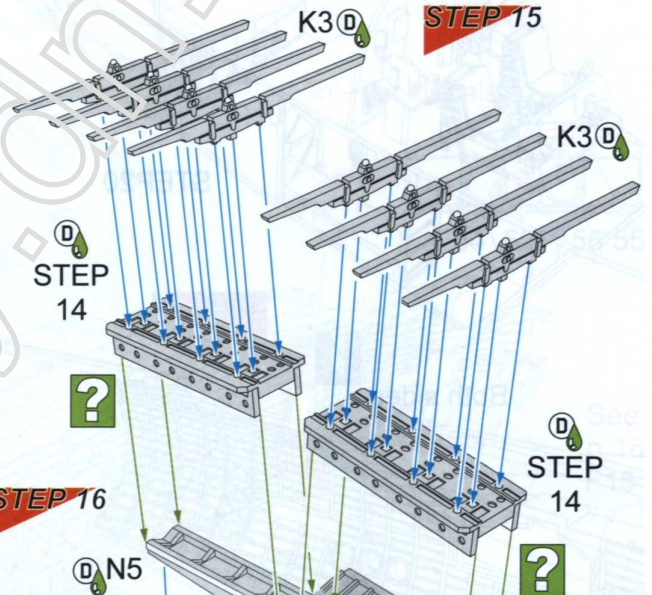
STEP 13



STEP 14
2x



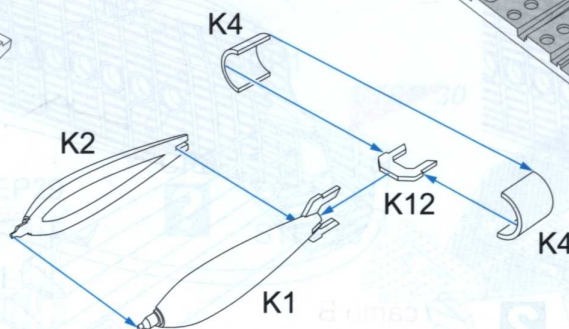
STEP 15



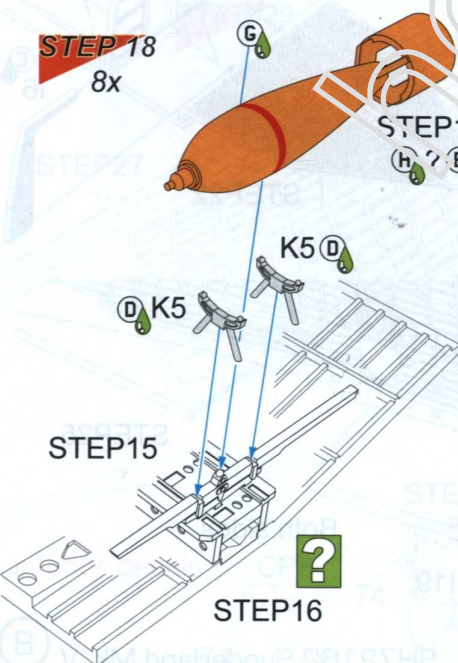
STEP 18
8x



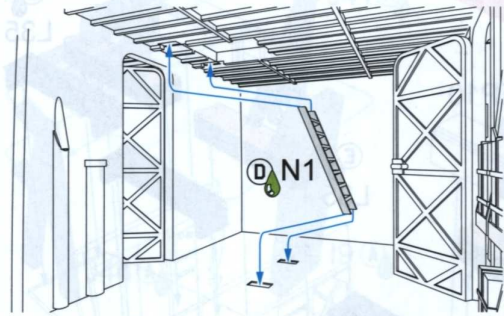
STEP 17
8x



STEP 16

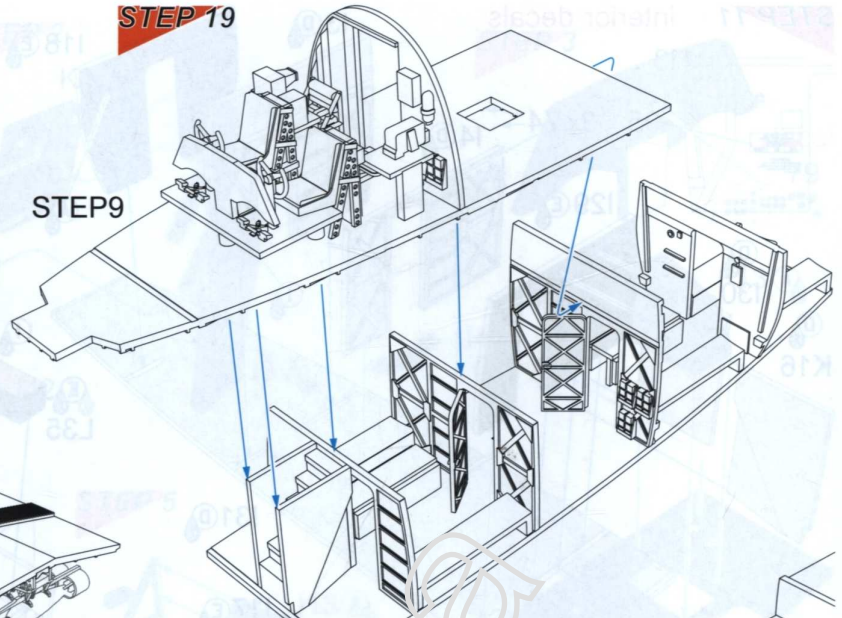


STEP 20



STEP19

STEP 19

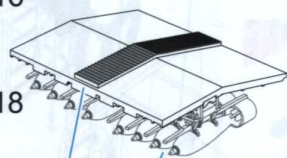


STEP9

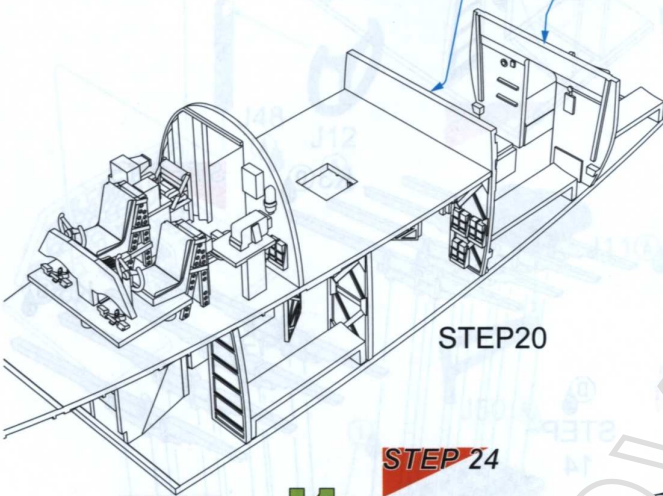
STEP 16



STEP 18



STEP 21



STEP20

STEP13

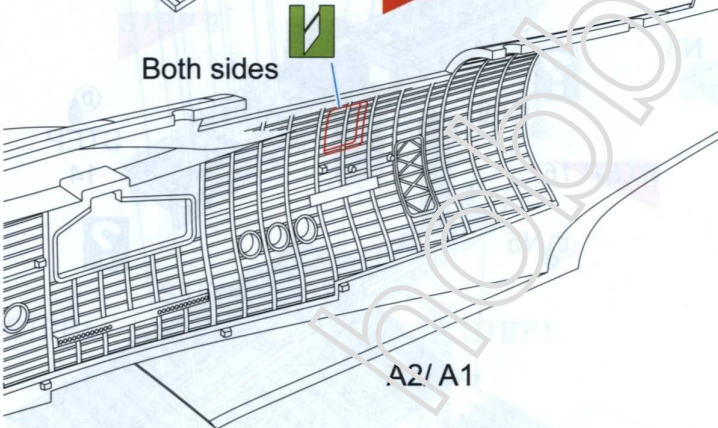
STEP 22



STEP21

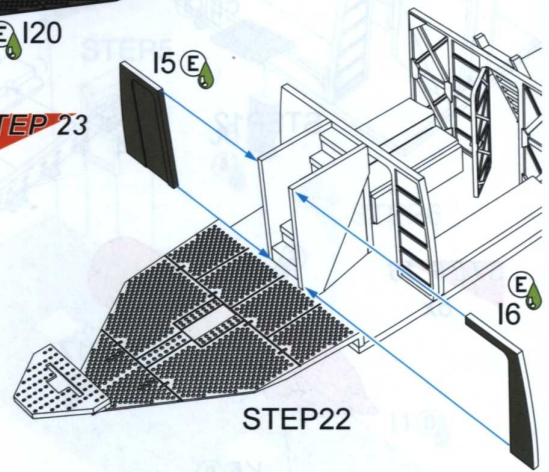
STEP 24

Both sides



A2/A1

STEP 23



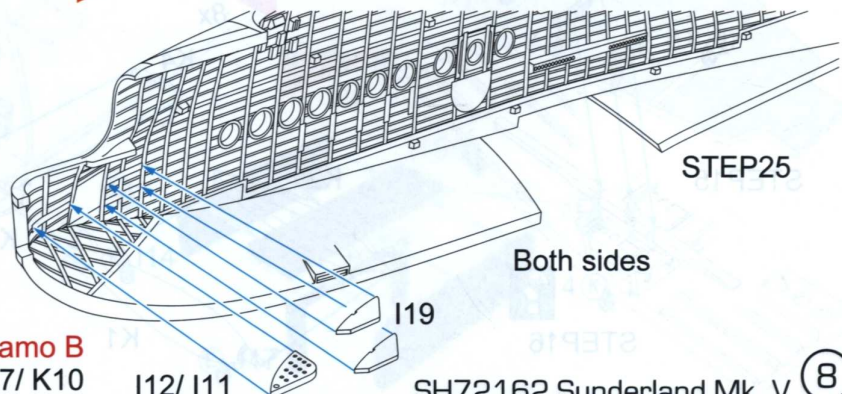
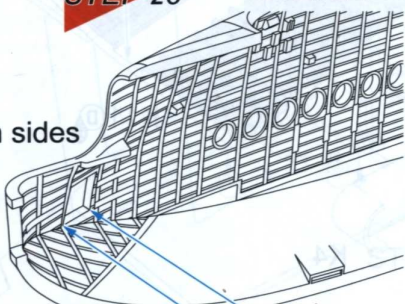
STEP22

STEP 26

STEP 25

STEP24

Both sides



STEP25

Both sides

camo A,C,D J59



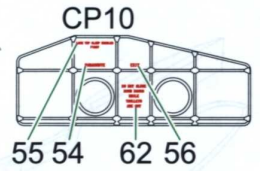
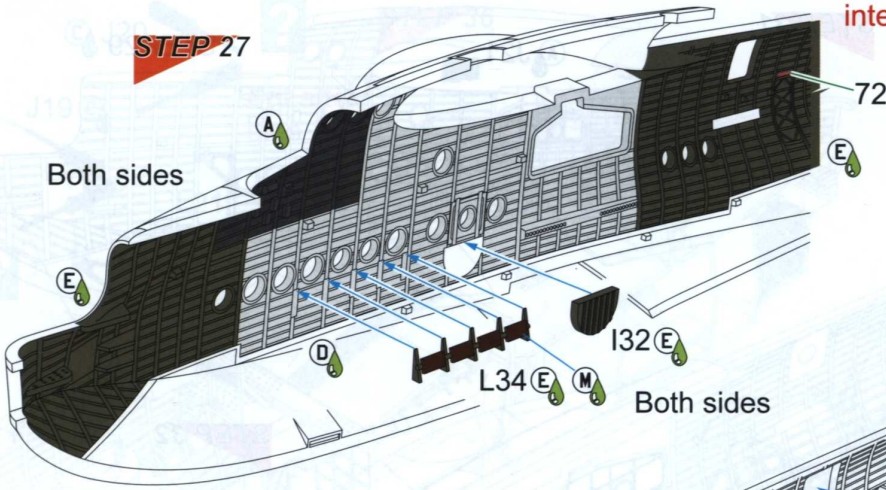
camo B K7/ K10

