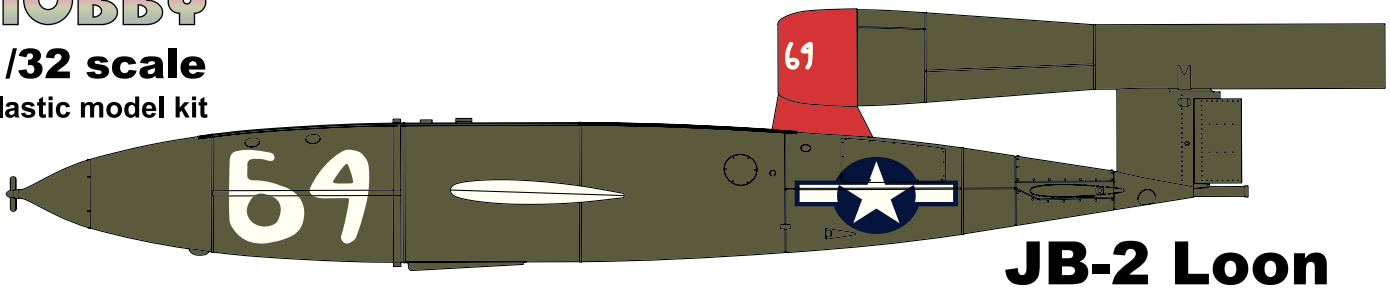
special HOBBY

SH32092

1/32 scale

plastic model kit



JB-2 Loon

instructions

CZ

Malý bezpilotní letoun Fieseler Fi 103 se stal první hitlerovou "odvetnou zbraní" a díky tomu je mnohem známější pod zkratkou V-1. Vývoj byl zahájen na základě objednávky velení Luftwaffe z 5.6.1942 na letounovou střelu s doletem 250 km a nosností 800-1000 kg výbušnin. První prototyp vzlétl již 24.12.1942. Protože šlo o jednorázový prostředek byla konstrukce jednoduchá. Štíhlý doutníkový trup nesl v přídi magnetický kompas a nálož, za ní pak byly řazeny nádrže paliva, stlačeného vzduchu, baterie a řídící systém. Křídlo s trubkovým nosníkem mělo obdélníkový tvar, stejně jako ocasní plochy. Nad trupem byl montován pulzační motor Argus As 109-014, vetknutý do vrcholu svislé ocasní plochy. Hlavním konstrukčním materiálem byla ocel. Střela musela být vypálena z katapultu rychlostí kolem 370 km/h, aby se rozeběhl náporový motor. Nastavená délka letu byla měřena otáčkami vrtulky v přídi. Po uletění určené vzdálenosti se vrtulka zastavila, došlo k přerušení přívodu paliva, kormidla se přestavila do polohy, aby došlo k pádu a střela se zřítila na cíl. Přesnost byla ale nevalná. Střely byly poměrně dlouho chystány k bojovému nasazení, nakonec k němu došlo až po spojeneckém vylodění do Francie. 155. protiletadlový dělostřelecký pluk pod vedením plk. Wachtela zahájil palbu na Londýn. Vzhledem k tomu, že střely měly poměrně omezený dolet a spojenci postupovali Francií , tak byly posleze střelami V-1 odstřelovány města Antverpy, Lutych a Brusel. Spojenci museli nasadit poměrně velké letecké síly k eliminaci střel V-1. Ať už šlo o bombardéry, které útočily na startovací katapulty, tak stíhačky sestřelující střely ve vzduchu. Mimo střelby byla používána i taktika převrácení střely koncem křídla. Velkou výchylku střely nedokázaly gyroskopy srovnat a střela se tak zřítila předčasně.Proti střelám byly masivně nasazeny i jednotky protivzdušné obrany. Po obsazení francouzského území a ztrátě katapultovacích základen byly střely V-1 odpalovány z letadel. Jako nosiče sloužily Heinkely He 111 jednotky KG 53.

Německé střely V1 byly okopírovány a vyráběny v USA pod označením JB-2 Loon. Bylo použito reverzního inženýrství a střely, označené JB-2 Loon byly vyvinuty na základě trosek V1 z Velké Británie a díky špionáži. Letounové střely vyráběla společnost Republic, respektive z kapacitních důvodů zapojila subdodavatele. Motory, označené PJ31, vyráběla společnost Ford. JB-2 Loon měly být nasazeny proti Japonsku, ale použití atomové pumy ukončilo válku. I přesto byly přijaty do výzbroje, bylo jich vyrobeno 1391 ks. Poměrně dlouho se expedimentovalo s odpaly střel, nakonec bylo vyvinuto odpalování ze země z krátkých mobilních ramp. Střely byly vypouštěny i z podvěsů pod letadly. US NAVY vyvinulo způsoby odpalu z hladinových lodí a později i z ponorek. Své střely označovalo LTV-N-2. USAAF i US Navy a používány do poloviny padesátých let minulého století.

rozpětí: 5,38 m, délka: 8,20 m, max. rychlost: 685 Km/h, max. dolet 240 až 270 km, bojová hlavice 950 kg výbušnin

