

Nr kat. 134833

reconnaissance bomber PZL-23B KARAS

Limited edition



PZL-23B Karaś B reconnaissance bomber

The PZL.23 Karaś was developed by Stanislaw Prauss in co-operation with Franciszek Misztal at Państwowe Zakłady Lotnicze in Warsaw to an order from the Polish Air Force. The prototype PZL.23 was first flown in August 1934 by Capt. Boleslaw Orliński. 40 Karaś As (also known as the Karaś I) were built in 1936, and 210 Karaś Bs (aka Karaś II) during 1937-1938, these differing from the Karaś As by having a different engine, no slats on the inboard wing section, and elevator with horn balance. Karaś Bs entered service in 1936 with line flights of the air regiments: 1st in Warsaw, 2nd in Cracow, 3rd in Poznań, 4th in Toruń, 5th in Lida, and 6th in Lwów. In September 1939 50 Karaś aircraft were used in the Bomber Brigade, and 44 in reconnaissance flights assigned to individual armies. These flew 130 sorties, dropping 52 tonnes of bombs. Some 12 Karaś Bs were evacuated to Rumania, where they were used in bomber units during WWII.

Technical description

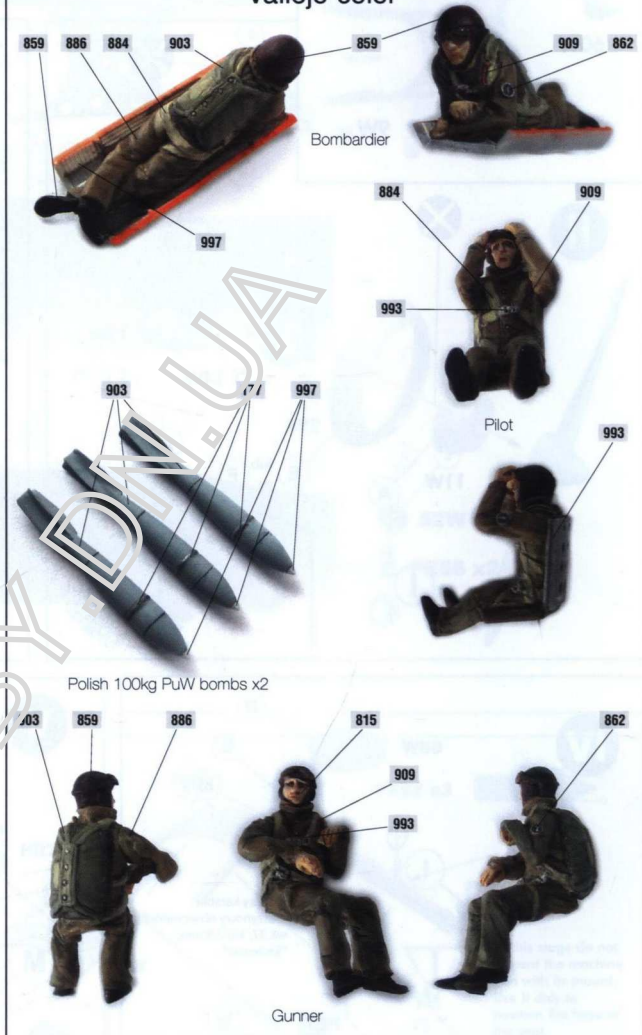
Three-seat low wing monoplane, metal design covered with corrugated duralumin sheets, with enclosed cockpit and fixed undercarriage. Pilot's seat at the front of the cockpit, bombardier/radio-operator's in the middle, and gunner's at the back. The 'cradle' under the fuselage housed the bombardier's position at the front and the lower gunner position at the back. Crew member entered the 'cradle' only to perform his duty. Power plant: 530 kW (720 hp) PZL Pegaz 8A (licence-built Bristol Pegasus) radial piston engine driving two-bladed wooden propeller. Fuel tankage 740 l. Fuel consumption 155 l/h. Armament: one fixed 7.92 mm PWU wz.33 and two moving 7.92 mm Vickers F machine guns, and 700 kg bombs.

Technical specification

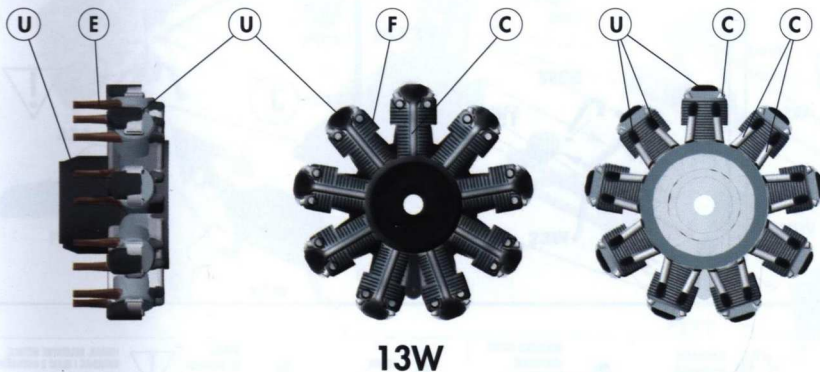
Wing span	13.95 m
Length	9.68 m
Height	3.30 m
Wing area	26.8 m ²
Empty weight	1,980 kg
Useful load	913 (max. 1,546) kg
All-up weight	2,893 (max. 3,525) kg
Max. speed	319 km/h
Cruising speed	270 km/h
Min. speed	110 km/h
Rate of climb	6.7 m/s
Ceiling	7,300 m
Range	1,260 km