I12/ I11

SH72162 Sunderland Mk. V

STEP 27

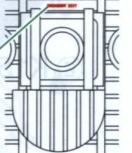
interior decals



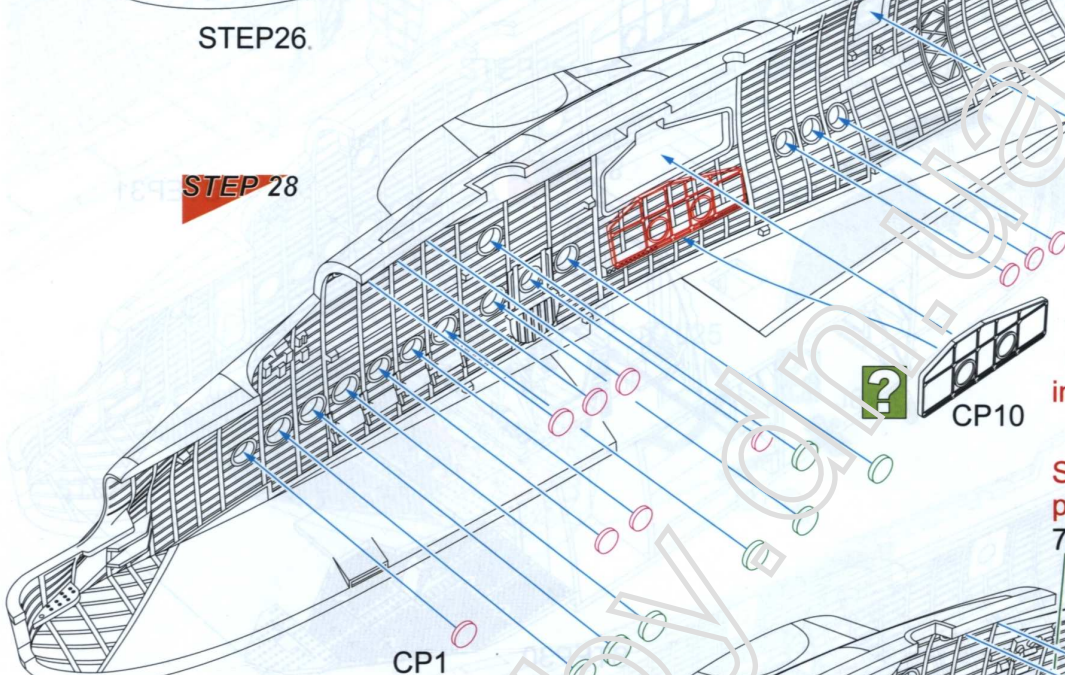
STEP 26

STEP 28

74



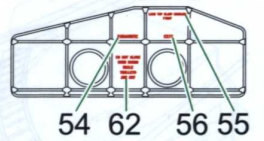
STEP 28



interior decals

CP16

See p. 16
74

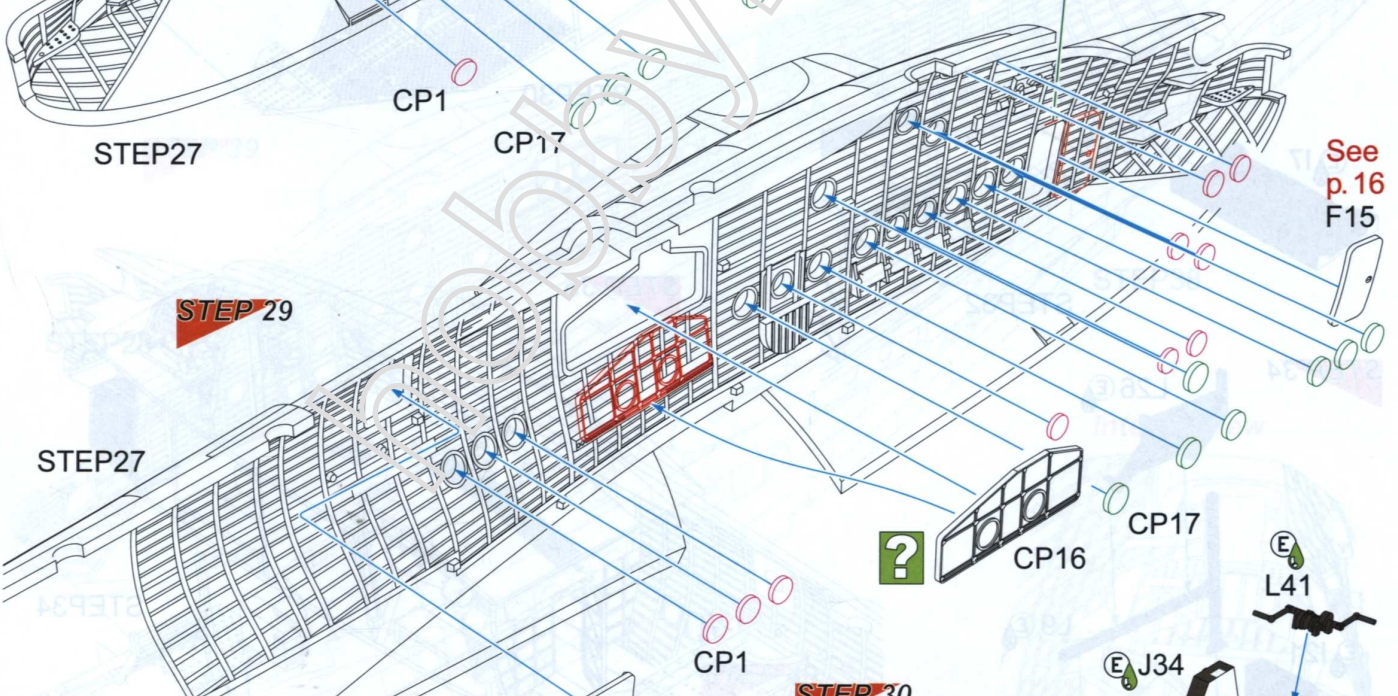


STEP 27

CP17

See p. 16
F15

STEP 29



CP16

CP17

STEP 30

STEP 23

L41

J34

J33

interior decals



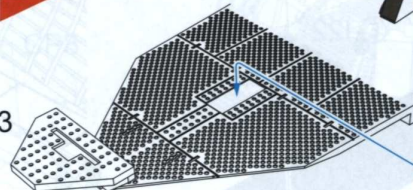
STEP 29

74

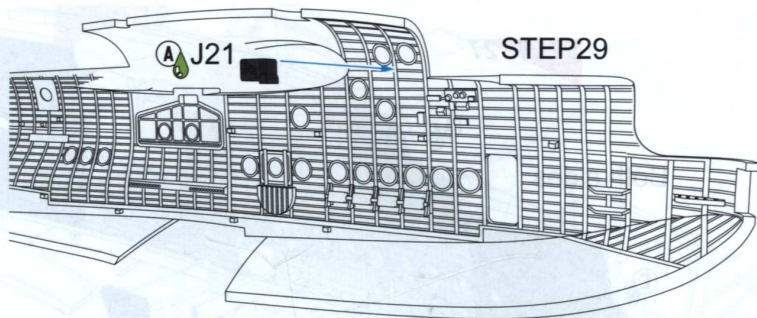
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STEP 23