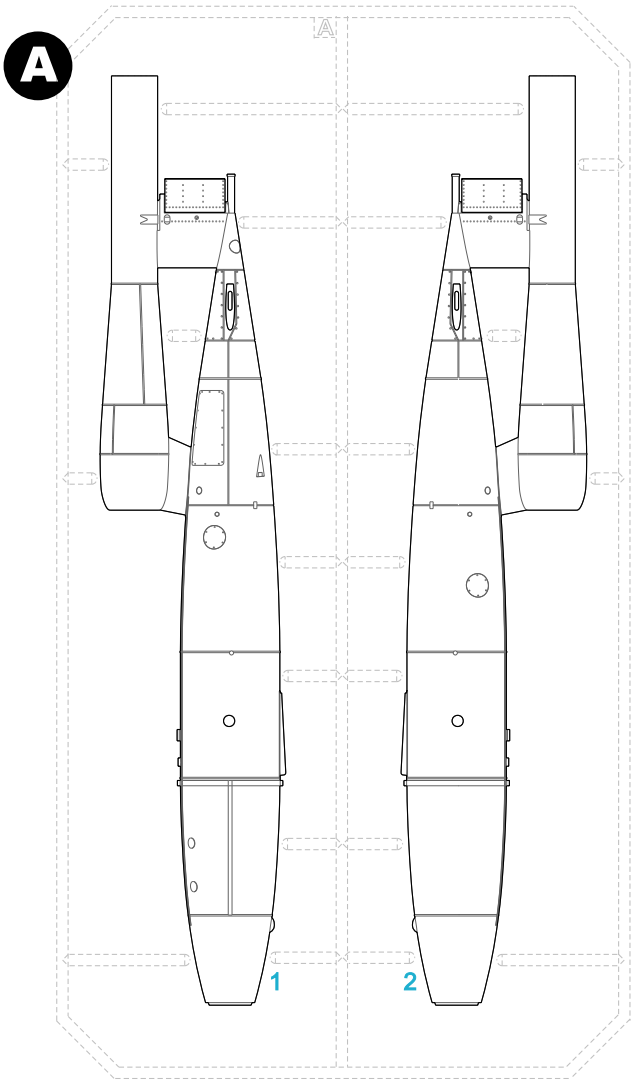
EN

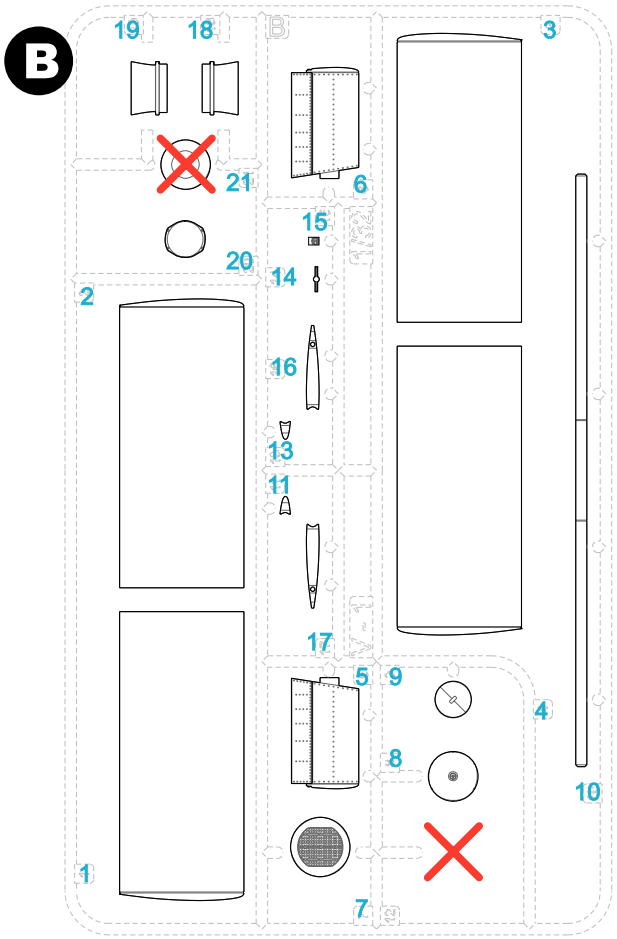
The Fieseler Fi 103 small unmanned aerial vehicle was the first of Hitler's so-called Vengeance Weapons, or Vergeltungswaffe and so is commonly known as the V-1. Its development dates back to 5 June 1942 when the German Luftwaffe placed an order calling for an aicraft-type missile with capability to carry an 800-1000kg warhead to a distance of 250km. The prototype first took off on 24 December 1942. As the Fi-103 was meant to be a one-off device, its construction was kept as simple as only possible. The slim cigar-shaped fuselage carried a gyrocompass and a warhead in its nose compartments while the mid and aft fuselage sections were fitted with fuel tanks, compressed air tanks, electric batteries and a guidance system. The plywood, rectangular-shaped wings had a tubular steel main spar, the empennage was also very simple and rectangular shaped. Above the fuselage, directly on top of the vertical fin, the aeroplane's Argus As 109-014 pujse jet power plant was located. Except for the wooden planes, the entire missile was contructed using steel. A land-based ramps were to be used for getting the missiles airborne because of insufficient static thrust of the engine and high stall speed of the small wings. Once the engine was started up on the ramp, it could operate even at zero air-speed because of the system of air intake shutters and acoustically tuned resonant combustion chamber. The missile would left the ramp at about 370kmh, the lenght of the flight was measured and controlled using a small, air driven propeller at the nose which after a certain number of revs shut off the supply of fuel to the ramjet and also the control surfaces were deployed so that the missile fall onto the target. The accuracy with which the missiles hit their targets was rather poor. It took quite long time before the Fi 103/V-1 became combat ready, they were first used just after the Allied landing in France when no.155 Anti-aircraft Artillery regiment, commanded by Oberst (col.) Wachtel targeted the capital of the UK, London. As the range of V-1s was rather restricted and the Allies advanced successfully through France, it became necessary to chose a different target, located within the missile's range. In the end, such cities as Antwerp, Liège and Brussels were made the targets for the V-1s' terror bombing. The Allies were forced to deploy substantial amount of their aerial might to try and stop those attacks, either by bombing the launch sites or using fighter aircraft to shot the airborne missiles down. Not only would the fighters use their guns in a standard way, they also used rather rare approach as they got near the V-1, placed their wing tip beneath that of the missile and simply toppled it. The guidance system gyroscopes were not able to keep the missile on course and level and it effected in a premature crash of the missile in uninhabited areas. Allied anti-aircraft defence units were also used, and in quite large numbers, to stop the attacking missiles. When the territory of France was completely liberated by the Allies and the Germans lost all their launching sites, they began using He-111 bomber aircraft of KG53 unit to launch the missiles while flying in the air.