Research by Andrzej Glass

RESIN FIGURES PARTS PAINTING Vallejo color

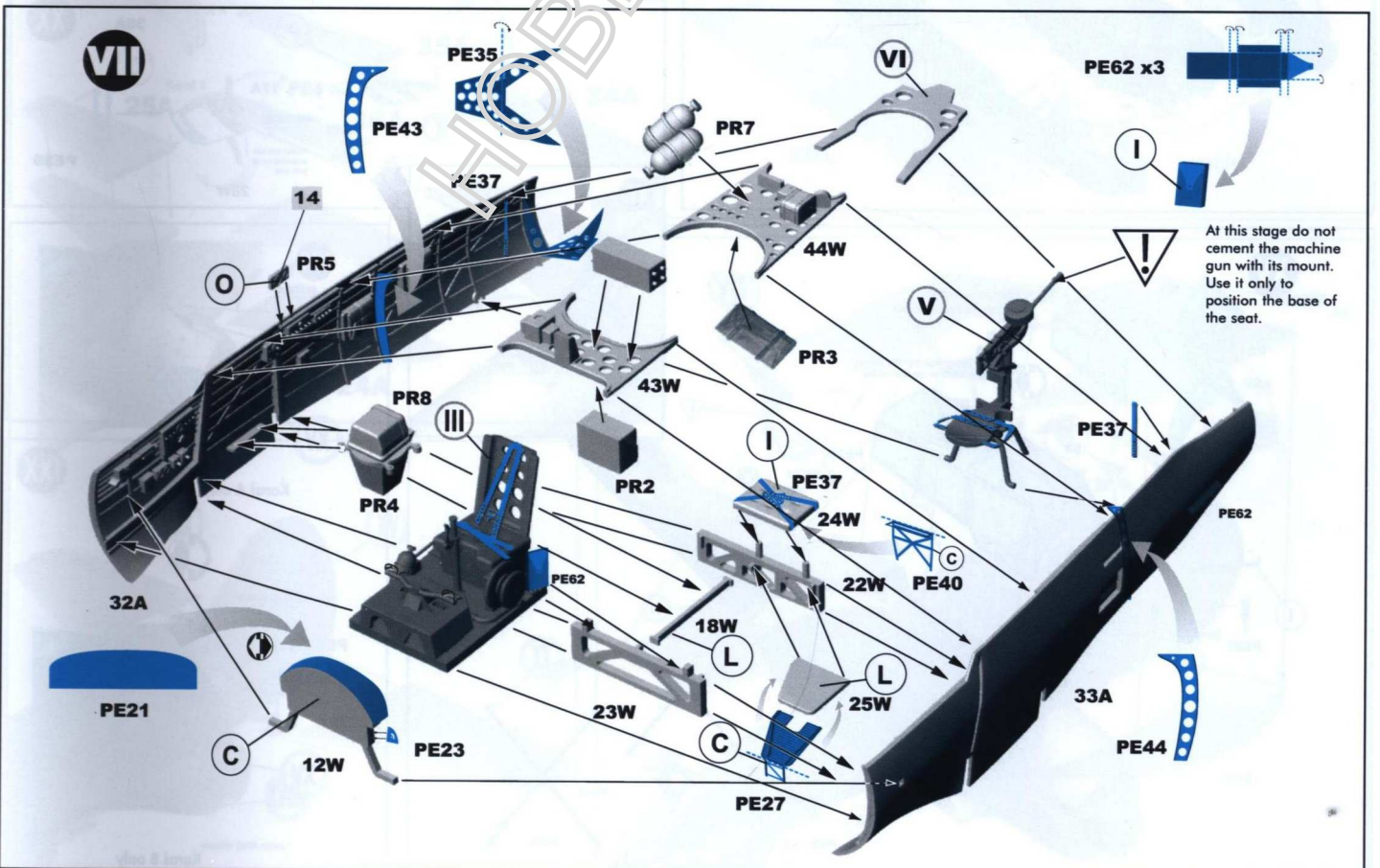
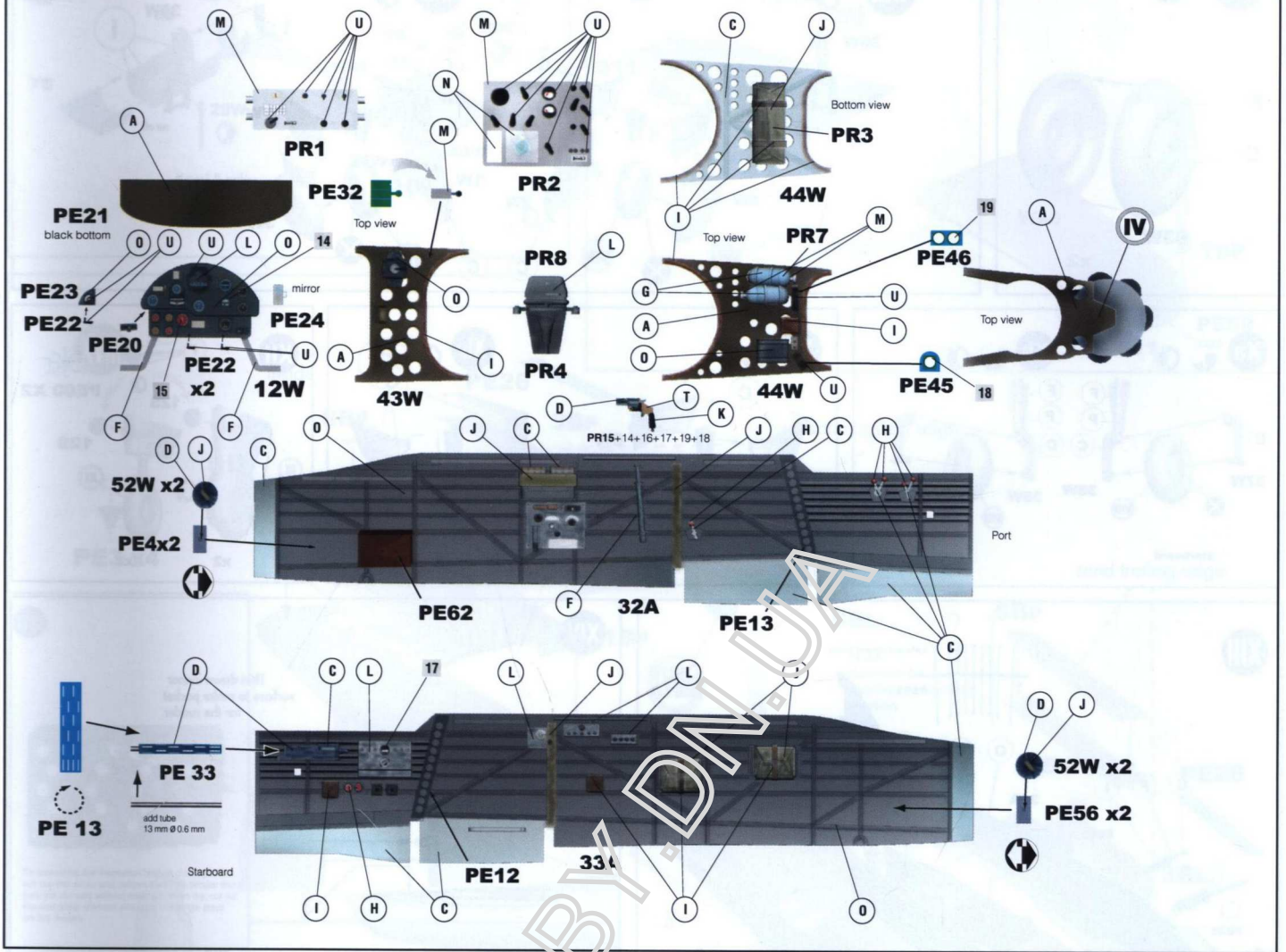


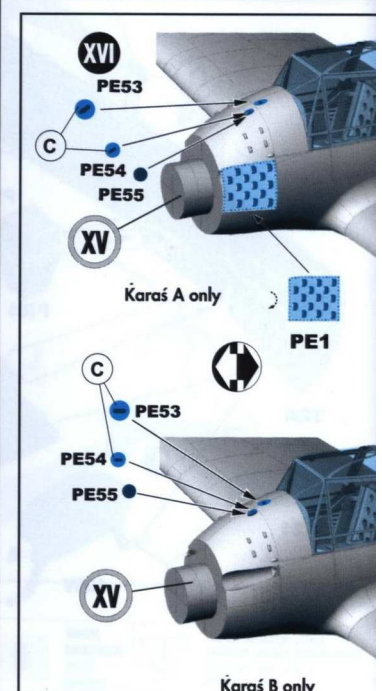
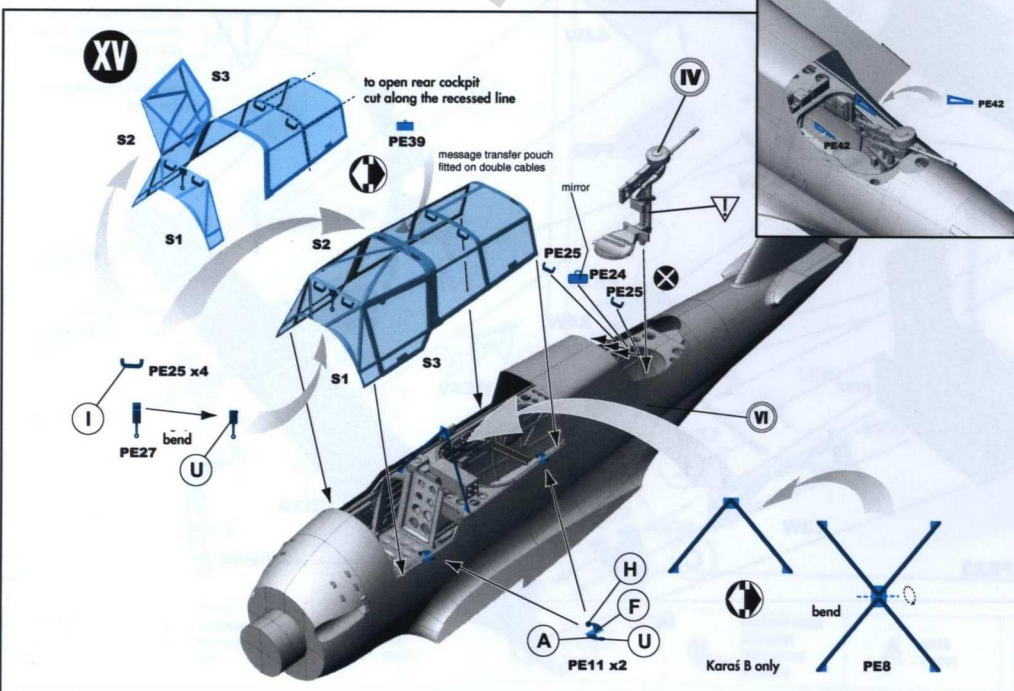
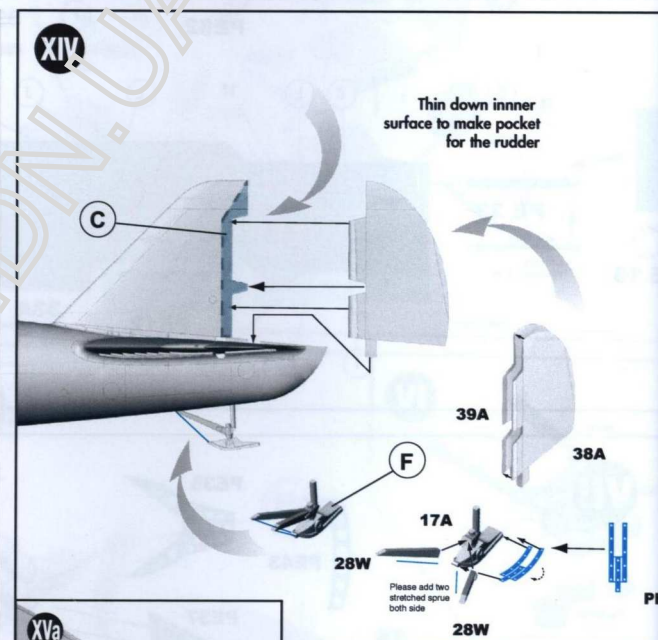
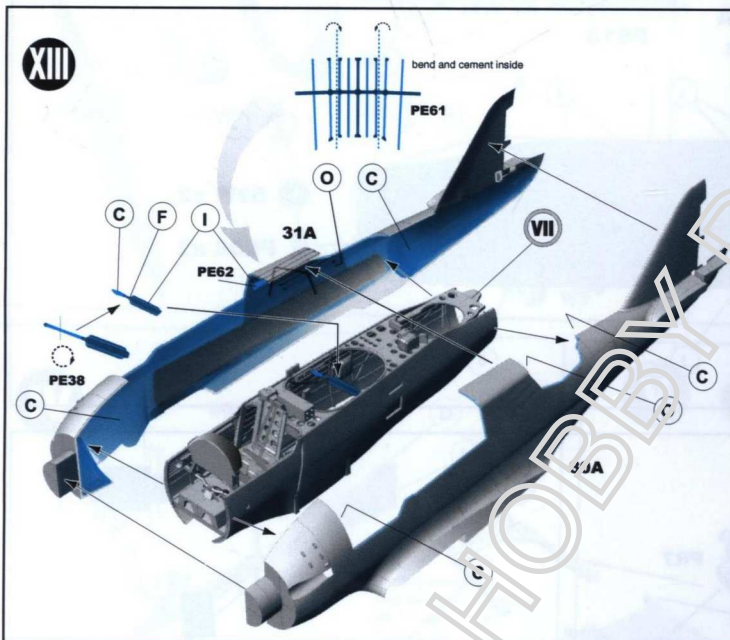
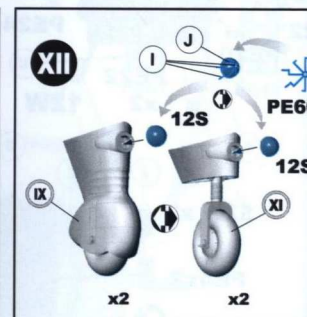
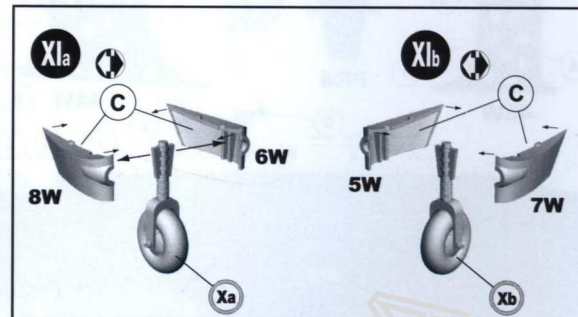
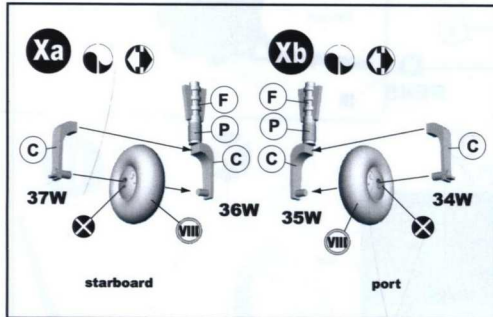
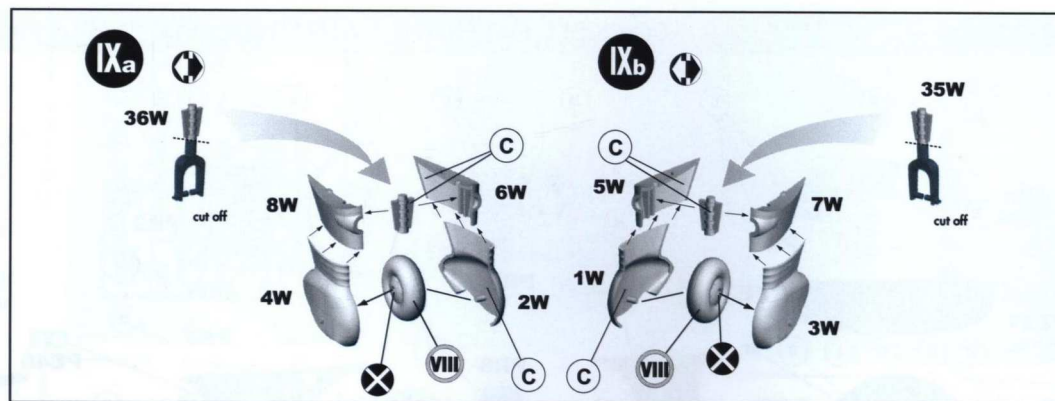
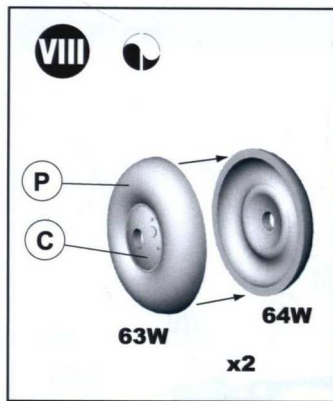
ENGINE PAINTING