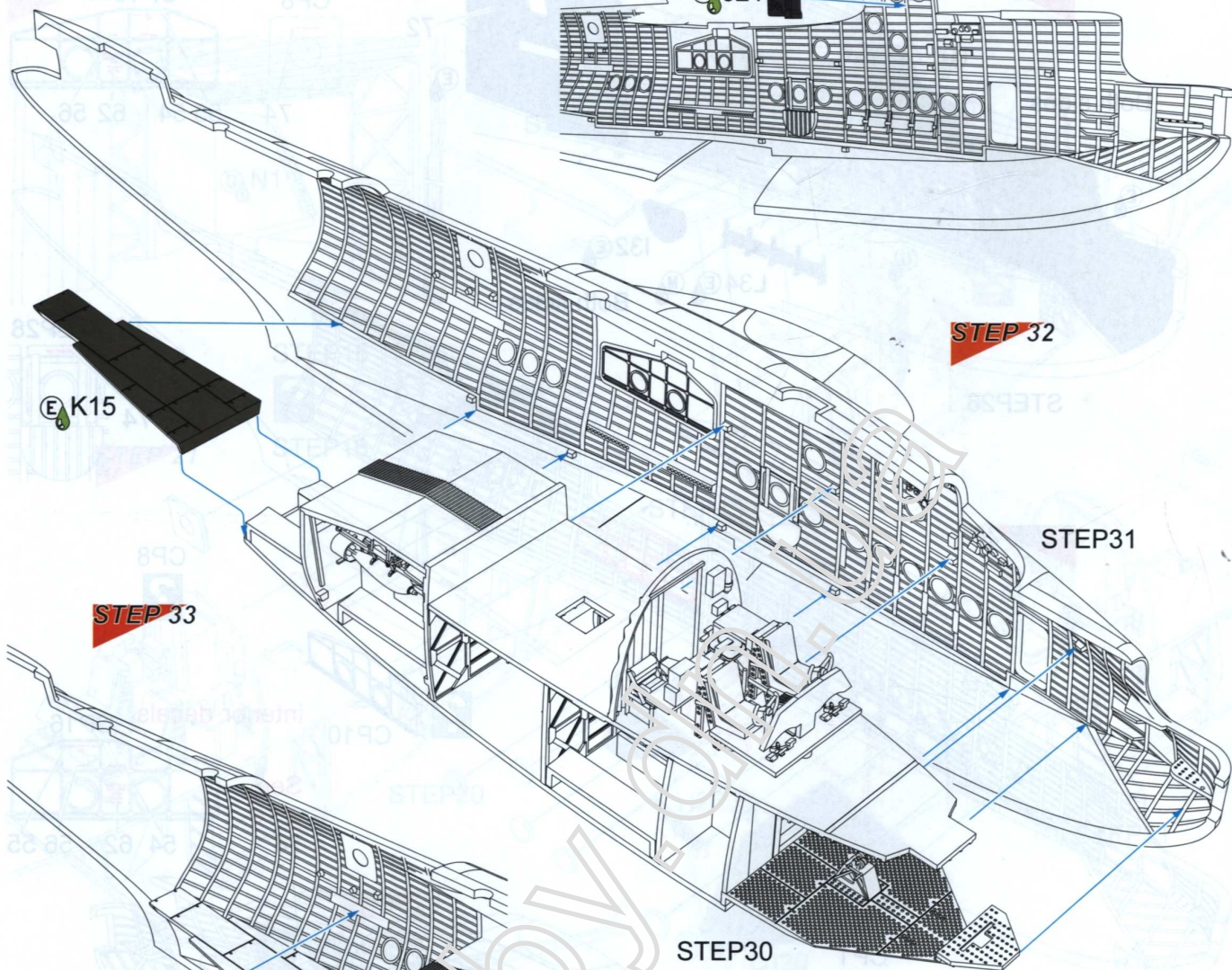


STEP 31

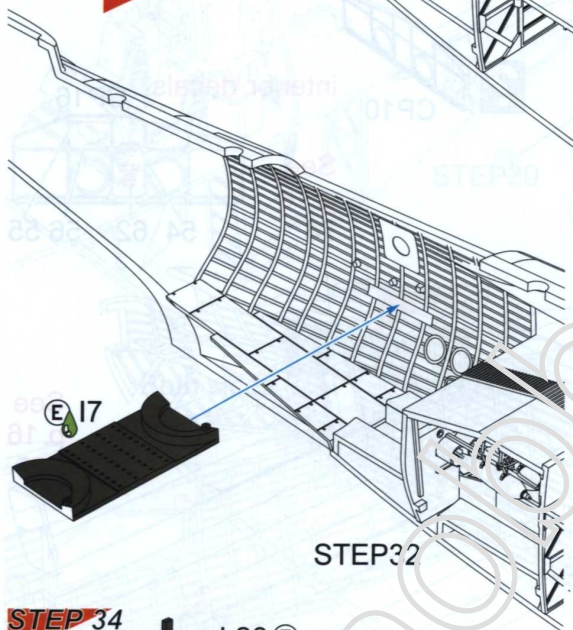


STEP 29

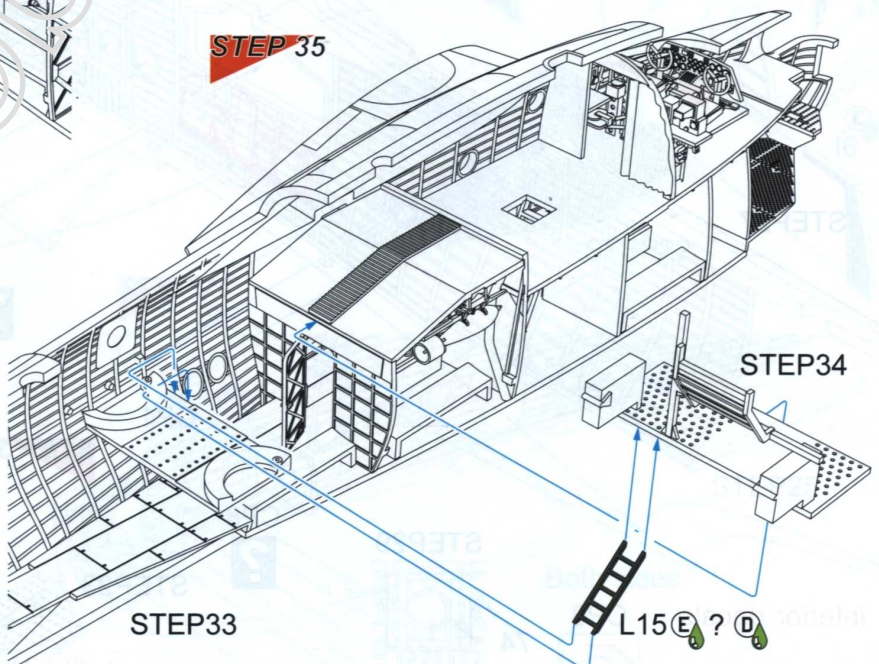
STEP 32



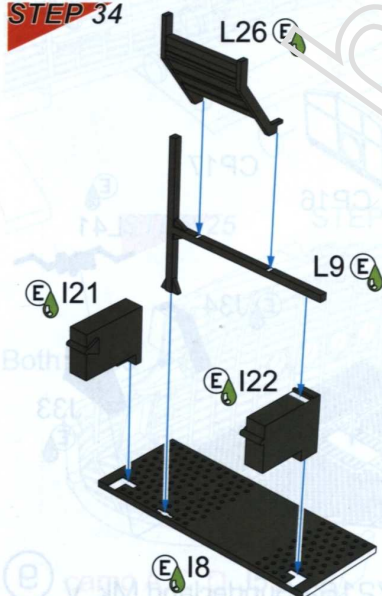
STEP 33



STEP 35

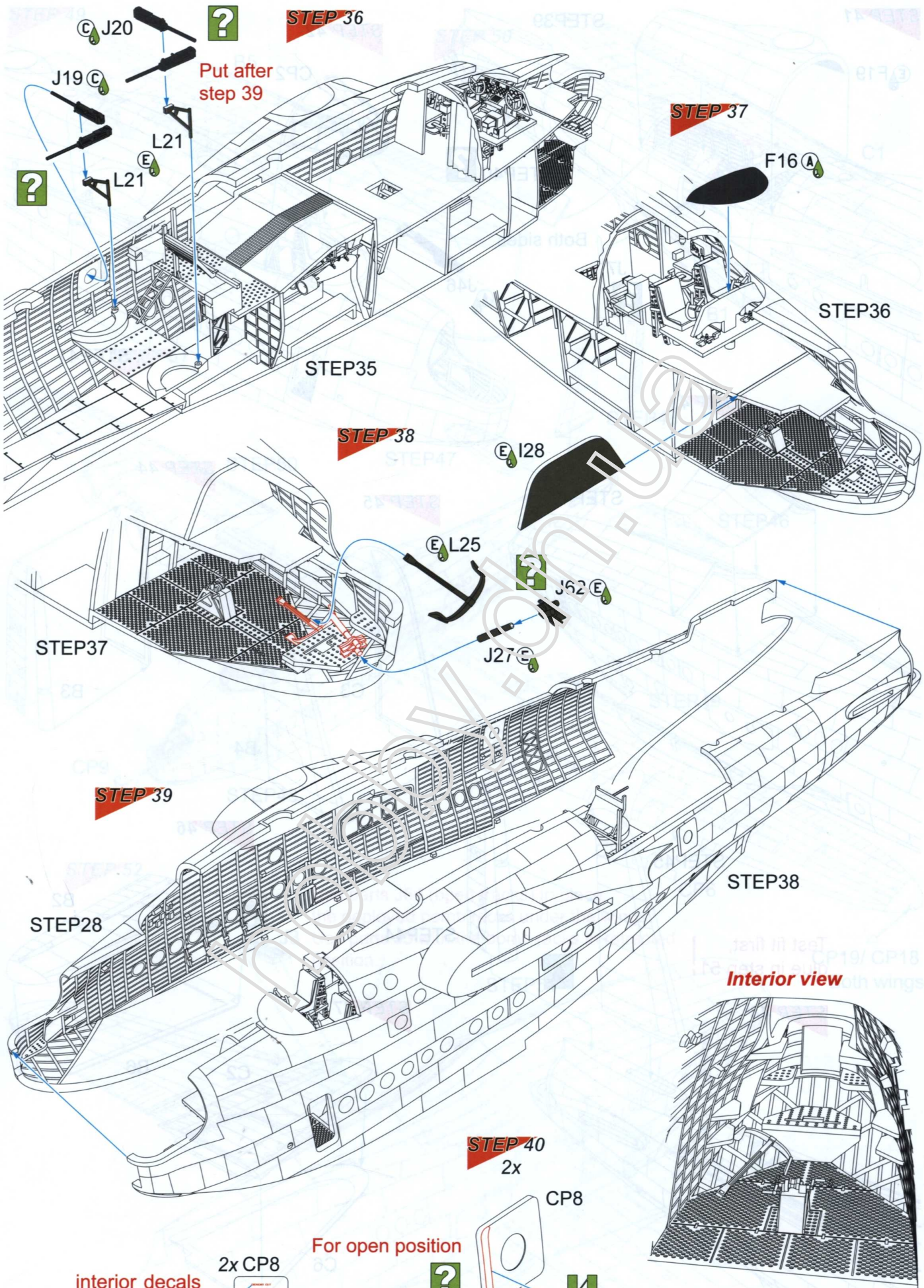


STEP 34



STEP 34

STEP 33



STEP 36
 Put after step 39

STEP 37

STEP 38

STEP 39

STEP 40
 2x

interior decals

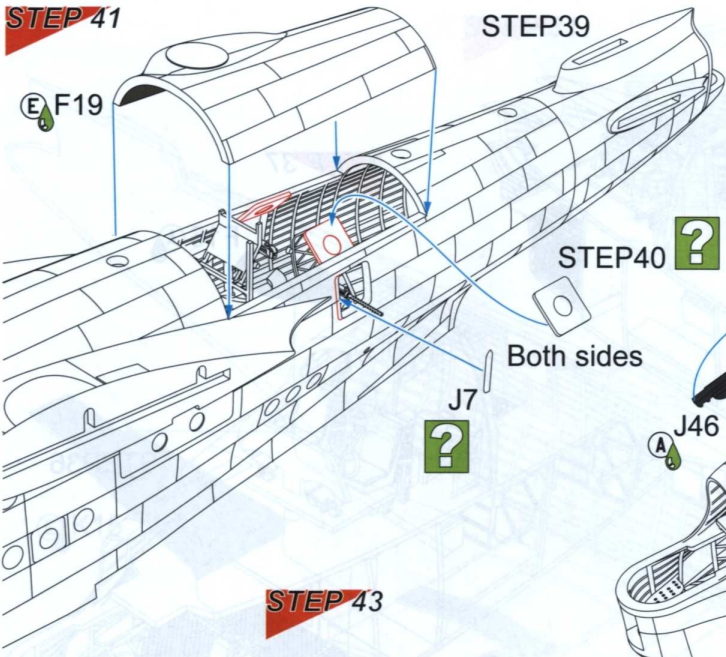
2x CP8

For open position

Interior view

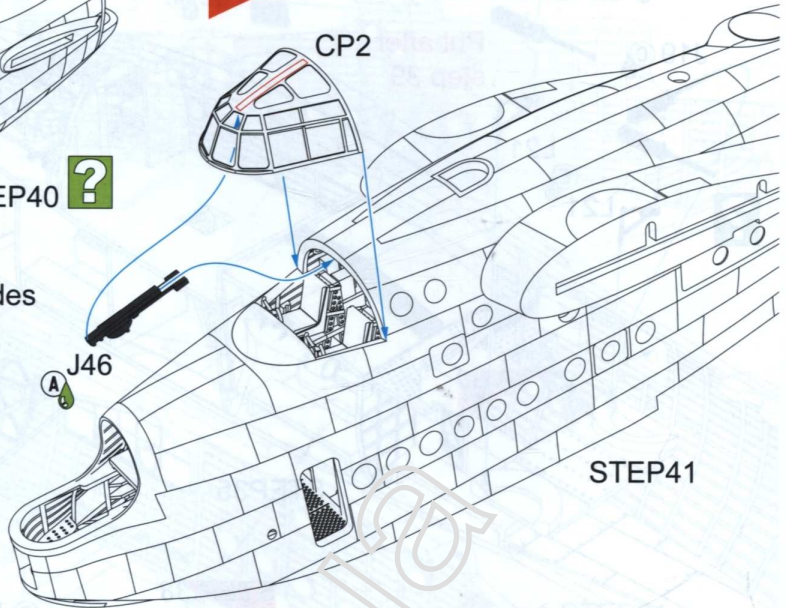
74

STEP 41



STEP 39

STEP 42



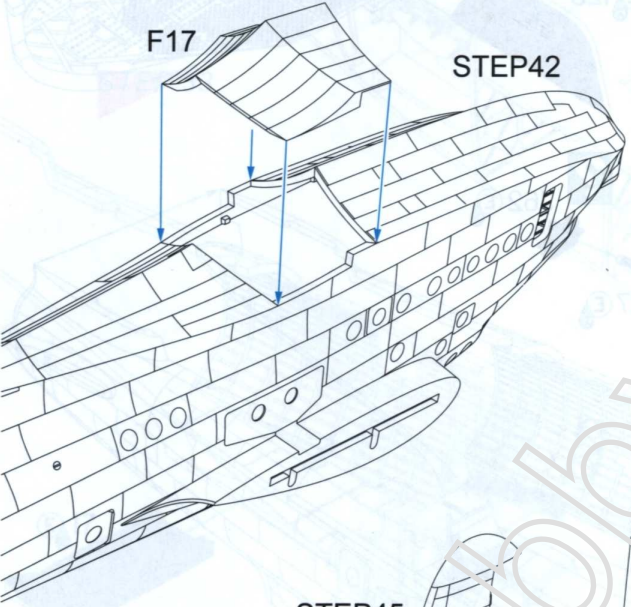
STEP 40 ?

Both sides

J7 ?

STEP 41

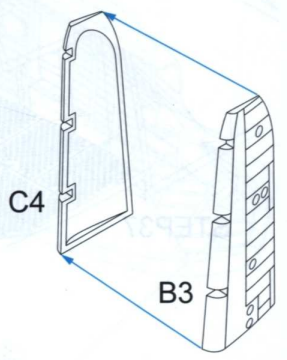
STEP 43



F17

STEP 42

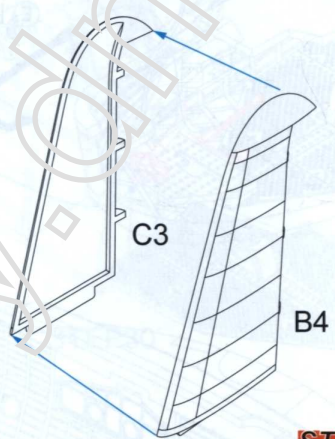
STEP 44



C4

B3

STEP 45

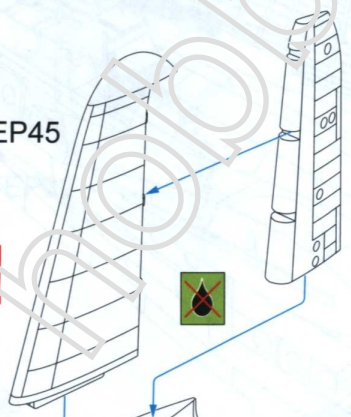


C3

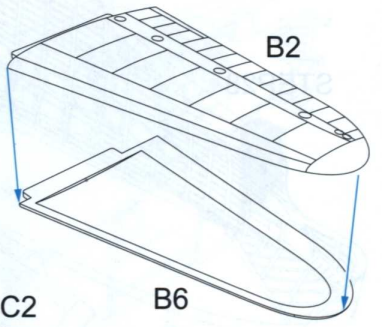
B4

STEP 45

STEP 44



STEP 46



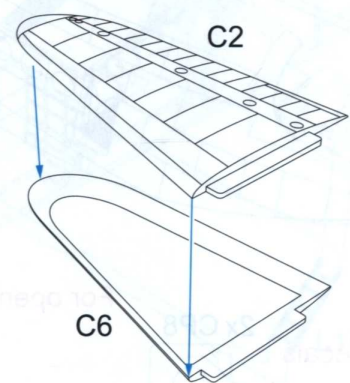
B2

B6

Test fit first, glue in step 51!