The German V1 missiles were copied and manufactured in the USA under the designation JB-2 Loon. Reverse engineering was used and the missiles, designated JB-2 Loon, were developed based on wrecked V1s from Great Britain and also thanks to espionage. The aircraft missiles were manufactured by Republic, or rather, for capacity reasons, the company involved their subcontractors. The engines, designated PJ31, were manufactured by Ford. The JB-2 Loon missiles were to be used against Japan, but the use of the atomic bomb ended the war. Despite this, the missiles were accepted into service, and a total of 1391 was manufactured. For a rather long time, missile launches were experimented with, but eventually launching from the ground from short mobile ramps was developed. Missiles were also launched from aircraft, carried under their wings. The US NAVY developed a few ways to launch the missiles from surface ships and later also from submarines. Its missiles were designated LTV-N-2. Both USAAF and US Navy kept using their JB-2 until the mid-1950s.

Span: 5.38m, length: 8.20m, top speed: 685 kmh, max. range: 240 to 270 km, warhead: 950kg of explosives.

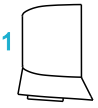
Parts List





not to be used

3D Printed part - PP



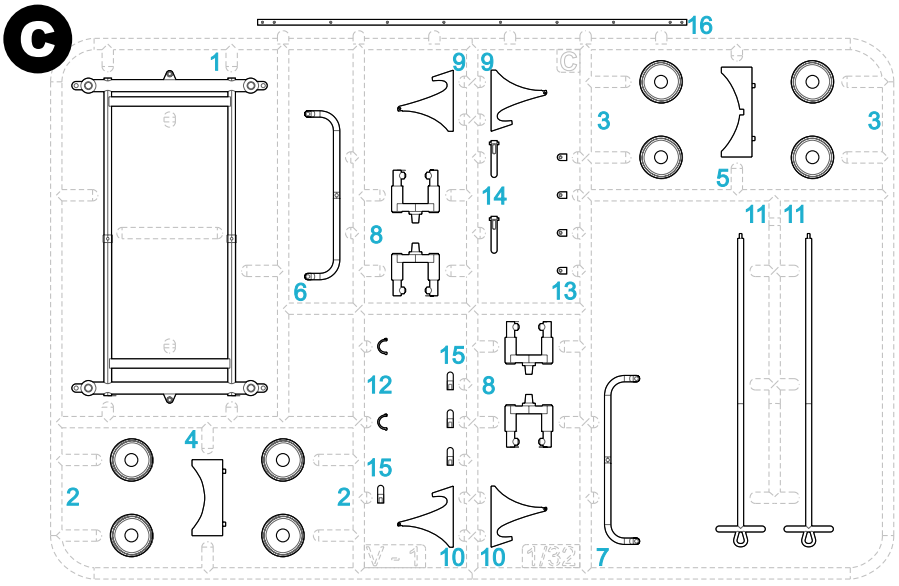
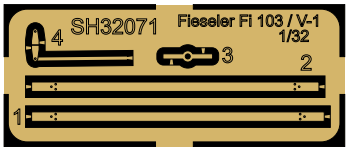