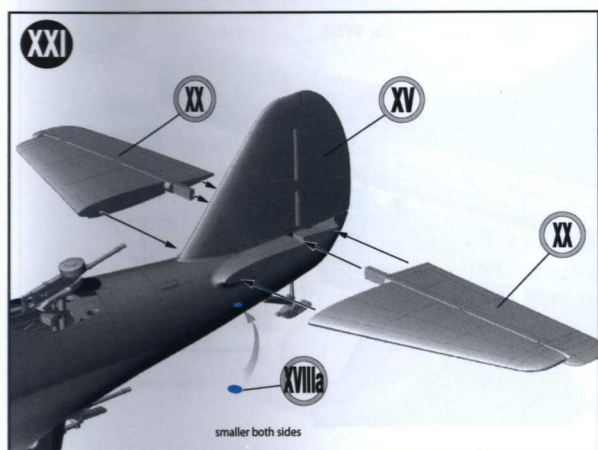
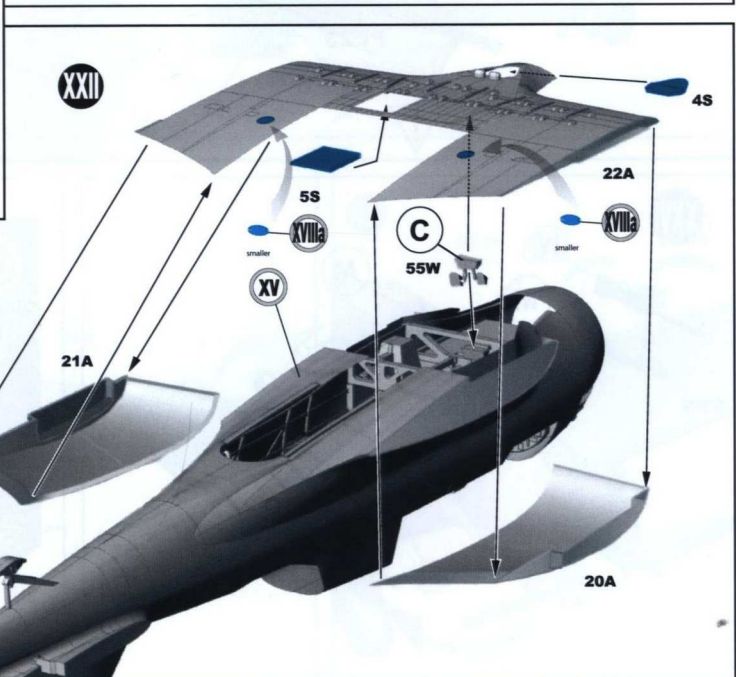
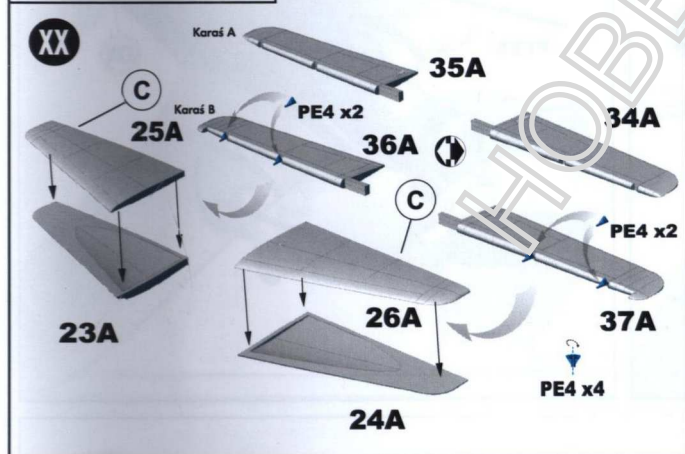
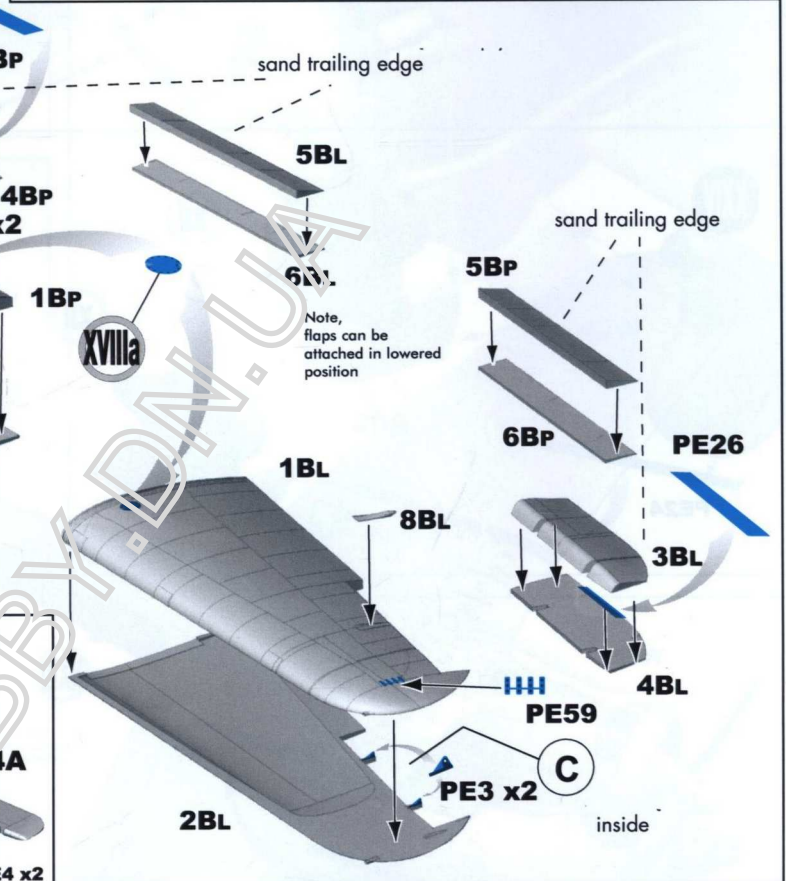
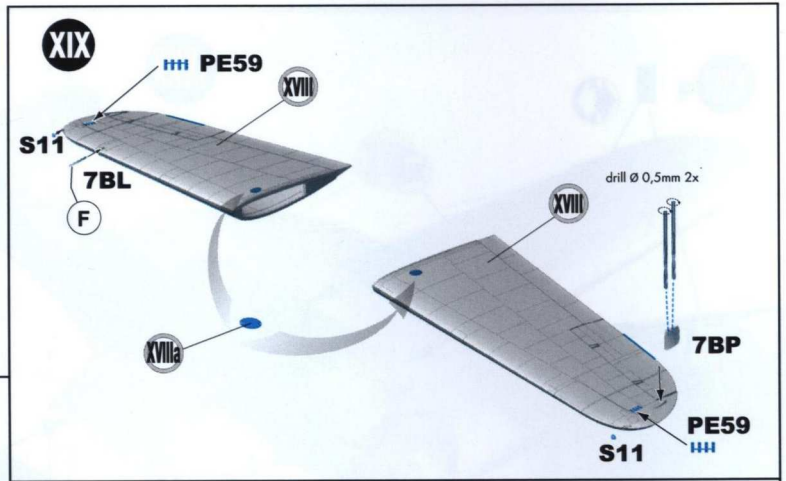
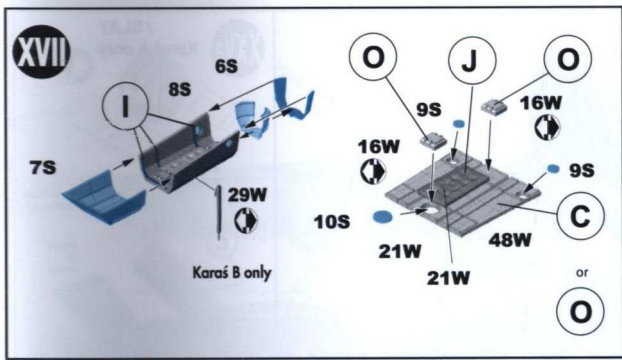