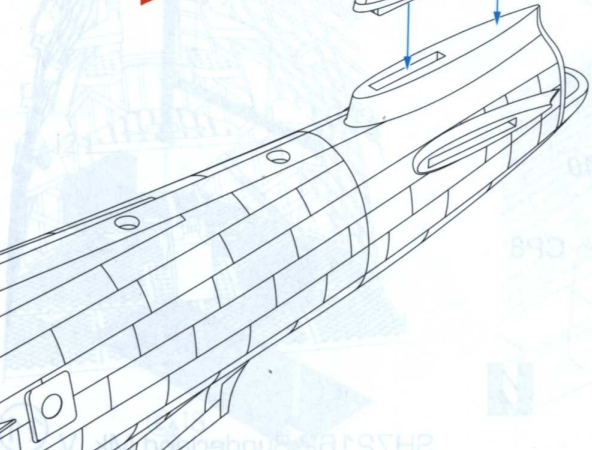
STEP 48

STEP 47

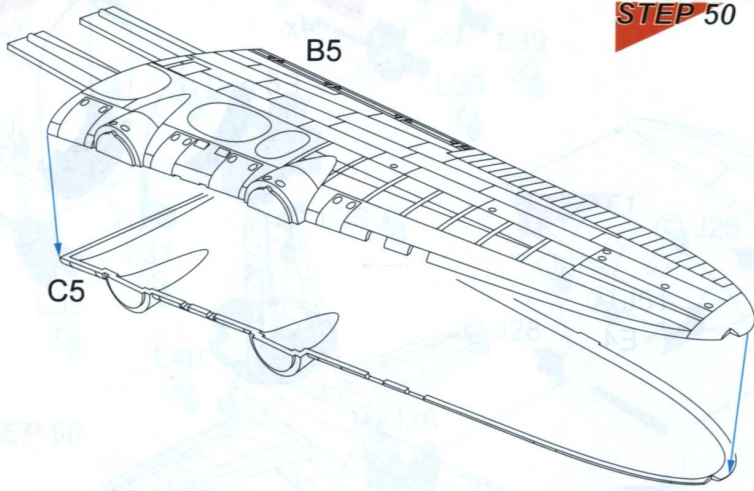


C2

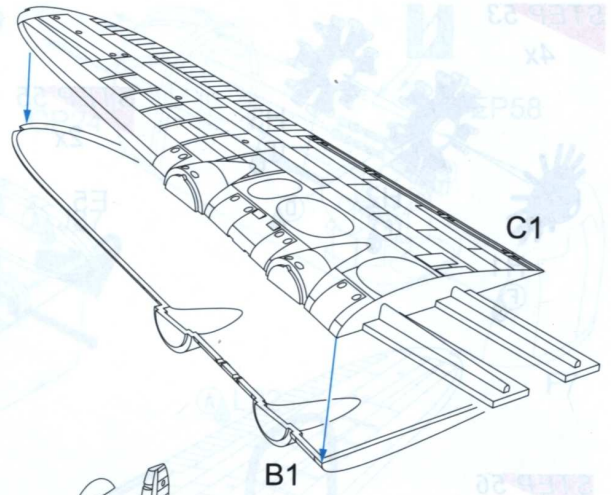
C6



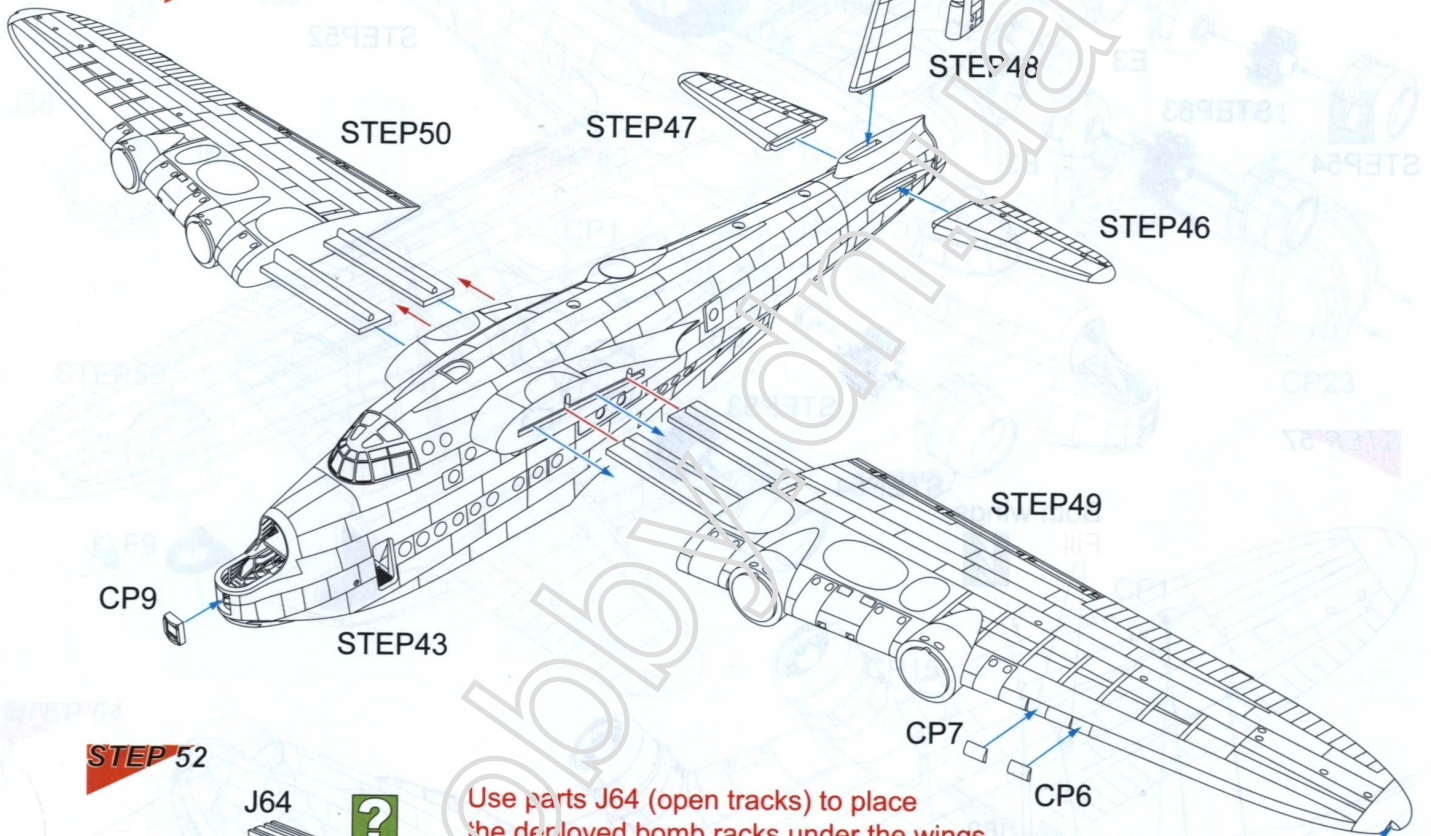
STEP 49



STEP 50



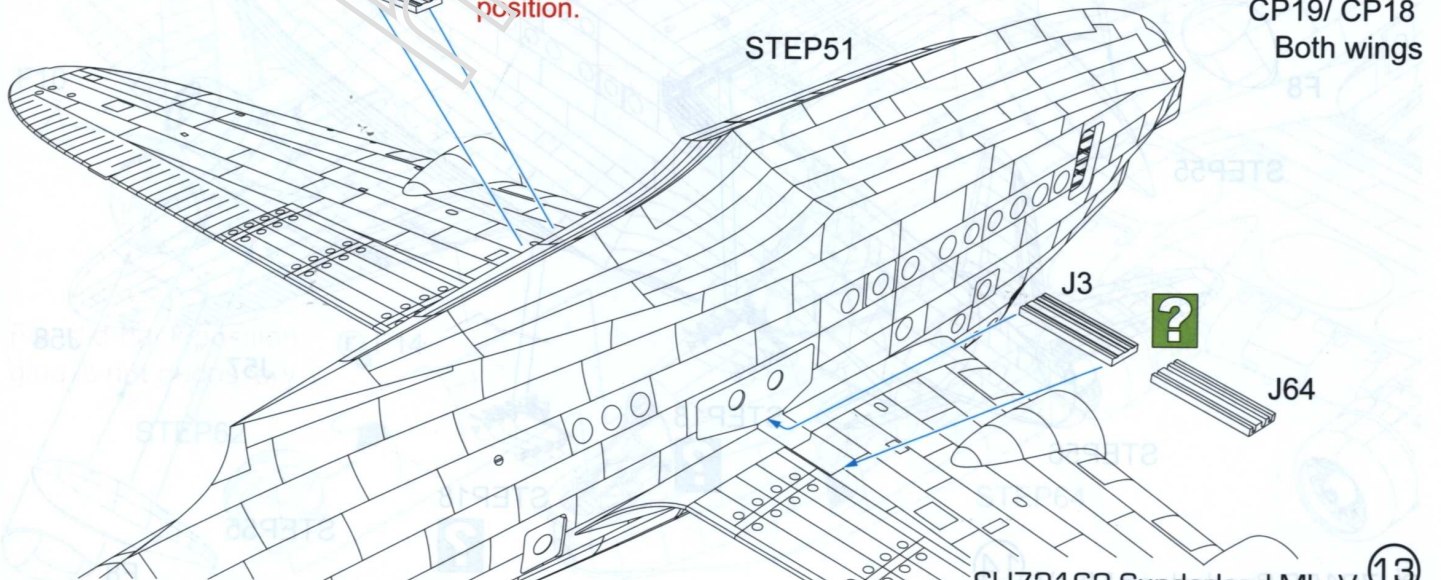
STEP 51



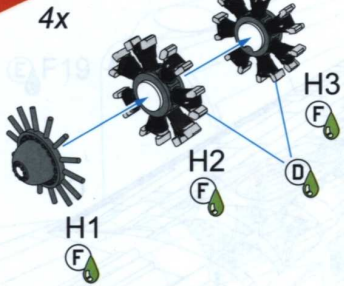
STEP 52



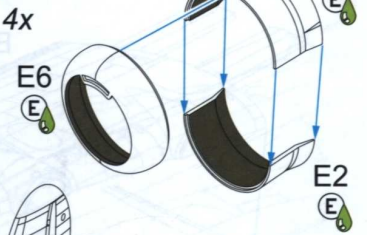
Use parts J64 (open tracks) to place the deployed bomb racks under the wings.
Use parts J3 with the bomb racks in retracted position.