Photo Etched Parts - PE

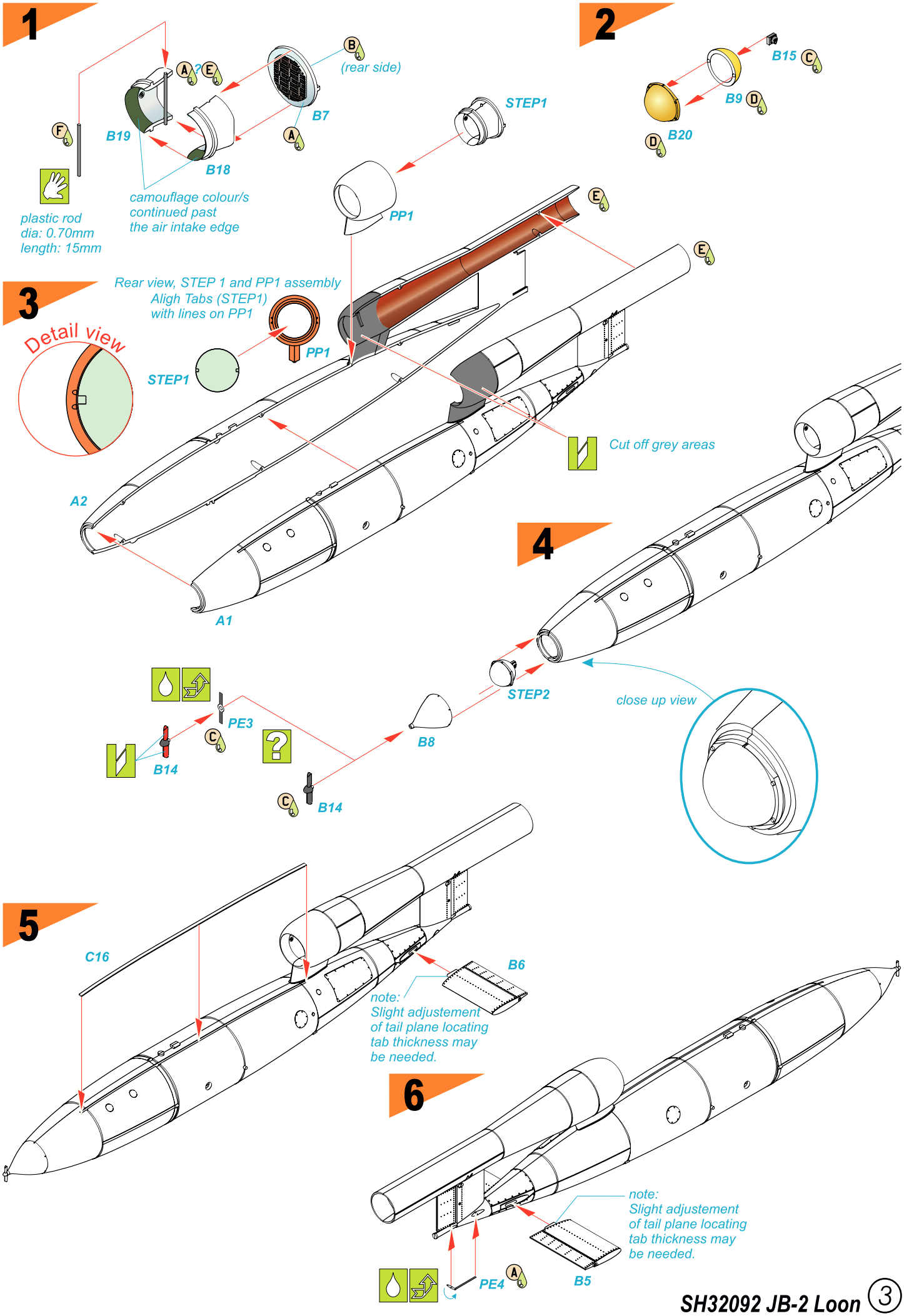


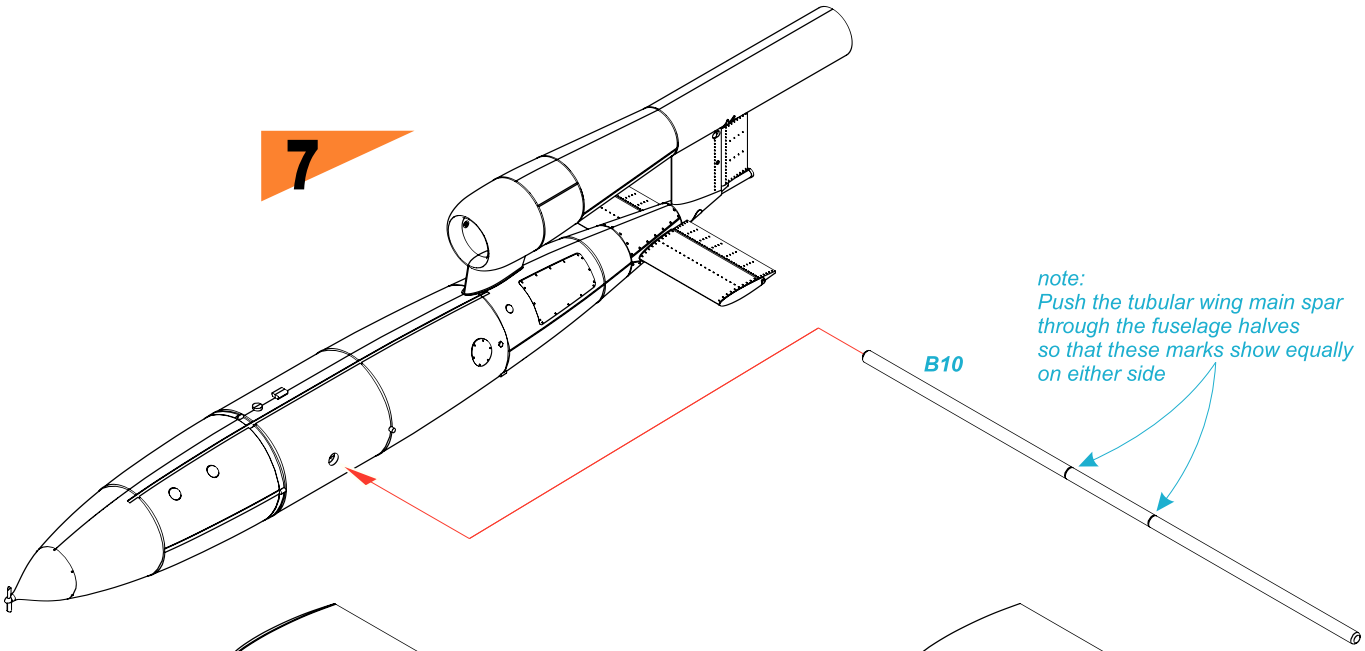
Barvy GUNZE/ GUNZE Colour No.

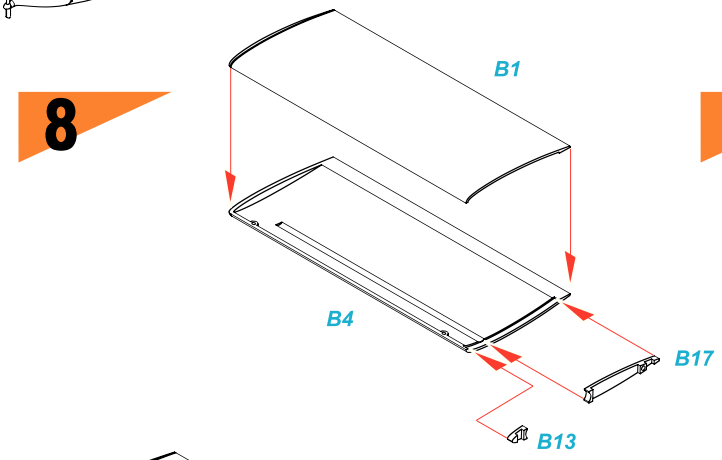
A	*Barva kovu / Metal*	H8/C8
B	*Opálený kov / Burnt Iron*	H76/C61
C	*Černá / Black*	H12/C33
D	*Žlutá / Yellow*	H4/C4
E	*Červená základová / Red Primer*	H414/C114
F	*Tmavý kov / Dark metal*	H28/C78
G	*Šedivá / Panzergrau*	H32/C40