NOTE!

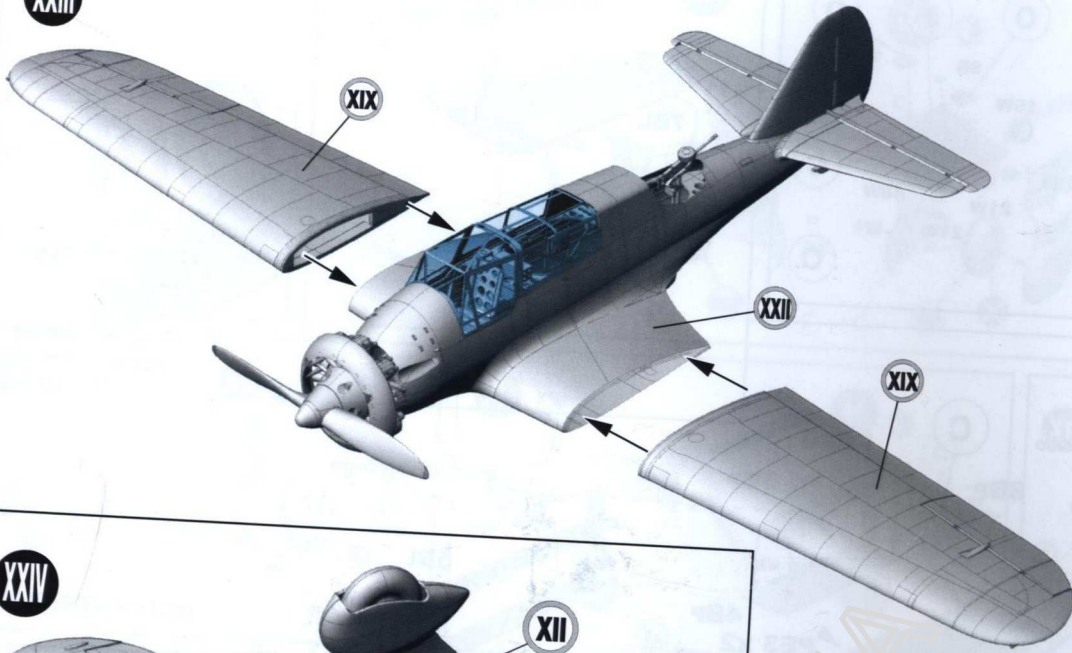
Please, consult the assembly and painting instruction prior to application of decals. Cut off selected decal element, then wet the rear side of the decal with a brush immersed in water. Then wait (ca. 20 secs), until the decal element becomes soft and can be moved around the base sheet. Subsequently act like with application of any other decals. We do not recommend to immerse the decals directly in water. On uneven surfaces, we suggest to use 'Set and Sol' liquids.







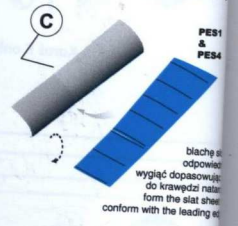
XXIII



XXVa / SLAT Karas A only



place all ribs well without cutting

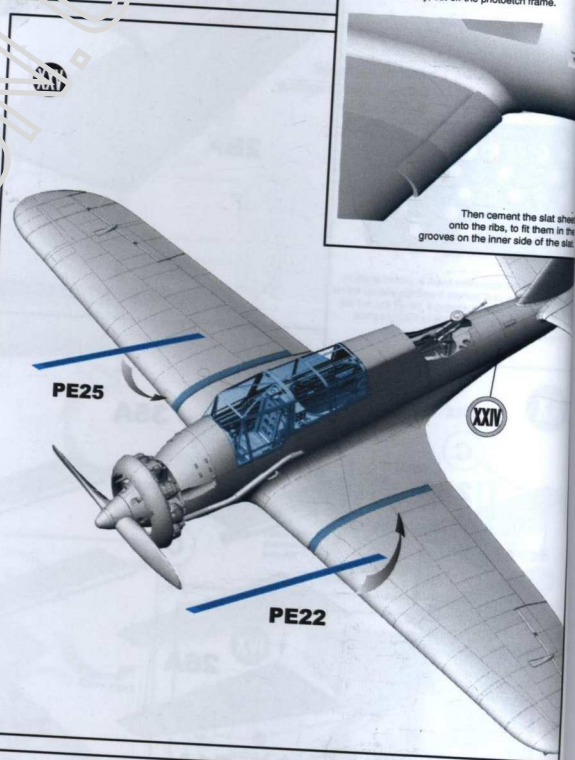
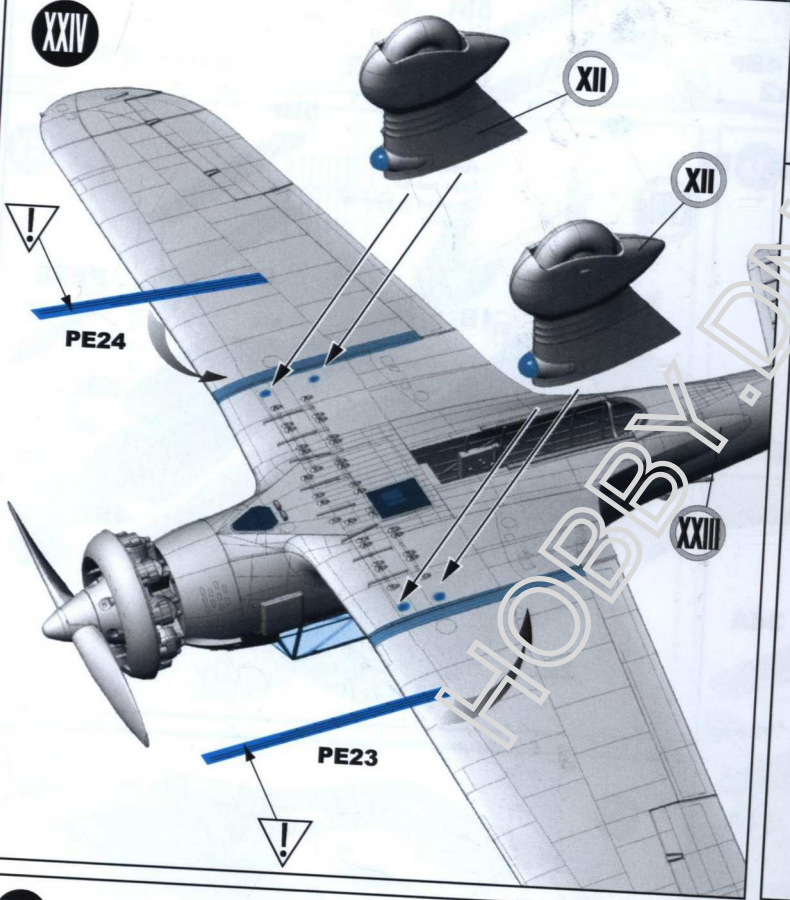


blachy si odpowiednio wygiąć dopasowując do krawędzi natarcia form the slat sheet conform with the leading edge