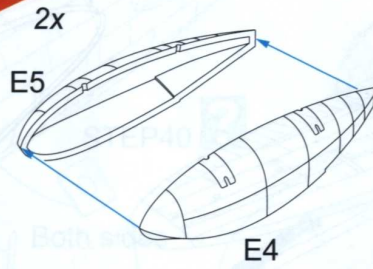
STEP 53



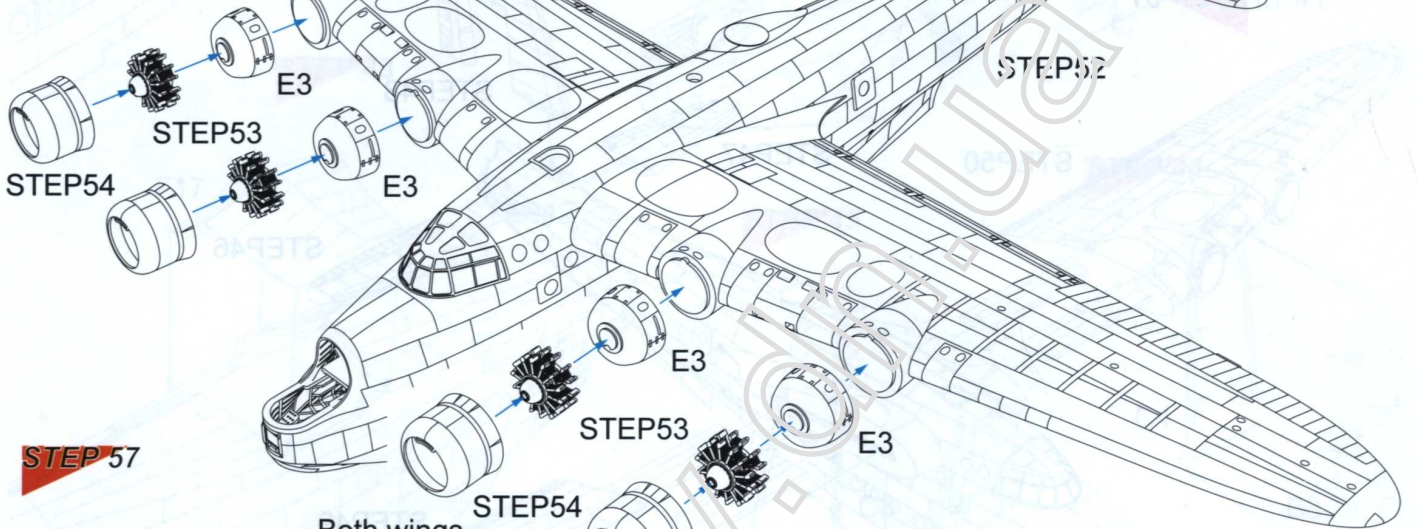
STEP 54



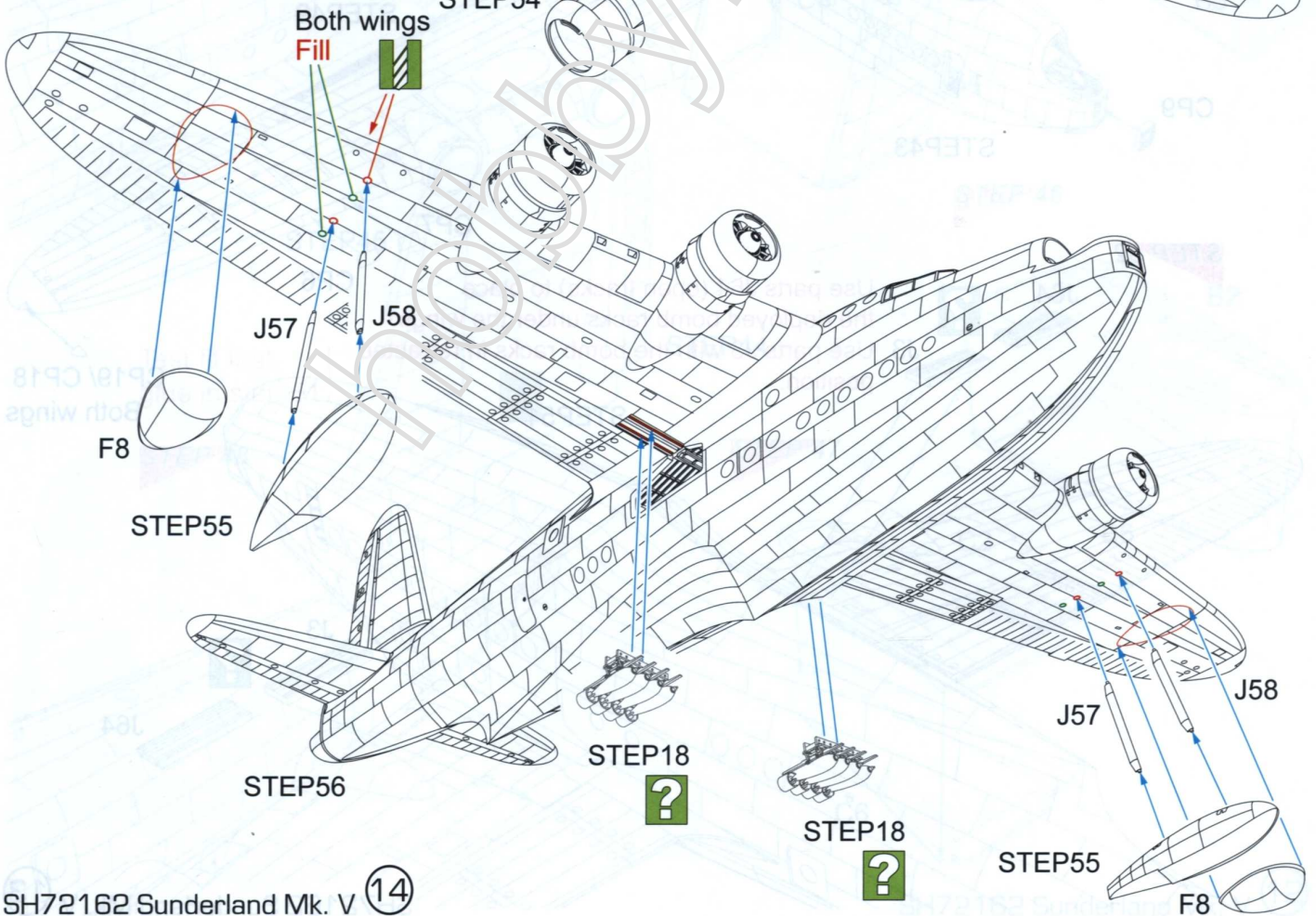
STEP 55



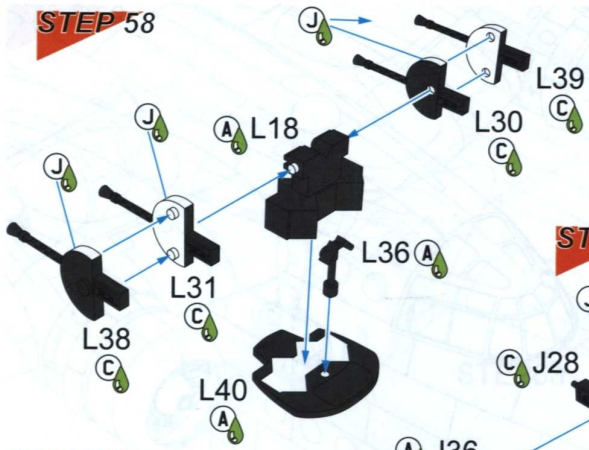
STEP 56



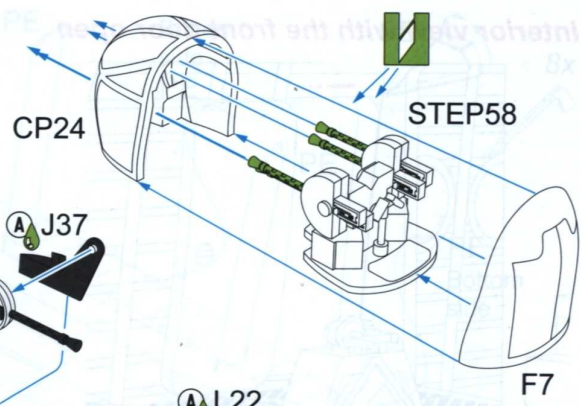
STEP 57



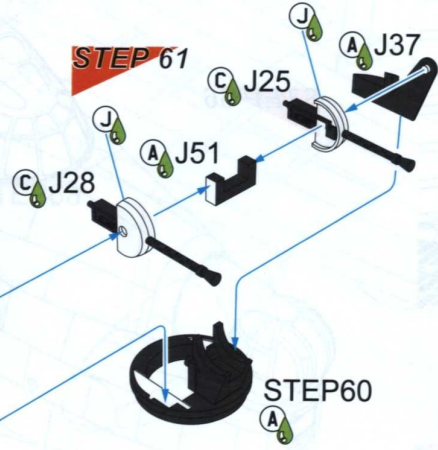
STEP 58



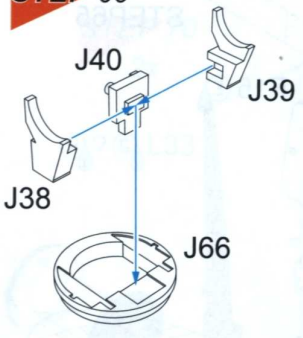
STEP 59



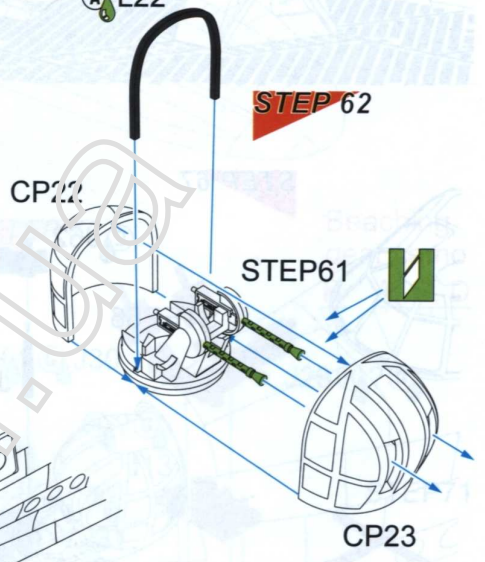
STEP 61



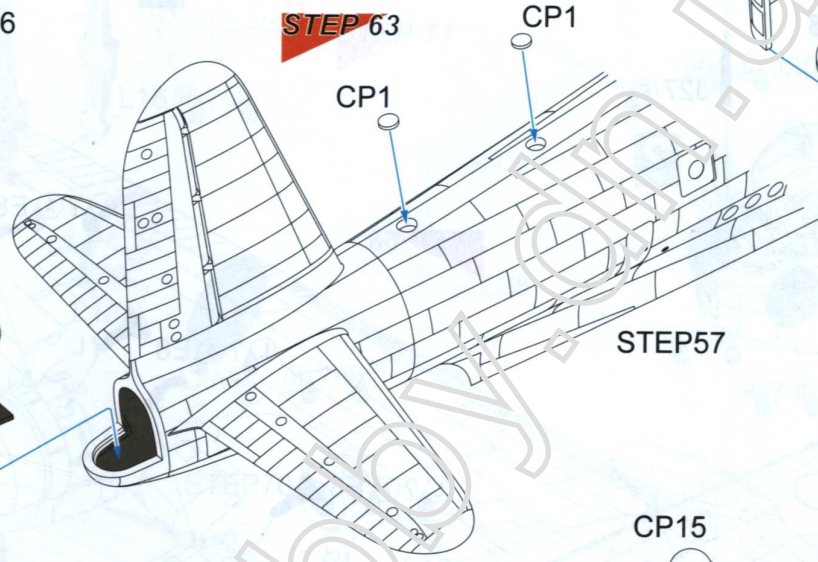
STEP 60



STEP 62



STEP 63

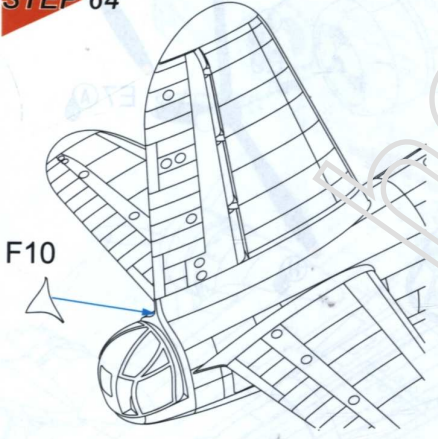


STEP 59

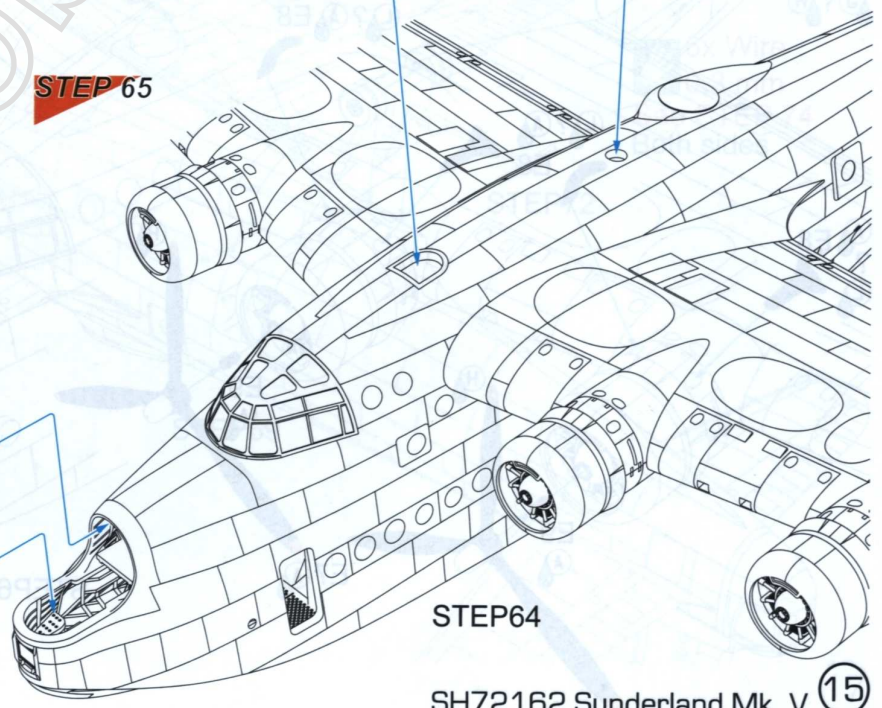


STEP 57

STEP 64



STEP 65



For slid-back position, glue is not necessary

E F14

STEP 62

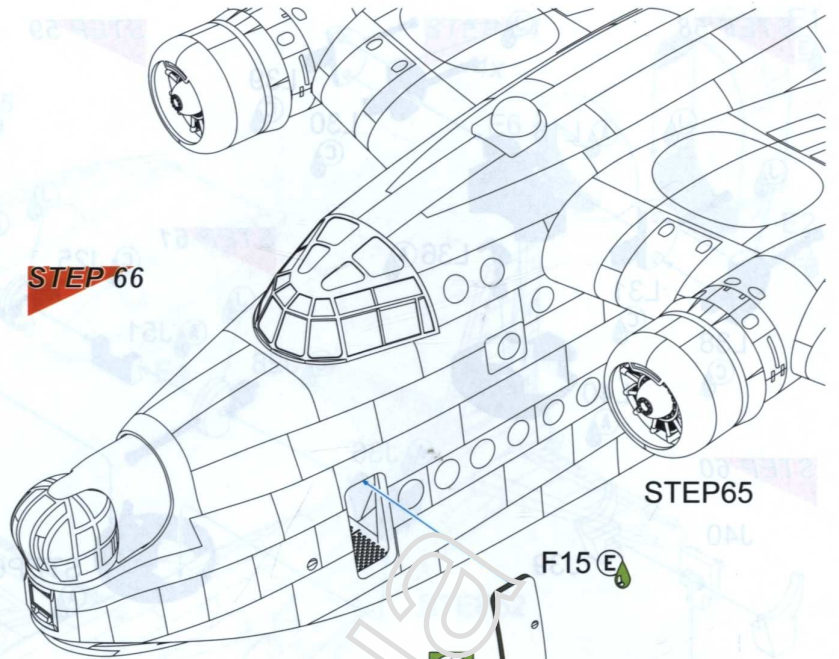


STEP 64

Interior view with the front door open



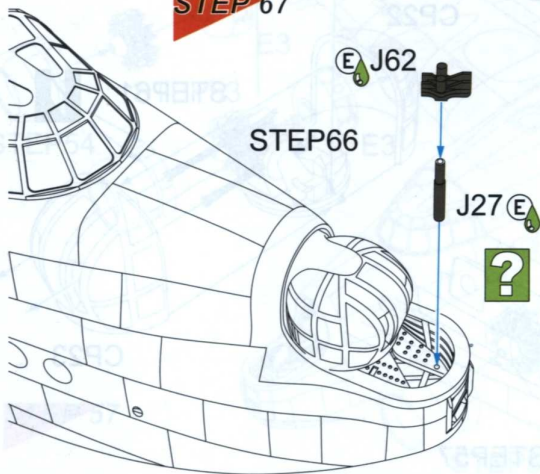
STEP 66



STEP 65

F15 E

STEP 67



STEP 66

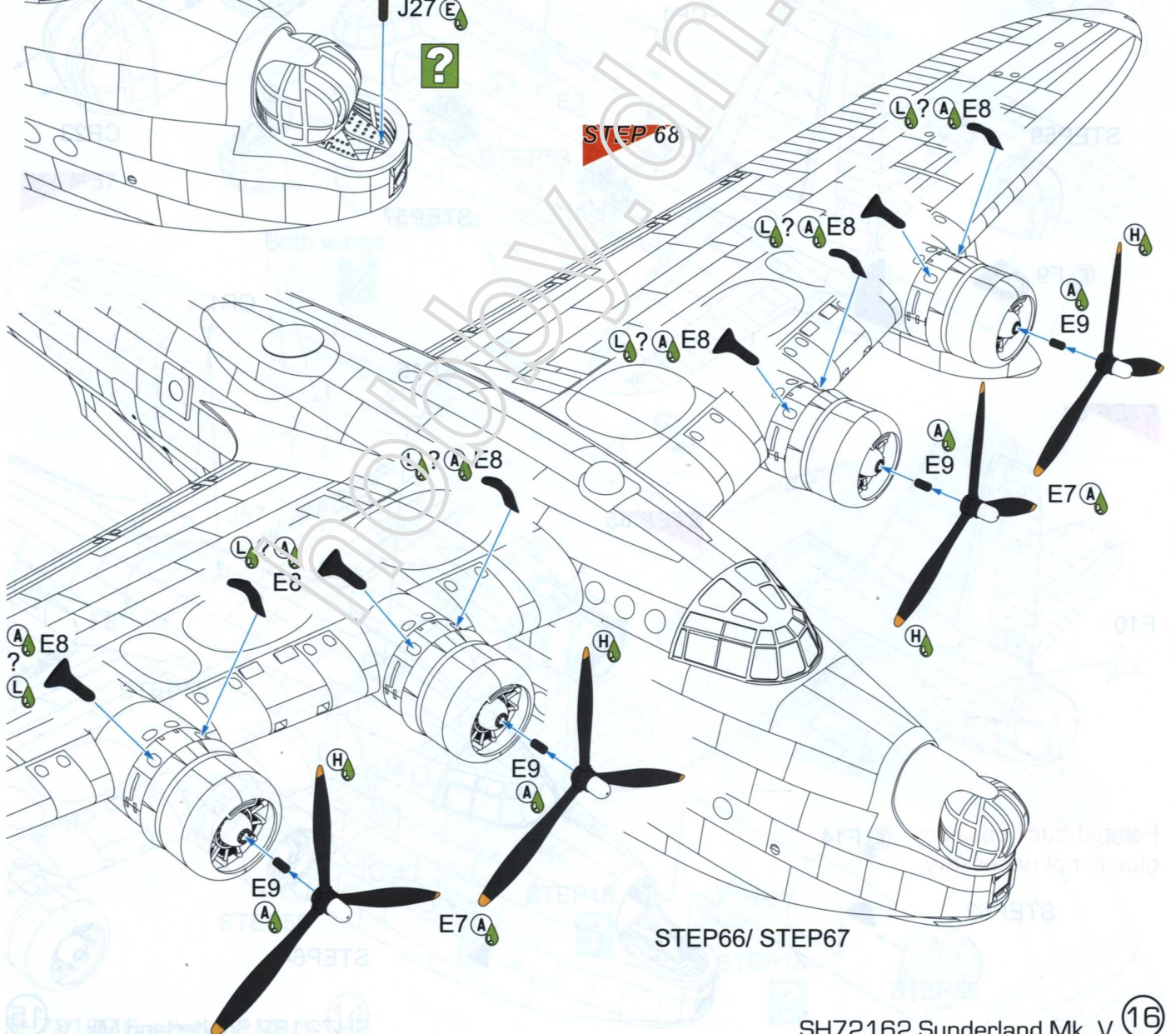
E J62



J27 E

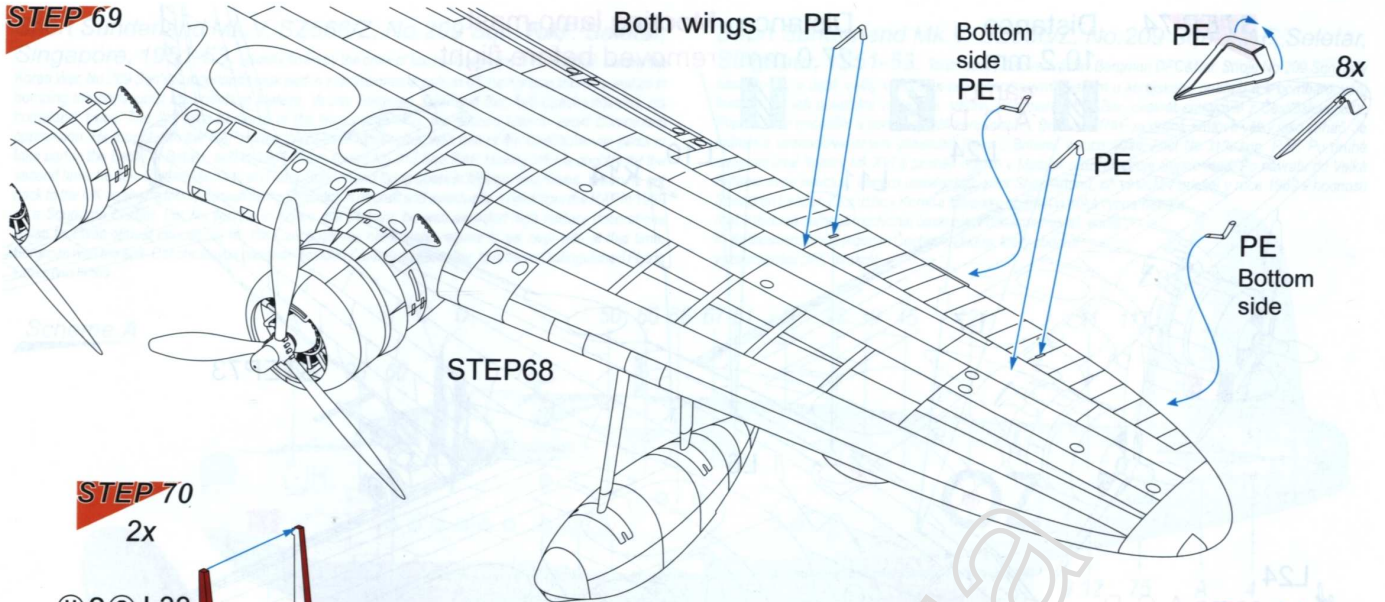


STEP 68



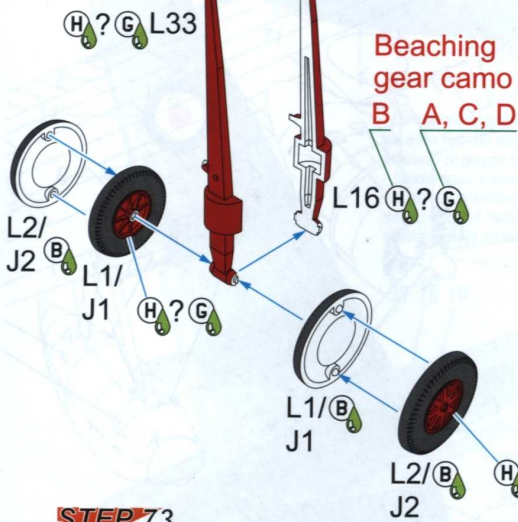
STEP 66/ STEP 67

STEP 69

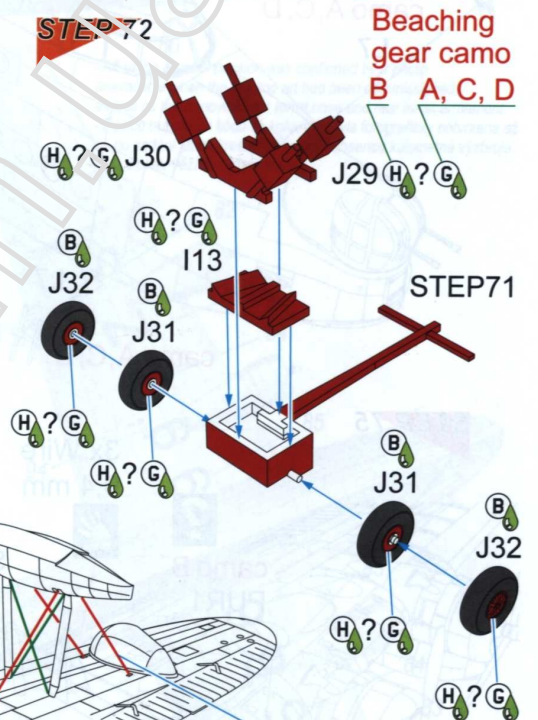


STEP 70

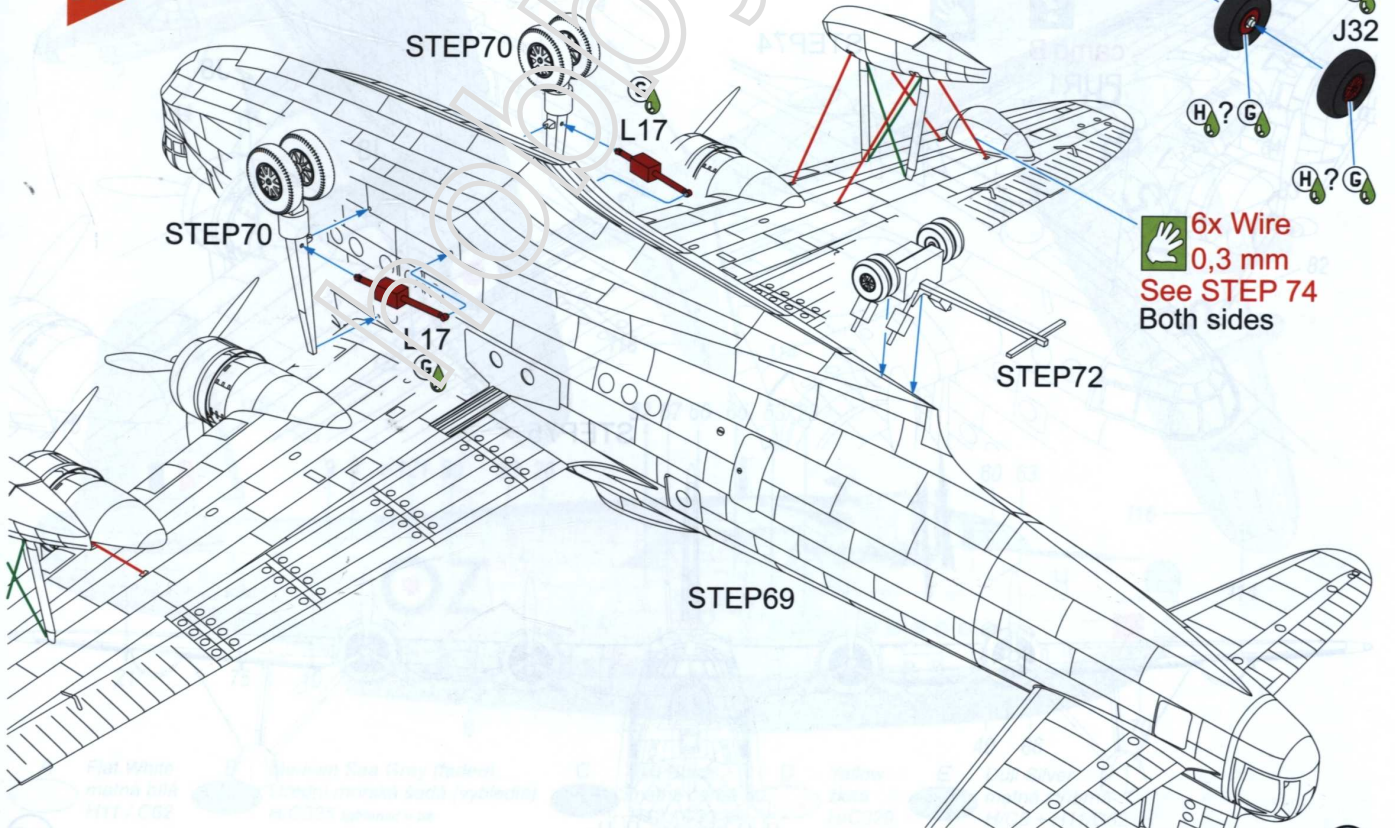
2x



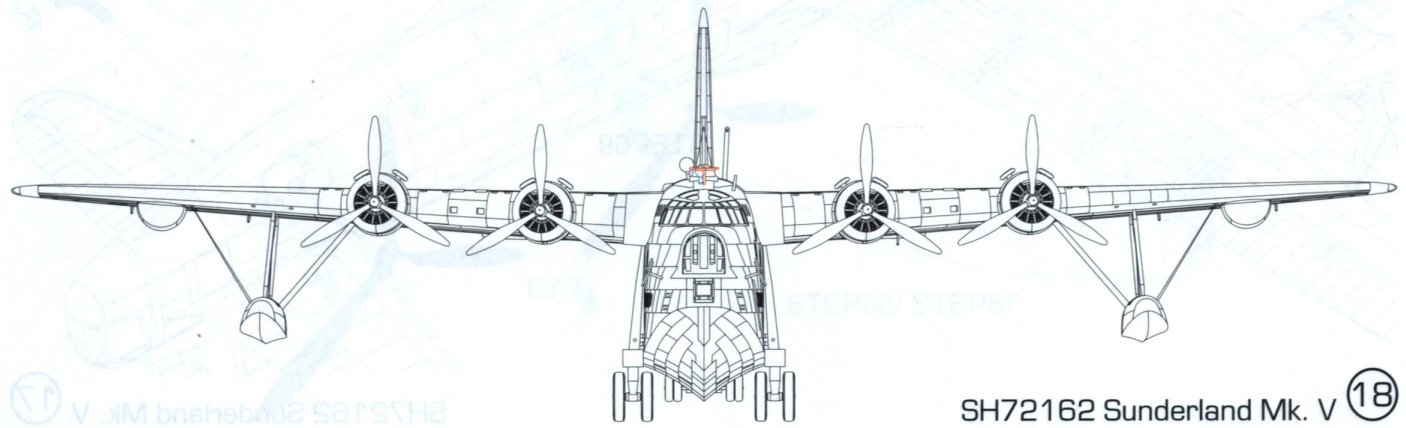
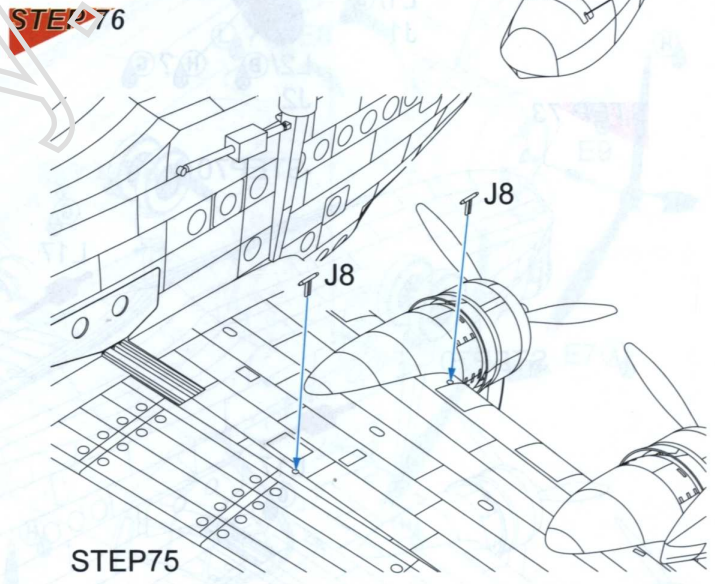
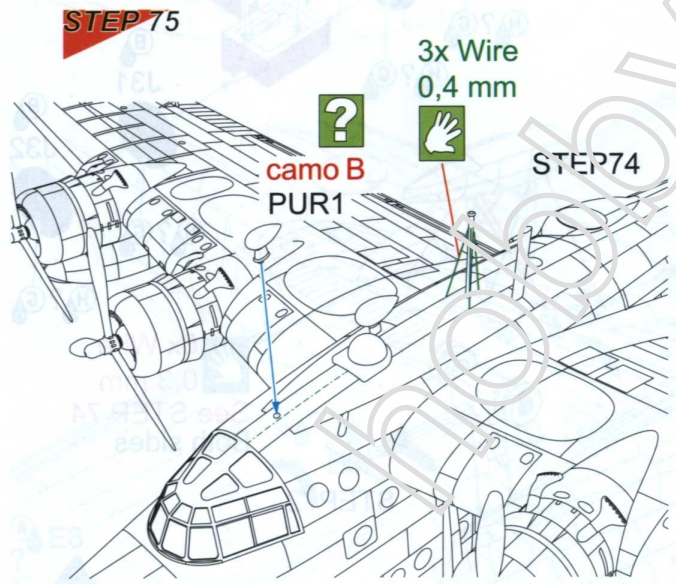