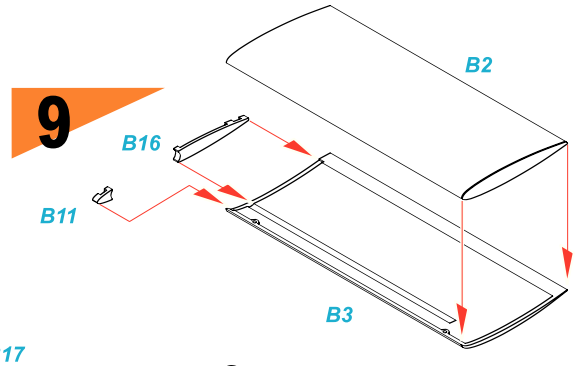
SYMBOLS

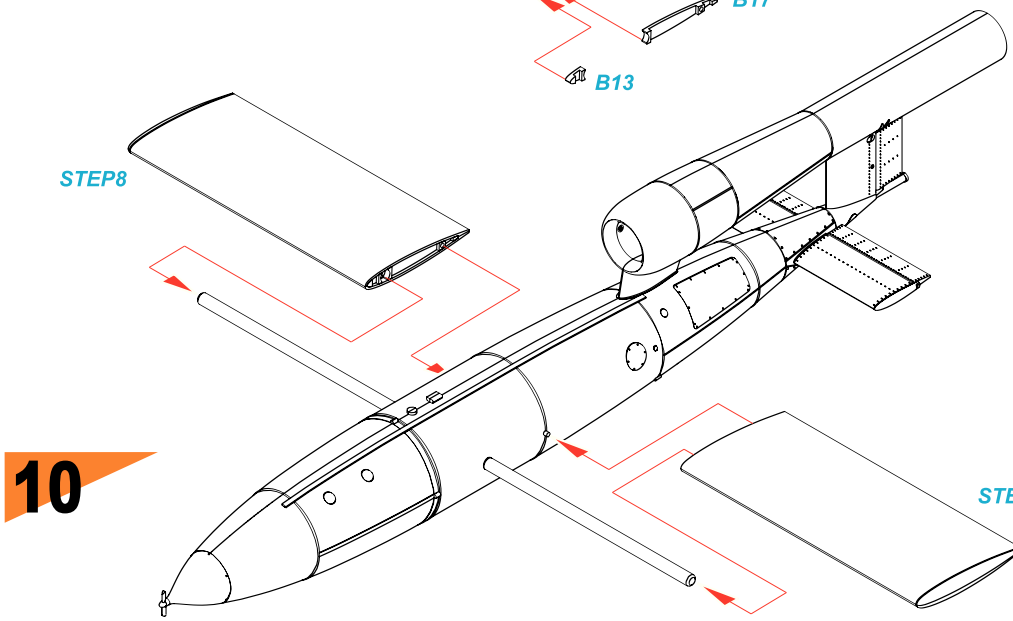
MOŽNOST VOLBY OPTIONAL NACH BELIEBEN OPTION	POUŽÍT KYANOAKRYLÁTOVÉ LEPIDLO INSTANT CYANOACRYLATE GLUE ZYANOAKRYLATKLEBER ADHÉSIF CYANOACRYLAT	OHNOUT BEND BIEGEN COURBER	ZHOTOVIT NOVĚ SCRATCH BUILD FERTIGSTELLEN ACHEVER	ŘEZAT/VRTAT CUT OFF/DRILL ENTFERNEN DETACHER	GSI colours code A NATŘÍT COLOUR FARBEN PEINDRE

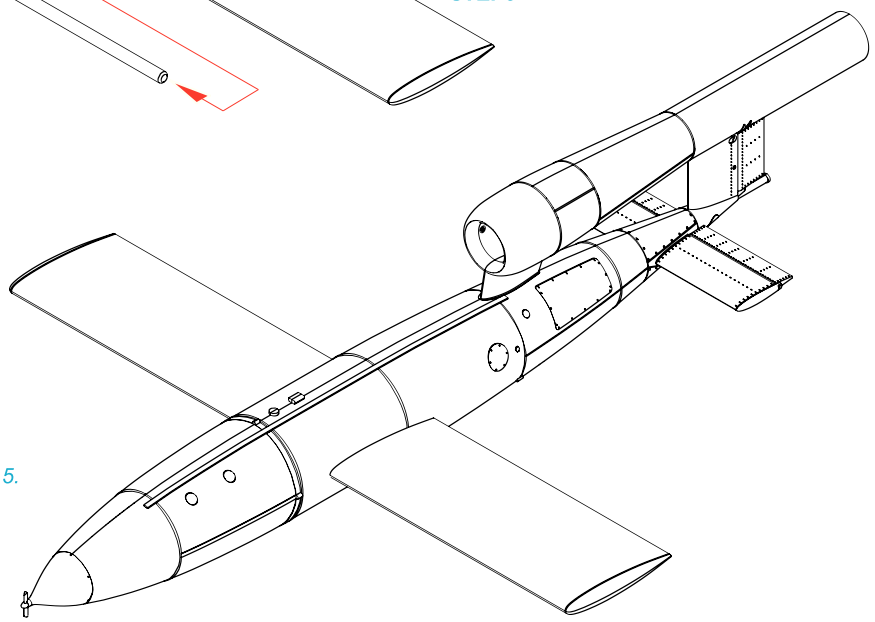

1
B19
B18
B7
(rear side)
B
A
E
F
plastic rod
dia: 0.70mm
length: 15mm
camouflage colour/s
continued past
the air intake edge
2
B15
C
B9
D
B20
STEP1
PP1
E
3
Rear view, STEP 1 and PP1 assembly
Aligh Tabs (STEP1)
with lines on PP1
Detail view
STEP1
PP1
Cut off grey areas
A2
A1
4
STEP2
close up view
B8
PE3
B14
C
5
C16
B6
note:
Slight adjustement
of tail plane locating
tab thickness may
be needed.
6
note:
Slight adjustement
of tail plane locating
tab thickness may
be needed.
B5
PE4
A









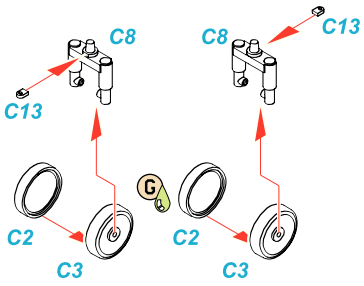


note:
Steps 1 to 10 give you the Fi 103
as ready to be launched.