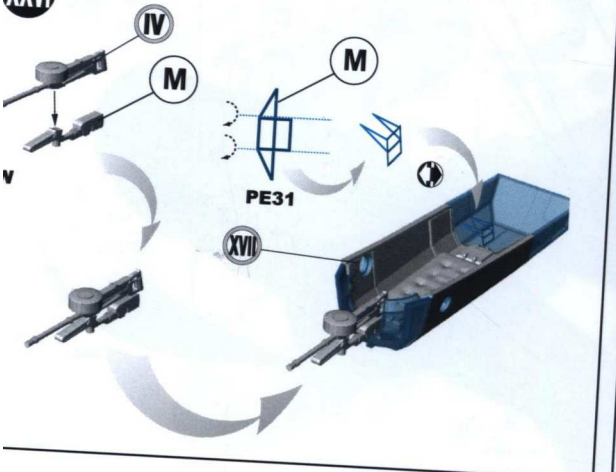
Then cement the ribs onto the leading edge, matching them with the grooves on the inner side of the slat. When dry, cut off the photoetch frame.

Then cement the slat sheet onto the ribs, to fit them in the grooves on the inner side of the slat.

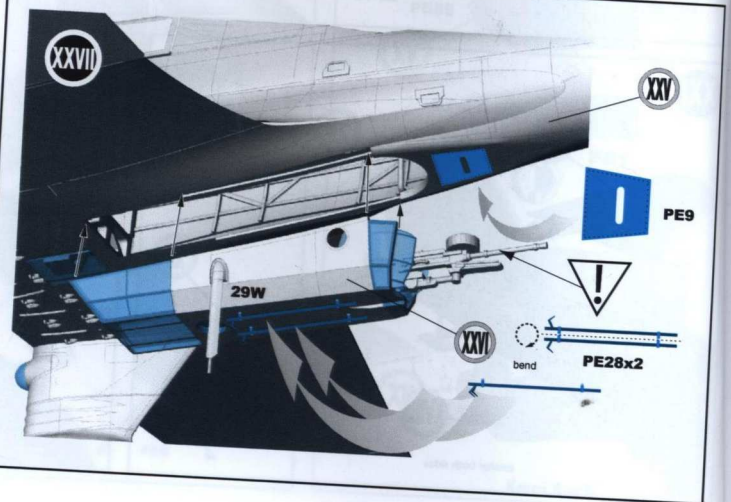
XXIV

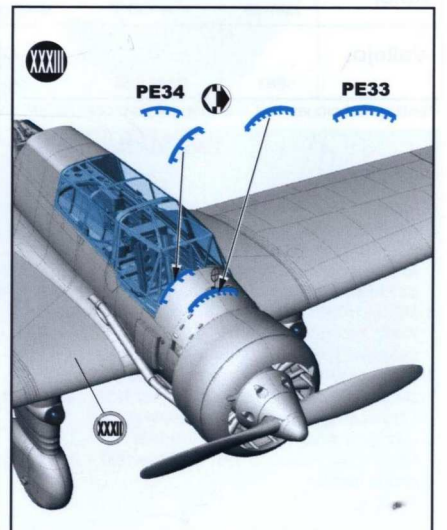
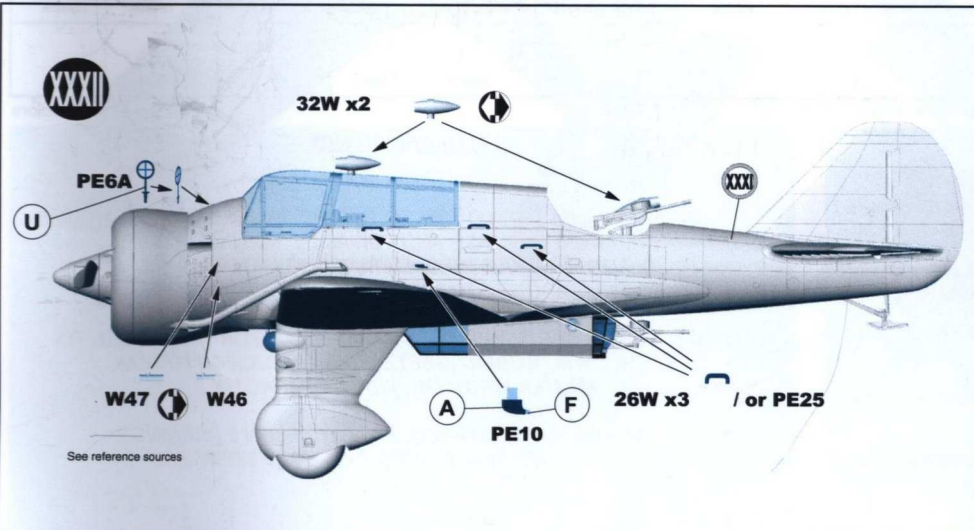
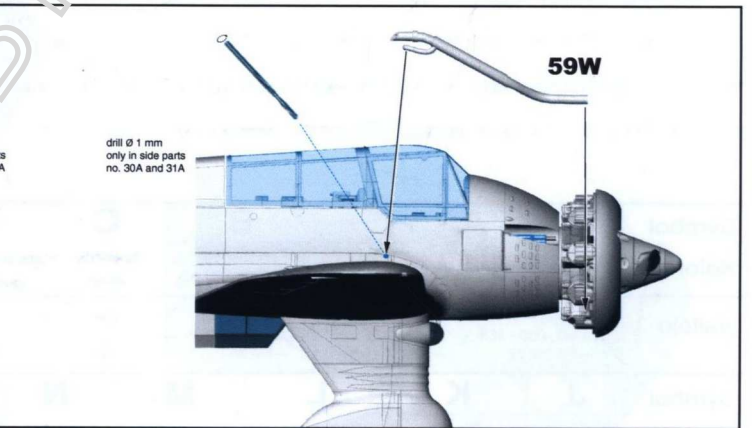
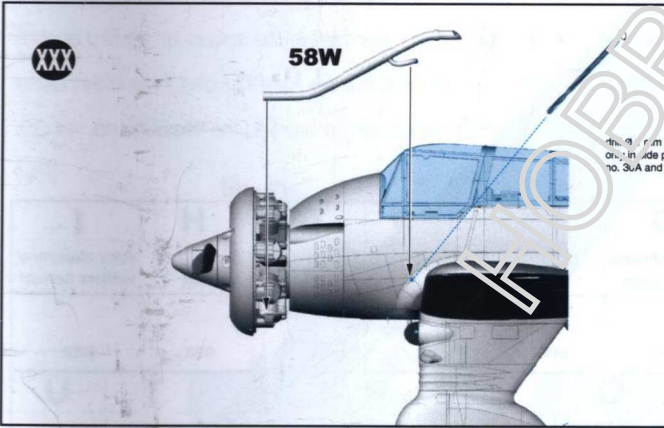
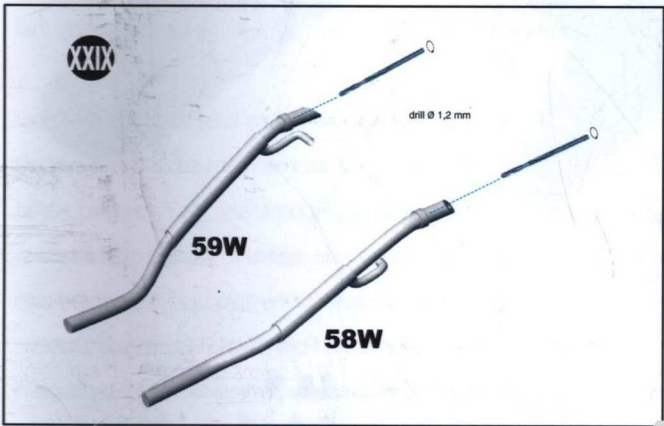
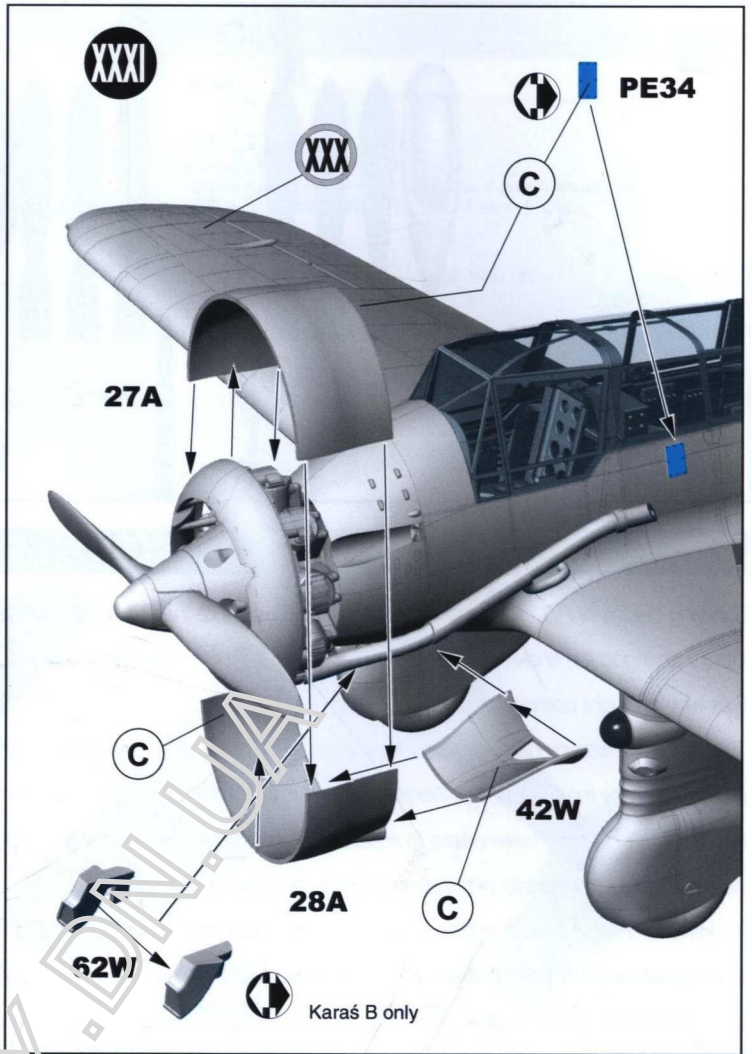
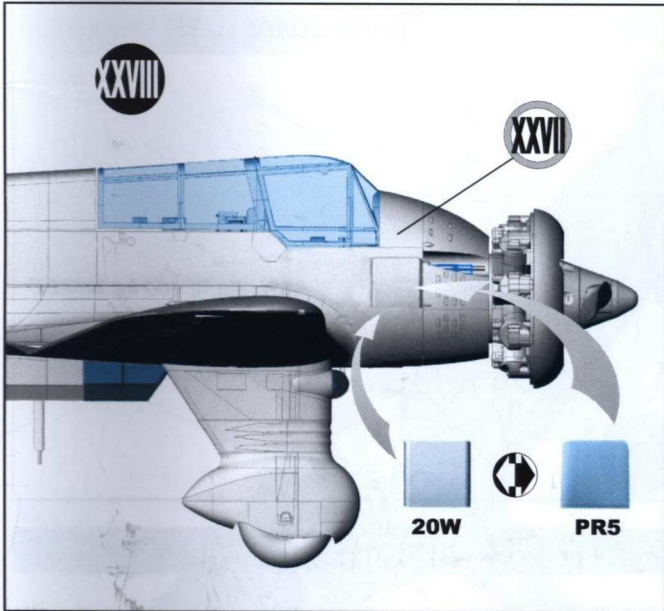