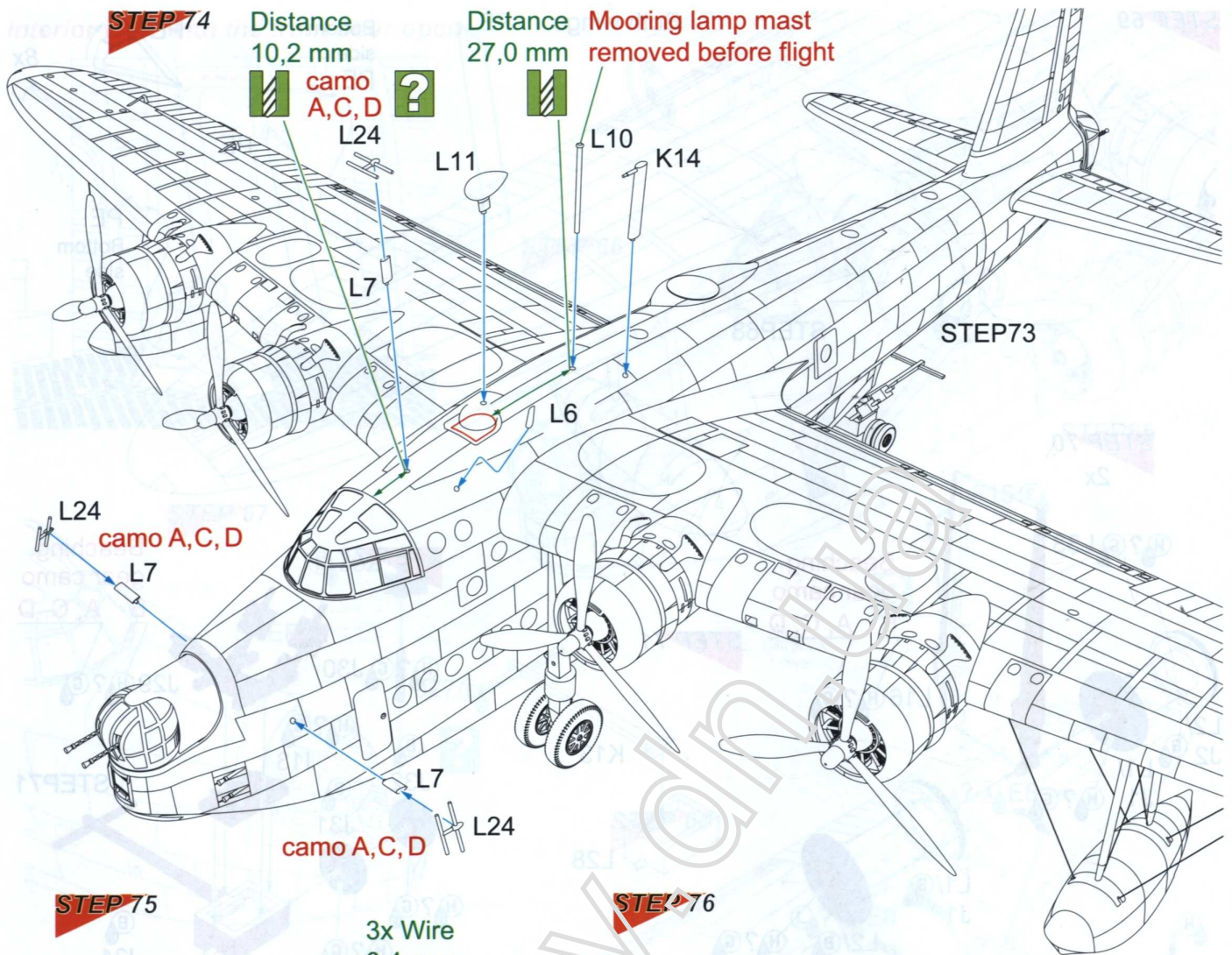
STEP 72



STEP 73



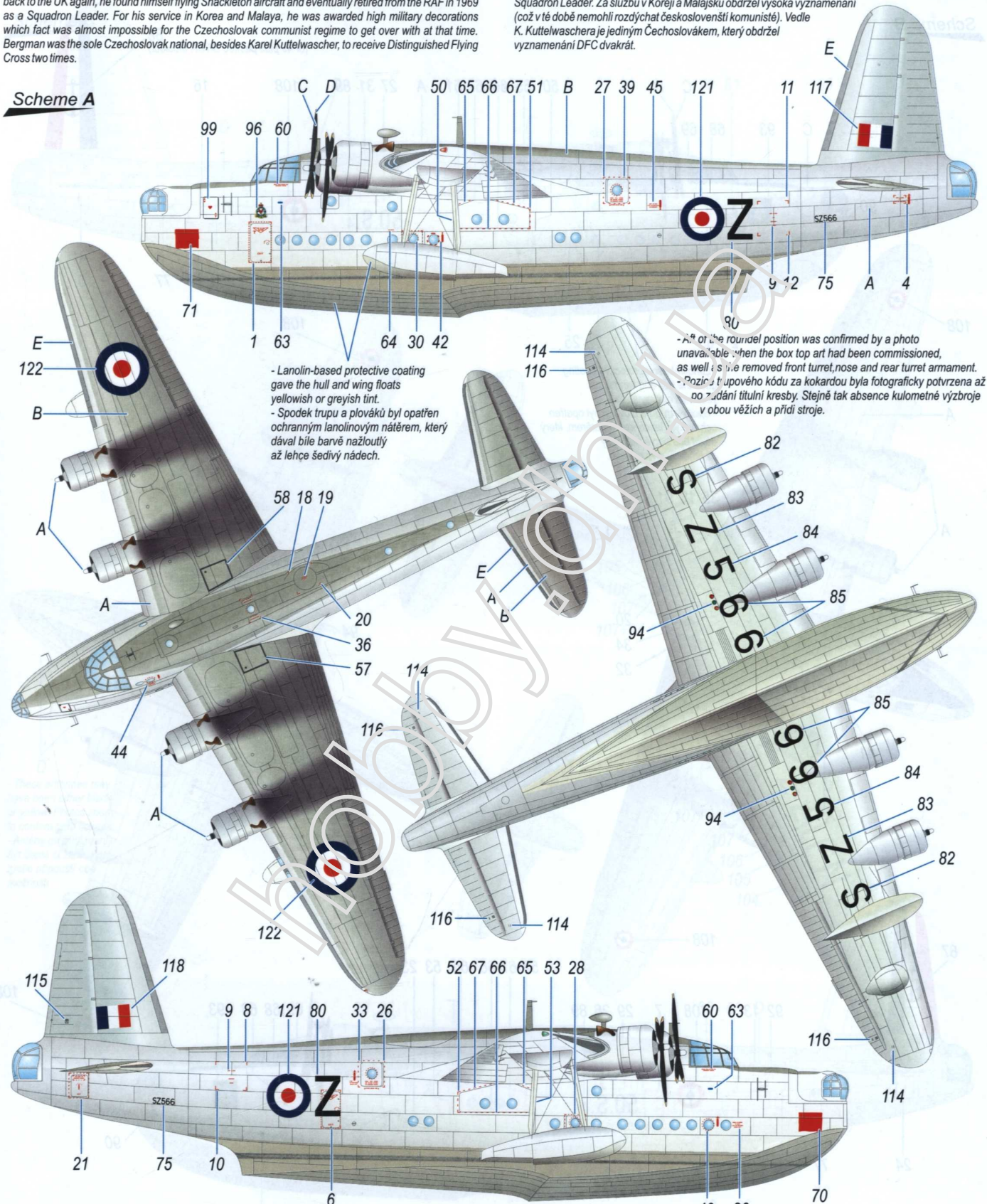
6x Wire
0,3 mm
See STEP 74
Both sides



Short Sunderland Mk.V, SZ566/Z, No.209 Sqn. RAF, Seletar, Singapore, 1951-53. Usually flown by the crew of Vaclav Bergman, DFC and Bar. During the Korea War, No.209 Sqn's Sunderlands took part in anti-submarine patrols off the Korean shore as well as in bombing the communist insurgents in Malaya. Vaclav Bergman, DFC and Bar, fled Czechoslovakia, his homeland, twice. The first time because of the Nazi occupation, the second time to avoid Communist oppression. He fought with the RAF during WW2 as a fighter pilot, was one of the Czechoslovak pilots to take part in the Battle of Britain, and in 1944 commanded No.313 Sqn RAF. Having left his country for the second time, he flew Spitfire Mk.XVIs and later Sunderland flying boats in Malaya and Korea. When he got back to the UK again, he found himself flying Shackleton aircraft and eventually retired from the RAF in 1969 as a Squadron Leader. For his service in Korea and Malaya, he was awarded high military decorations which fact was almost impossible for the Czechoslovak communist regime to get over with at that time. Bergman was the sole Czechoslovak national, besides Karel Kuttelwaschera, to receive Distinguished Flying Cross two times.