To build the missile on its transport
trolley, follow steps 11 to 16 on page 5.

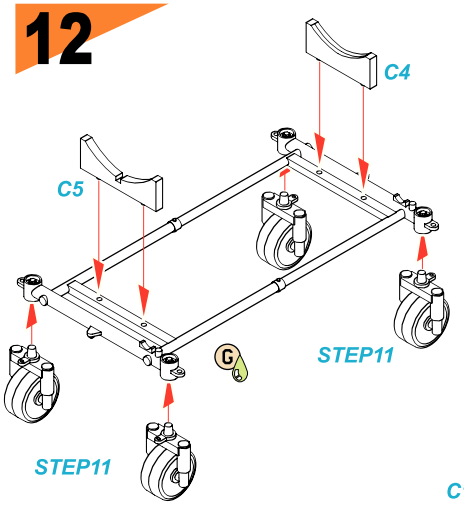
11

make 4 sets

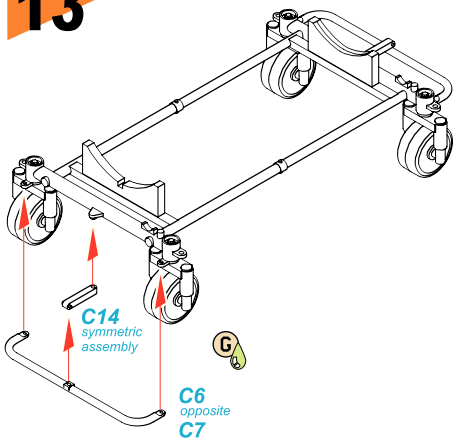


note:
Check the correct position of wheel halves C2 and C3 before you glue them together.
Rotate if necessary so that they are aligned properly.