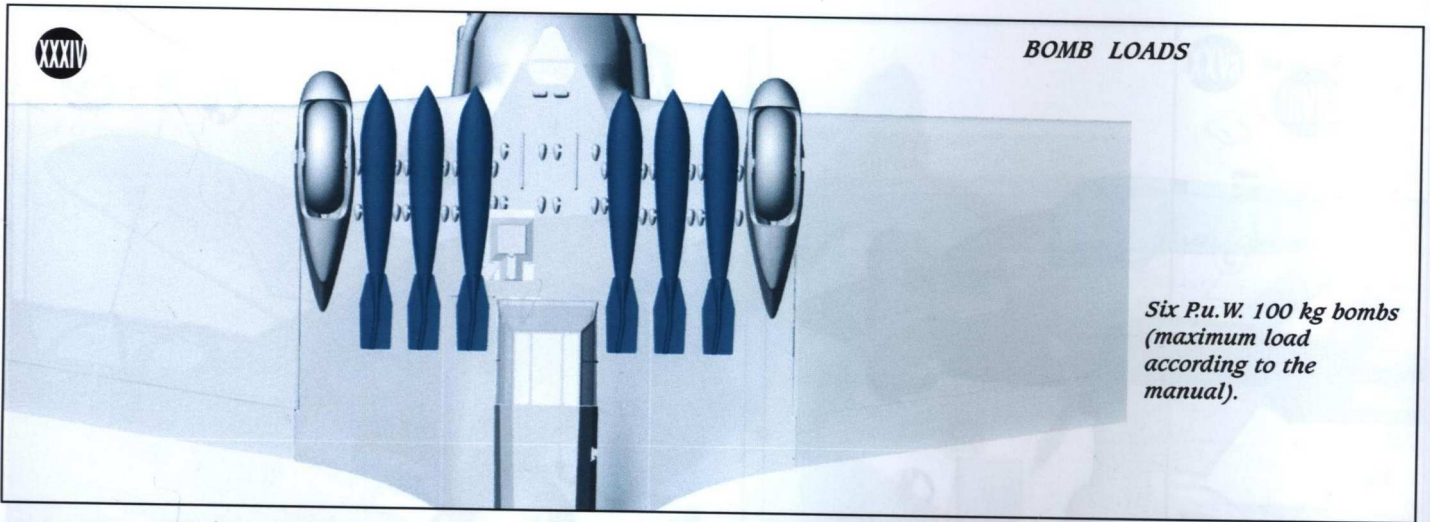
XXVI



XXVII







Six P.u.W. 100 kg bombs (maximum load according to the manual).

Surviving pieces of PZL P.23 seem to confirm the theory that the PZL factory initially used khaki hue close to ~FS 20122 and ~FS 30108. Later on, the PZL factory changed the khaki hue to more greenish, ~FS 34087. The earlier colour probably faded quickly, thus losing its camouflaging effect, and probably that was why the paint composition was changed.

The new khaki was probably also used on export aircraft as well as new types, such as the PZL P.37 and the PZL P.43. This seems to be confirmed by colour photos taken by the Germans at Warsaw-Okecie in 1939. We managed to locate a piece of PZL P.37B with original paint, and we have used this as a sample to which Vallejo paints were mixed to match. The new khaki was probably used by PZL on late production Karaś Bs. Probably also the overhauled Karaś As/Karaś Is were repainted with the new colour as required. Until now it has not been possible to establish what finish was applied to Karaś cockpit interiors. No information about this is known to survive, no artefacts were found, either. Black and white photos show that the interior of the aeroplane was painted with a dark paint, definitely neither silver nor light blue. Fragments of the P.23 interior, displayed during a temporary exhibition at the Polish Aviation Museum in Cracow, were finished in dark blue grey paint. To sum up: cockpit interiors of prototypes and early production aircraft were probably painted silver; later production batches were probably finished in dark blue grey or khaki green inside. The shelves between crew stations were painted khaki on top. The most probable variant: sides in dark blue grey, floor in black. The entire equipment, such as camera, radio set, bombsight etc. were left in the colours as applied at their respective manufacturers' plants. Stencilling (decals nos. 20, 21, 22, 23) were probably not applied on Karaś As, but we have included them in the decal sheet, as they may have been applied following an overhaul. As an example, the 'NIE DEPTAĆ' ('NO STEP') stencil can be seen on the aeroplane no. 44.30.