Short Sunderland Mk.V, SZ566/Z, No.209 Sqn. RAF, Seletar, Singapur, 1951-53. Tento stroj pilotoval Václav Bergman DFC&Bar. Stroje No.209 Sqn. byly nasazovány v době války v Koreji k protiponorkovým hlídkám u korejského pobřeží a k bombardování komunistických povstalců v Malajii. Václav Bergman, DFC&Bar, dvakrát emigroval z Československa. Poprvé kvůli nacistům a podruhé kvůli komunistům. Bojoval v RAF za druhé světové války jako stíhač. Je jedním z československých účastníků Bitvy o Británii, v roce 1944 velel No.313. sqn. RAF. Po druhé emigraci létal Spitfiry Mk.XVI a později bojoval v Malajii a Koreji stroje Sunderland. Po návratu do Velké Británie svou leteckou kariéru uzavřel jako pilot Shackletonů, do výslužby odešel v roce 1969 v hodnosti Squadron Leader. Za služby v Koreji a Malajsku obdržel vysoká vyznamenání (což v té době nemohli rozdávat českoslovenští komunisté). Vedle K. Kuttelwaschera je jedním Čechoslovákem, který obdržel vyznamenání DFC dvakrát.

Scheme A



- Lanolin-based protective coating gave the hull and wing floats yellowish or greyish tint.
 - Spodek trupu a plováků byl opatřen ochranným lanolinovým nátěrem, který dával bílé barvě nažloutlý až lehce šedivý nádech.