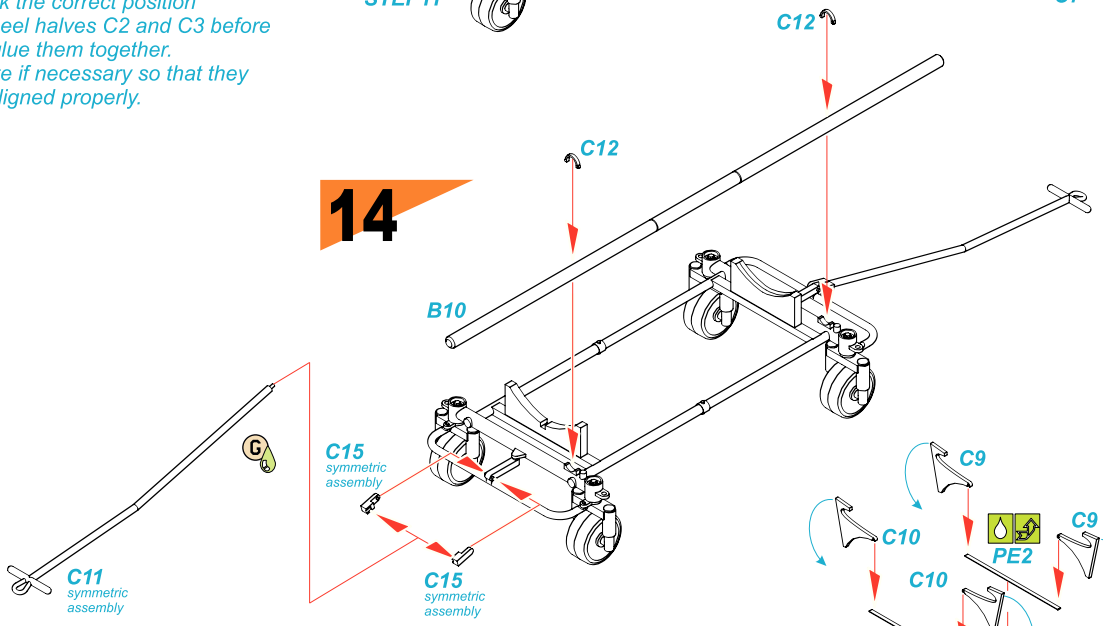
12



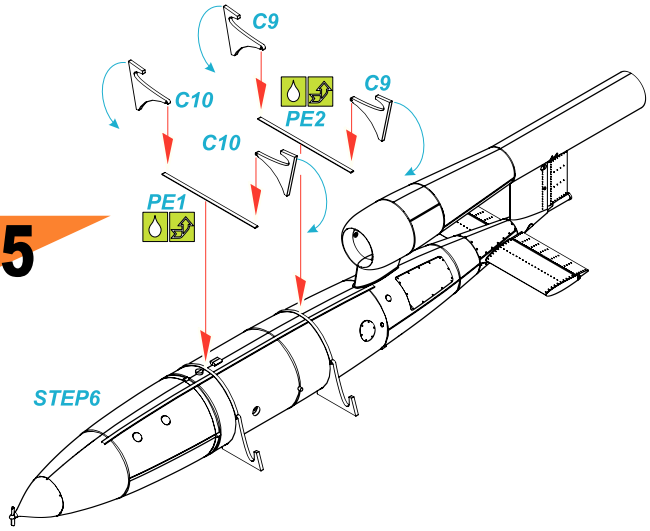
13



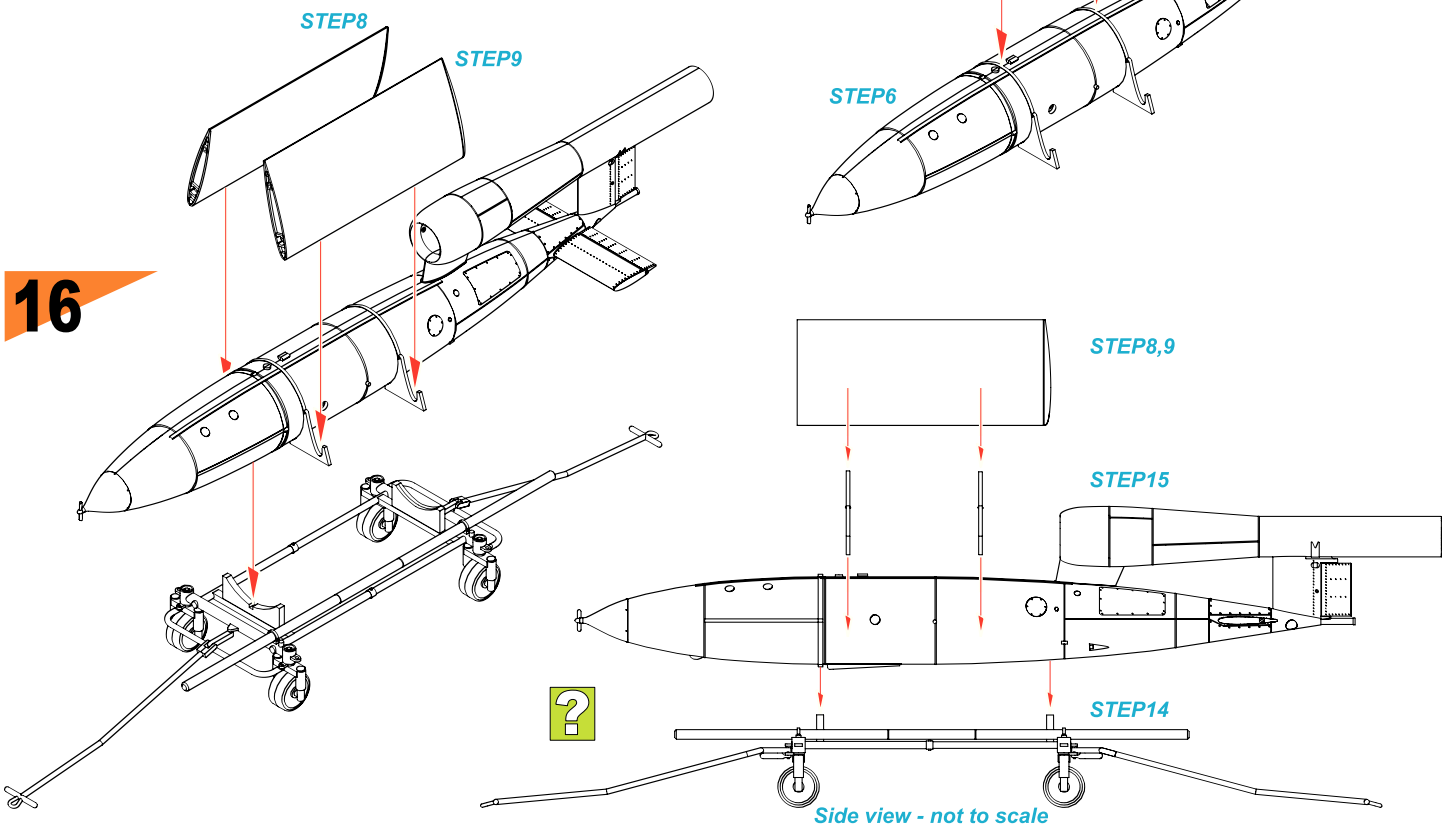
14



15



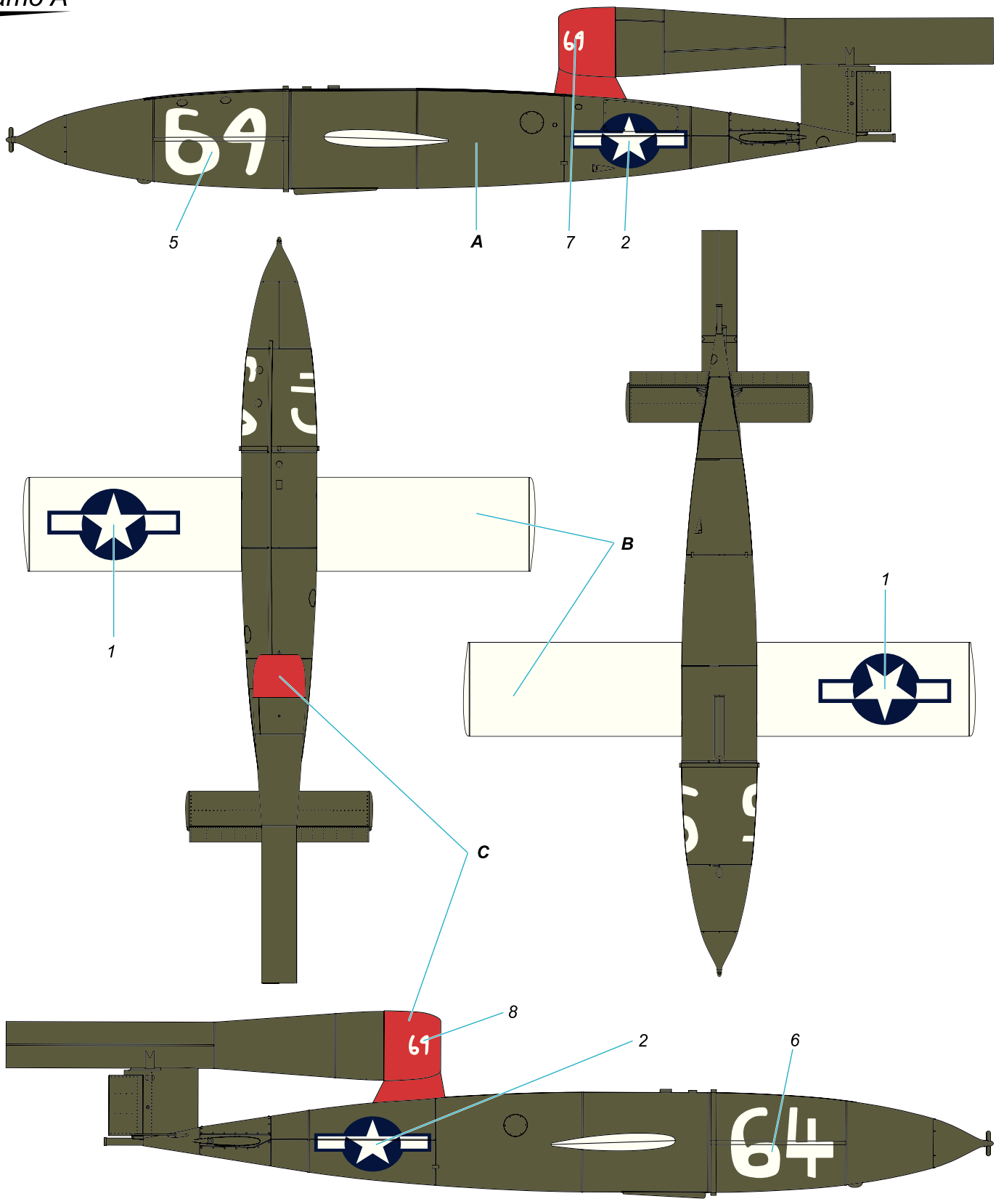
16



JB-2 Loon, No. 64. The missile was tested from a ground-based launcher. USAAF, USA, 1946.

JB-2 Loon, No.64. Střela byla testována z pozemní odpalovací rampy, USAAF, USA, 1946.

camo A



A	B	C
Olive Drab Nevýrazná olivová H52/C12	White Bílá H1/C1	Red FS11136 Červená H327/C327