(PM)

Symbol	A		B	C	D	E	F	G	H	I	
Kolor	khaki „wczesny” PZL khaki „early” PZL	khaki ciemny „wczesny” PZL dark khaki „early” PZL	jasno szary „wczesny” PZL light bluishgrey PZL	srebrny silver	stal oksydowana gunmetal	rdzawy rust	stalowy steel	jasno niebieski light blue	czerwony red	kolor skórzany leather brown	
Vallejo	2 : 2 : 1 : ~1/10 982+968+950+953 ~FS 20122	1 : 1 982+970 ~FS 30108	1 : 1 : 1 901+844+919 ~FS 35450	Air 062	863	Air 080	864	961	908	982	
Symbol	J	K	L	M	N	O	P	R	S	T	U
Kolor	brezent canvas	drewno wood	ciemno szary dark grey	jasno szary light grey	biały white	szaroniebieski bluishgrey	guma tyre black	spaliny glaze	khaki „późny eksportowy” PZL late khaki „export” PZL	mosiądz brass	czarny black
Vallejo	881	834, 828	862	883	842	Air 005	994	855	3 : 6 : 1 982+968+950 ~FS 34087	801	861

Painting Techniques and Catalogue Vallejo colours see: <http://www.acrylicosvallejo.com>

— Basic colors

SUGGESTED READING:

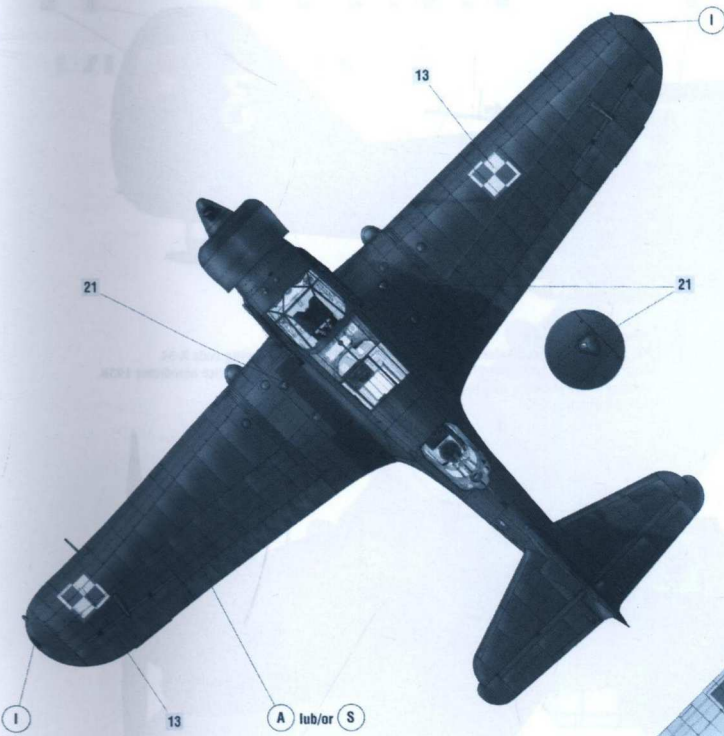
- PZL.23 Karaś
Tomasz J. Kopański, Mushroom Model Publications, 2004 - Historia, fotografie, / Narrative, photos.
- PZL P.23 Karaś, Monografie Lotnicze #23.
Tomasz J. Kopański, Krzysztof Sikora, AJ-Press, 1995 - Historia, szczegółowe zdjęcia płatowca, opis malowania / Narrative, detailed photos, camouflage and markings.
- MODEL HOBBY #21, Stawne Samoloty, PZL.23A Karaś.
Witold Szewczyk, PPHU MIRAGE HOBBY, 2004 - Plany 1/48, plansze barwne, fotografie / 1/48 drawings, colour plates, photos.
- Samolot wywiadowczo-bombowy PZL.-23 (P.23)
Skrzydła Polska, sierpień 1936 / August 1936 - Opis techniczny, przekrój samolotu / Technical specification, cut-away drawing
- Uzbrojenie lotnictwa polskiego 1918-1939
Adam Popiel, Warszawa 1991 / Warsaw 1991 - Zdjęcia, opisy, historia / Detailed photos, narrative.

ACKNOWLEDGEMENTS

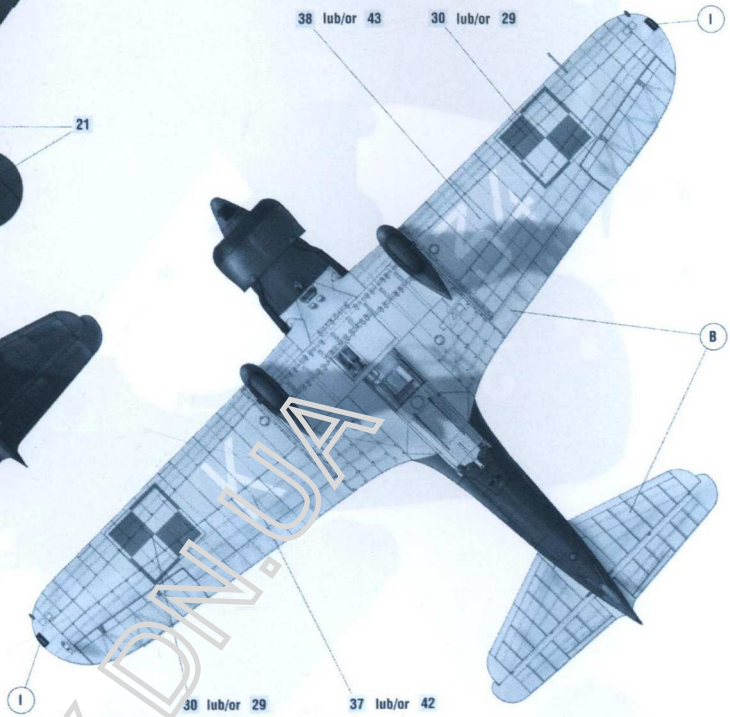
MIRAGE HOBBY WOULD LIKE TO OFFER SINCERE THANKS TO
ANDRZEJ GLASS AND TOMASZ J. KOPAŃSKI
FOR VALUABLE INFORMATION AND MATERIALS
ABOUT PZL P.23 KARAŚ AIRCRAFT.

SPECIAL THANKS FOR ASSISTANCE IN RESEARCH FOR THIS MODEL TO:
JERZY B. CYNK, ROBERT GRETZYNGIER, WOJCIECH ŁUCZAK,
WOJTEK MATUSIAK, WITOLD SZEWCZYK.

THE MODEL WAS PREPARED, BASED ON SCALE DRAWINGS
RESEARCHED AND TRACED BY WITOLD SZEWCZYK

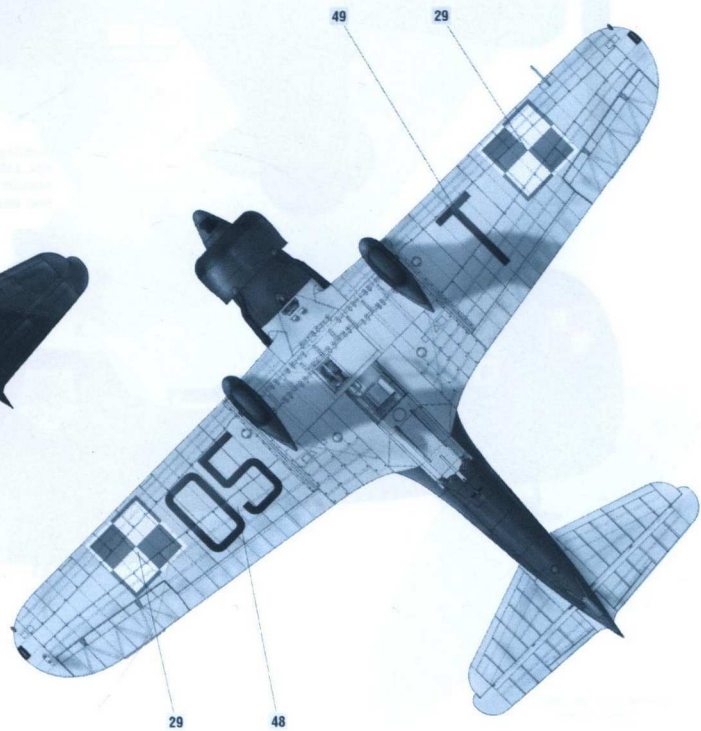


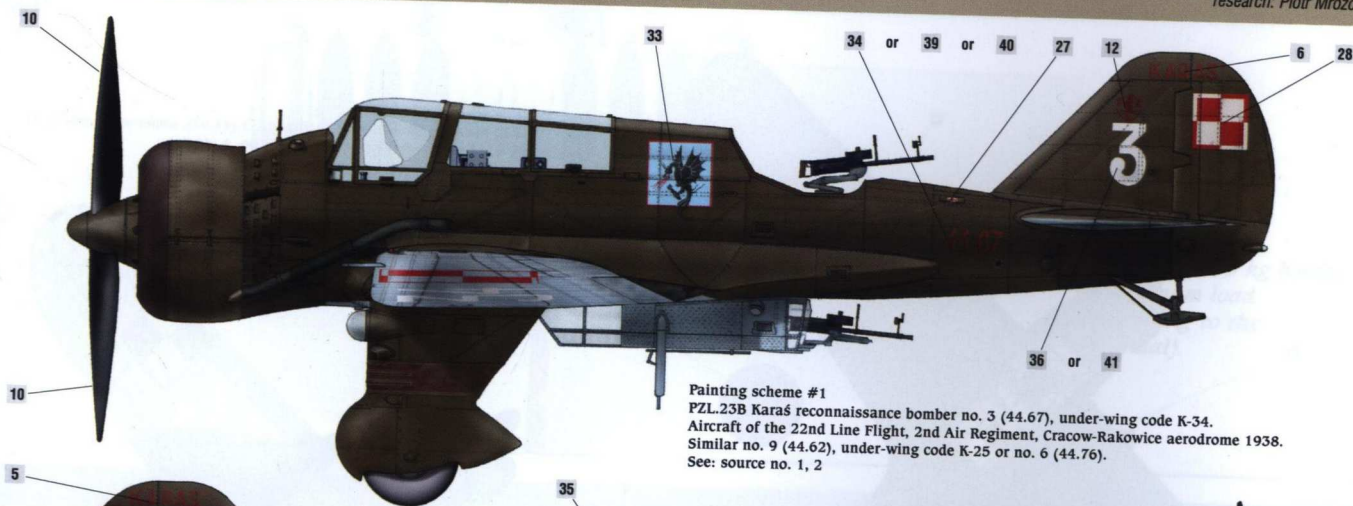
Painting scheme #1
PZL.23B Karaś reconnaissance bomber no. 3 (44.67), under-wing code K-34.
or no. 9 (44.62), under-wing code K-25 or no. 6 (44.76).