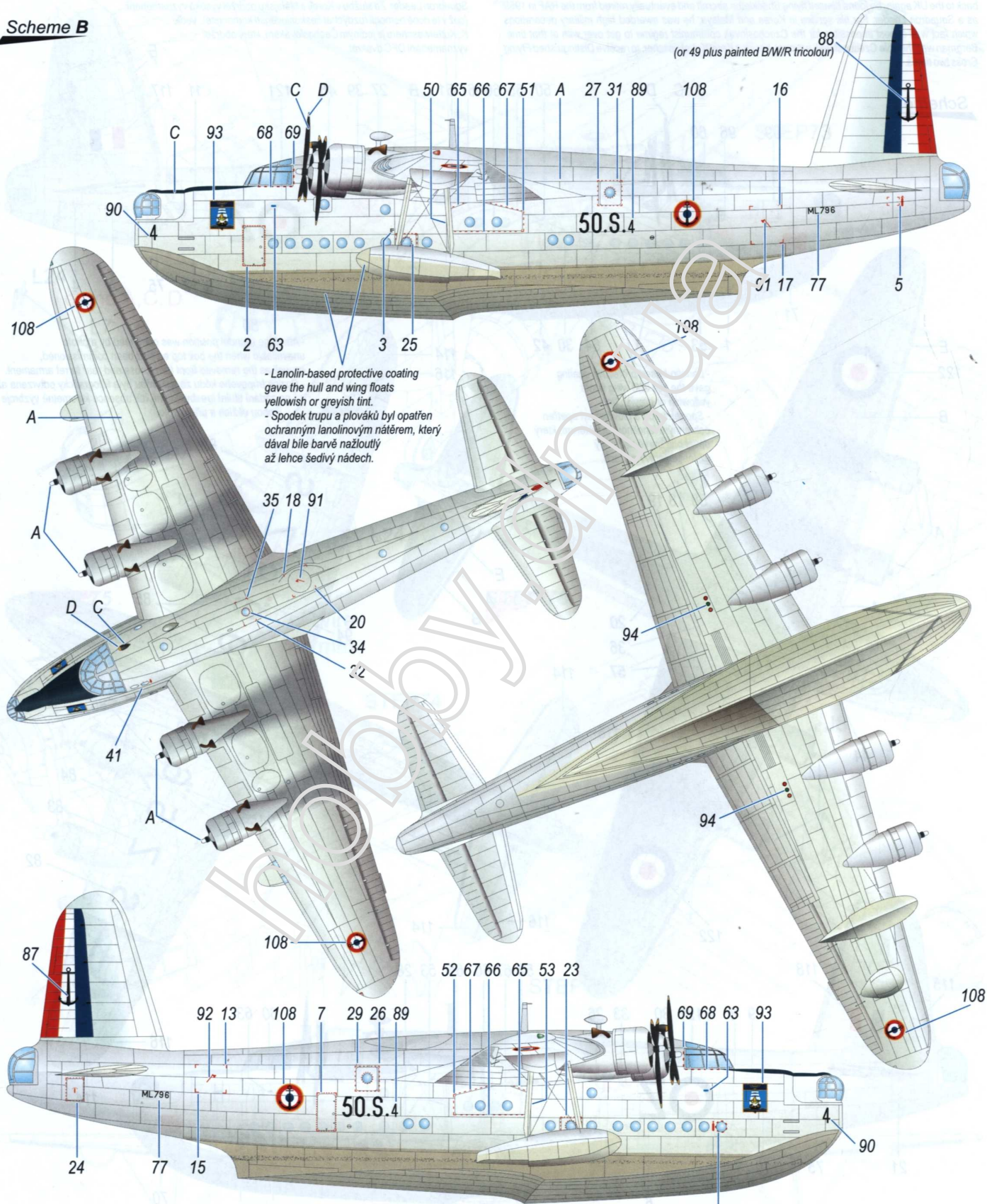
- A* of the roundel position was confirmed by a photo unavailable when the box top art had been commissioned, as well as the removed front turret, nose and rear turret armament.
 - Pozice * v kruhu byla potvrzena až po zadání titulu kresby. Stejně tak absence kulometné výzbroje v obou věžích a přídí stroje.

- A Flat White
matná bílá
H11 / C62
- B Medium Sea Grey (faded)
střední mořská šedá (vybledlá)
H/C335 lightened a bit
- C Flat Black
matná černá
H12 / C33
- D Yellow
žlutá
H/C329
- E Dull Silver
matná stříbrná
H/C8 + H11/C62

Short Sunderland Mk.V, S.50.4, Escadrille 50.S.4, École d'Initiation au Pilotage (EIP), Base d'aéronautique navale de Lanvéoc-Poulmic, 1951.

Short Sunderland Mk.V, S.50.4, Escadrille 50.S.4, École d'Initiation au Pilotage (EIP), základna francouzského námořnictva Lanvéoc-Poulmic, 1951.

Scheme B



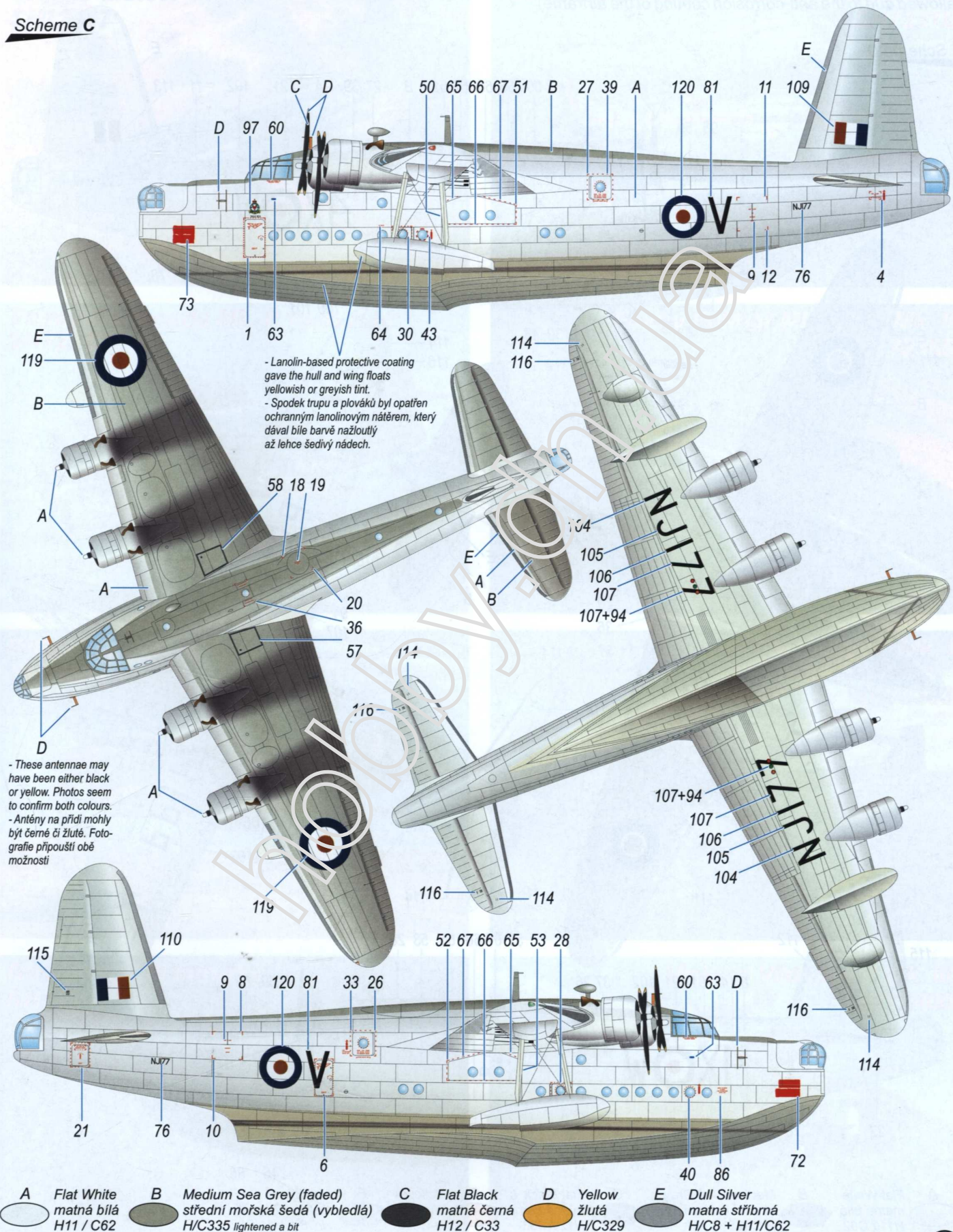
- Lanolin-based protective coating gave the hull and wing floats yellowish or greyish tint.
 - Spodek trupu a plováků byl opatřen ochranným lanolinovým nátěrem, který dával bílé barvě nažloutlý až lehce šedivý nádech.

- A** Flat White
matná bílá
H11 / C62
- C** Flat Black
matná černá
H12 / C33
- D** Yellow
žlutá
H/C329

Short Sunderland Mk.V, NJ177/V, nicknamed Sulu Sea, No.209 Sqn. RAF, flown by the crew of Capt. Richard Lockyer, Seletar, Singapore, 1953. The crew's Wireless Operator/Gunner Sgt Brian Matthews is the author of a stunning series of photographs some of which we were allowed to use while making this kit.

Short Sunderland Mk.V, NJ177/V, pojmenovaný Sulu Sea, No.209 Sqn. RAF, osádka Capt. Richarda Lockyera, Seletar, Singapur, 1953. Jako radiový operátor/střelec v této osádce létal Sergeant Brian Matthews, autor úžasných fotografií. Některé byly použity při přípravě tohoto modelu.

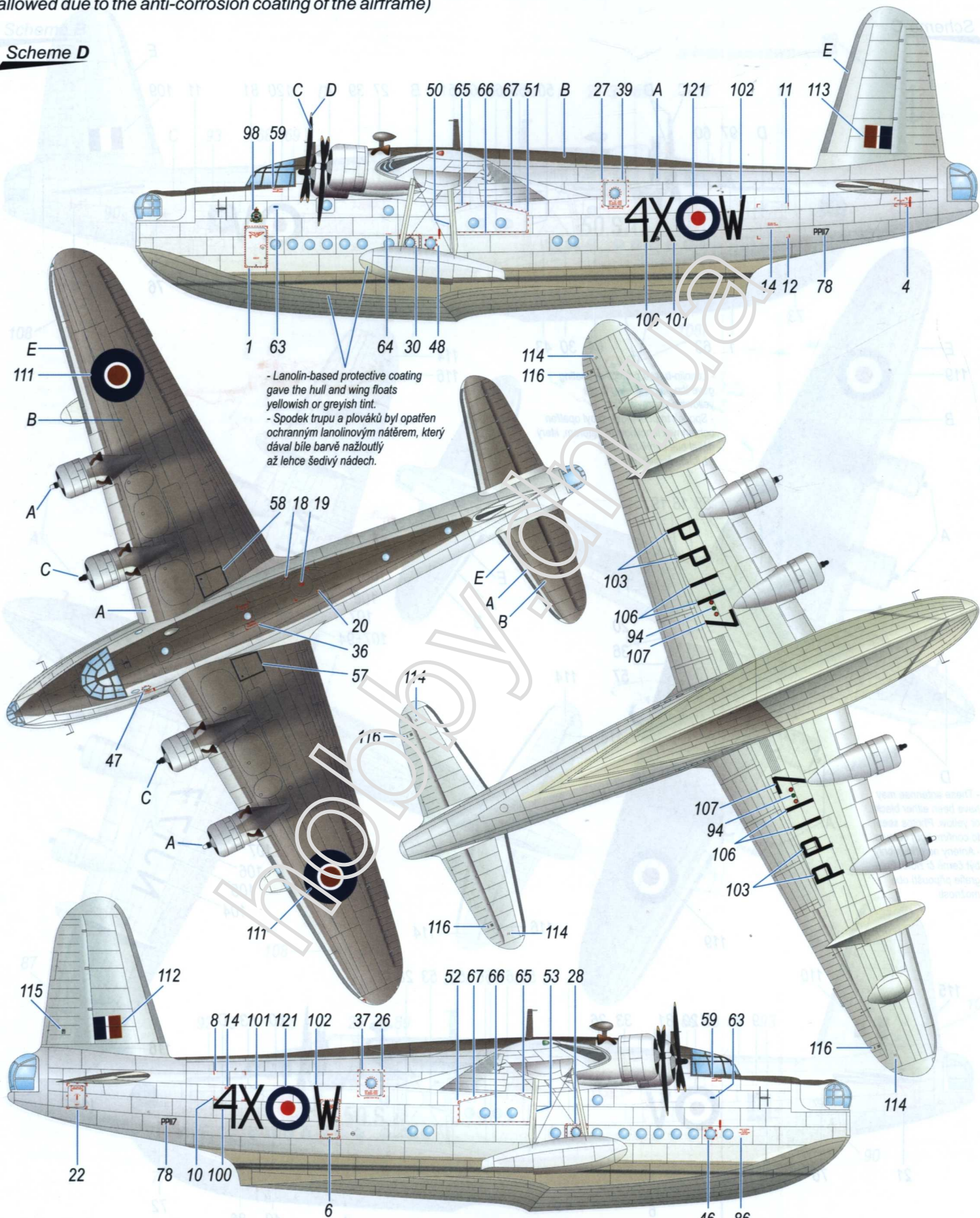
Scheme C



Short Sunderland GR Mk.V, PP117/4X-W, No.230 Sqn. RAF, temporarily detached to Finkenwerde base, Hamburg, British Zone of Germany, July-December 1948. PP117, along with other 230Sqn's Sunderlands, took part in the so-called Berlin Airlift, ie. a shuttle service from Finkenwerde to Havel See in Berlin, ferrying supplies of coal, food and salt (the latter allowed due to the anti-corrosion coating of the airframe)

Short Sunderland GR Mk.V, PP117/4X-W, No.230 Sqn. RAF, detašmán umístěný na základně Finkenwerder, Hamburk, Západní zóna Německa. Stroj PP117 se zapojil společně s jinými stroji této squadrony do Berlínského vzdušného mostu. Sunderlany dodávaly do Berlína zejména uhlí a vzhledem k antikorozní úpravě draků i sůl.

Scheme D



- Lanolin-based protective coating gave the hull and wing floats yellowish or greyish tint.
 - Spodek trupu a plováků byl opatřen ochranným lanolinovým nátěrem, který dával bílé barvě nažloutlý až lehce šedivý nádech.

- A** Flat White
matná bílá
H11 / C62
- B** Medium Sea Grey
střední mořská šedá
H/C335
- C** Flat Black
matná černá
H12 / C33
- D** Yellow
žlutá
H/C329
- E** Dull Silver
matná stříbrná
H/C8 + H11/C62