**PZL.23B
KARAŚ**

Painting scheme #2
PZL.23B Karaś reconnaissance bomber no. 6 (44.214), under-wing code 05-T.





Painting scheme #1
PZL.23B Karaś reconnaissance bomber no. 3 (44.67), under-wing code K-34.
Aircraft of the 22nd Line Flight, 2nd Air Regiment, Cracow-Rakowice aerodrome 1938.
Similar no. 9 (44.62), under-wing code K-25 or no. 6 (44.76).
See: source no. 1, 2



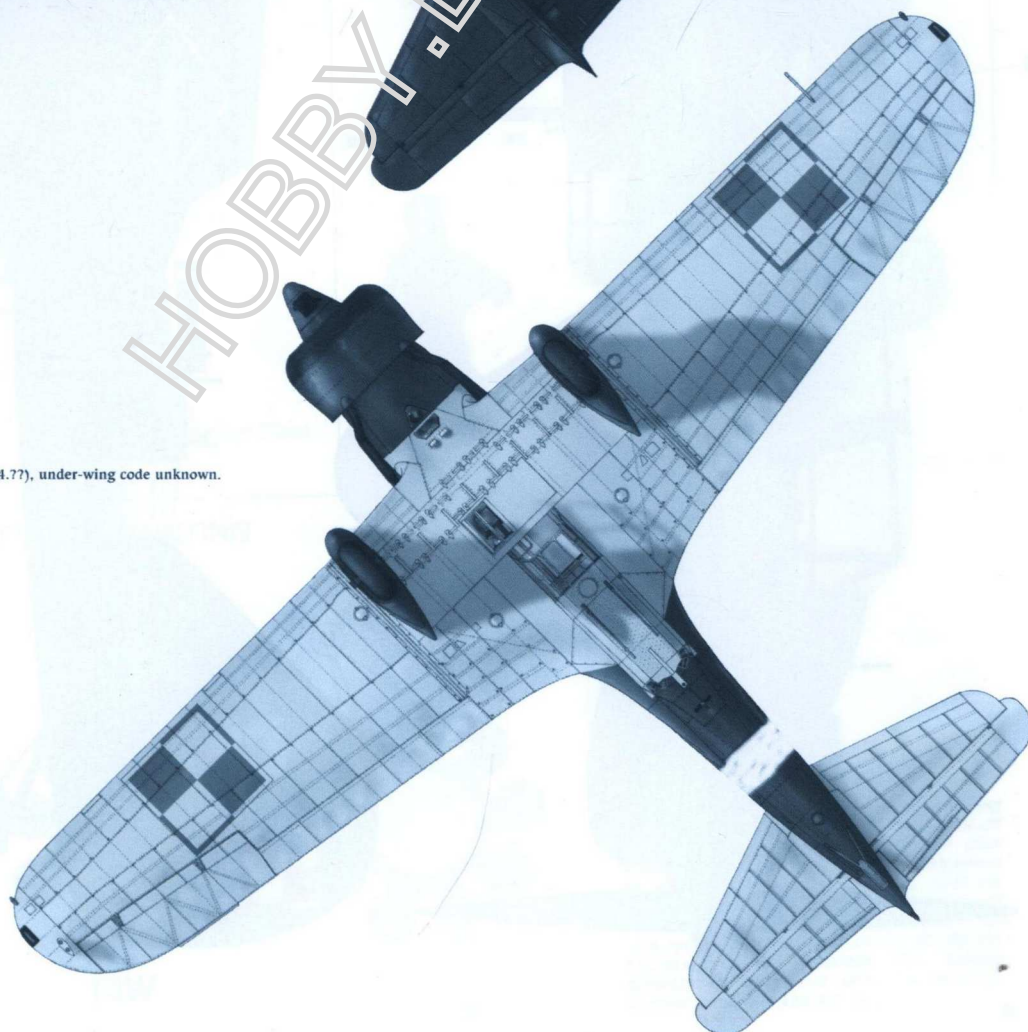
PZL.23B KARAŚ



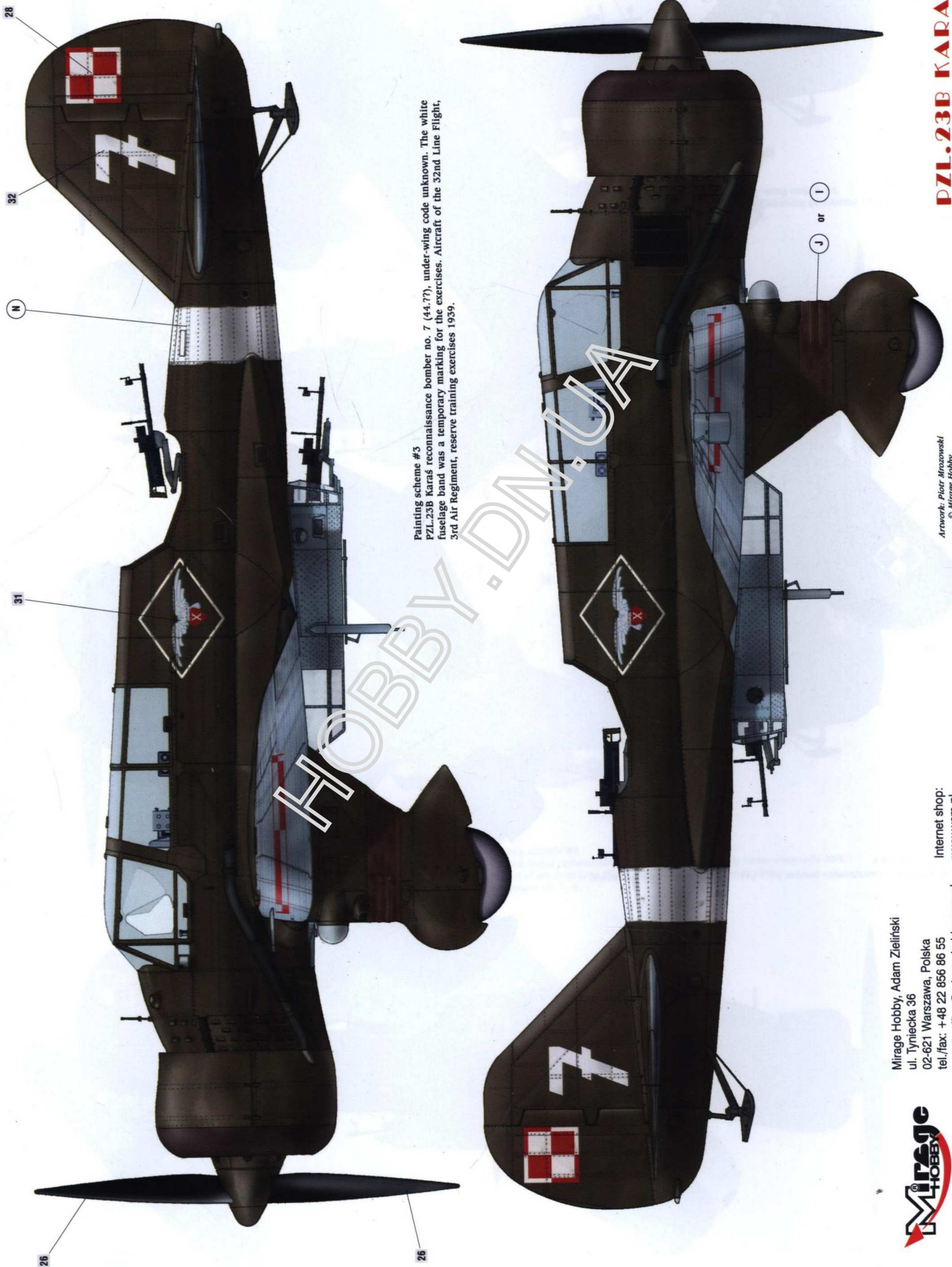
Painting scheme #2
PZL.23B Karaś reconnaissance bomber no. 6 (44.214), under-wing code 05-T.
Aircraft of the 41st Line Flight, 4th Air Regiment, Toruń 1938.
See: source no. 1, 2



PZL.23B KARAS



Painting scheme #3
PZL.23B Karas reconnaissance bomber no. 7 (44.??), under-wing code unknown.



Painting scheme #3
 PZL.23B Karas reconnaissance bomber no. 7 (44.77), under-wing code unknown. The white fuselage band was a temporary marking for the exercises. Aircraft of the 32nd Line Flight, 3rd Air Regiment, reserve training exercises 1939.

PZL.23B KARAS

Artwork: Piotr Mrozowski
 © Mirage Hobby

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