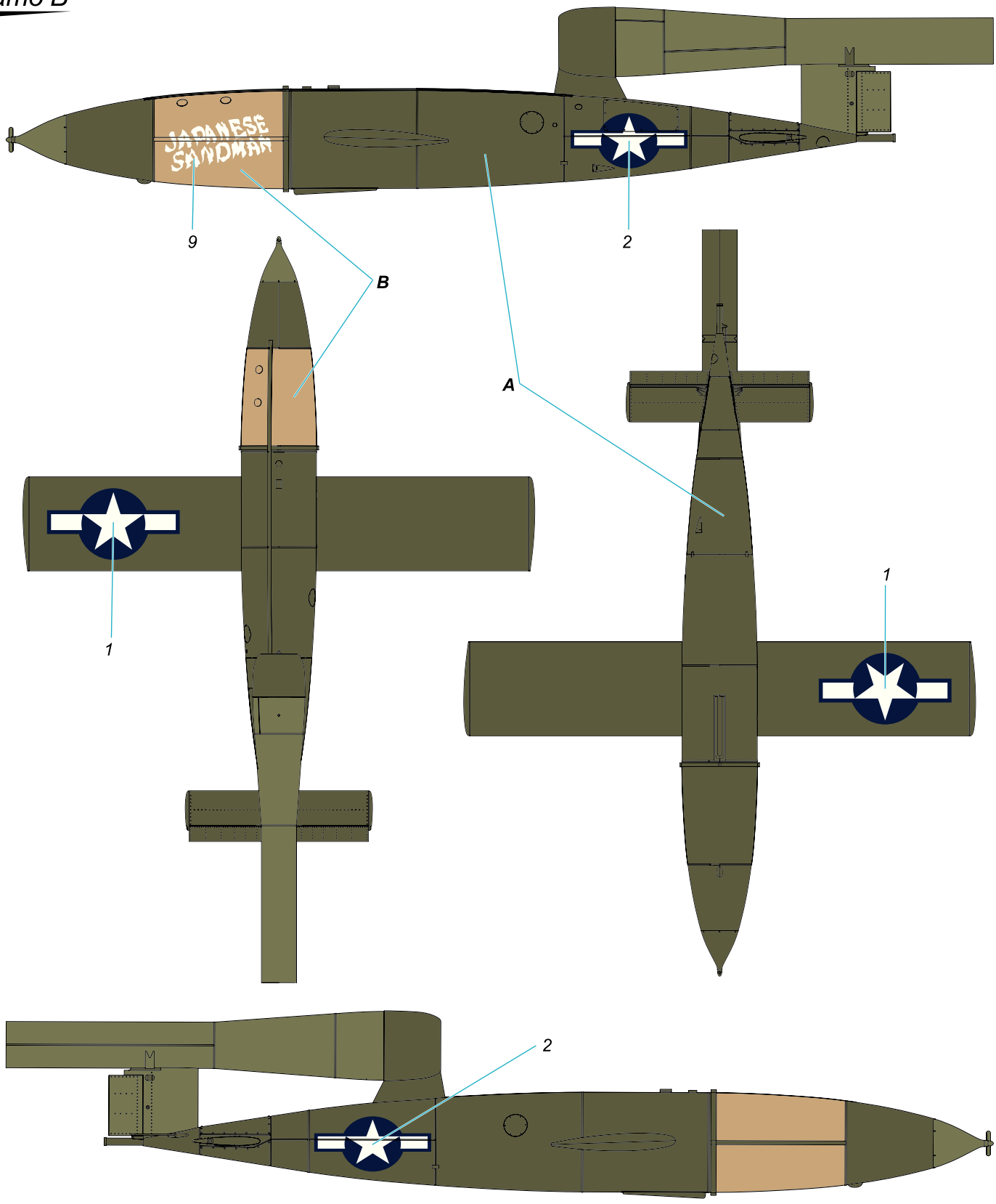
special HOBBY

GUNZE SANGYO

JB-2 Loon, "Japanese Sandman" Wright Field, Ohio, USA, 1946.
Camouflage Note: The entire missile is finished in Olive Drab. Note that various components were painted separately, resulting in subtle tonal variations across the airframe.

JB-2 Loon, pojmenovaný Japanese Sandman, základna Wright Field, Ohio, USA, 1946.
Poznámka ke kamufláži: Celá střela Olive Drab, některé celky byly barveny samostatně a vykazují odlišný odstín.

camo B



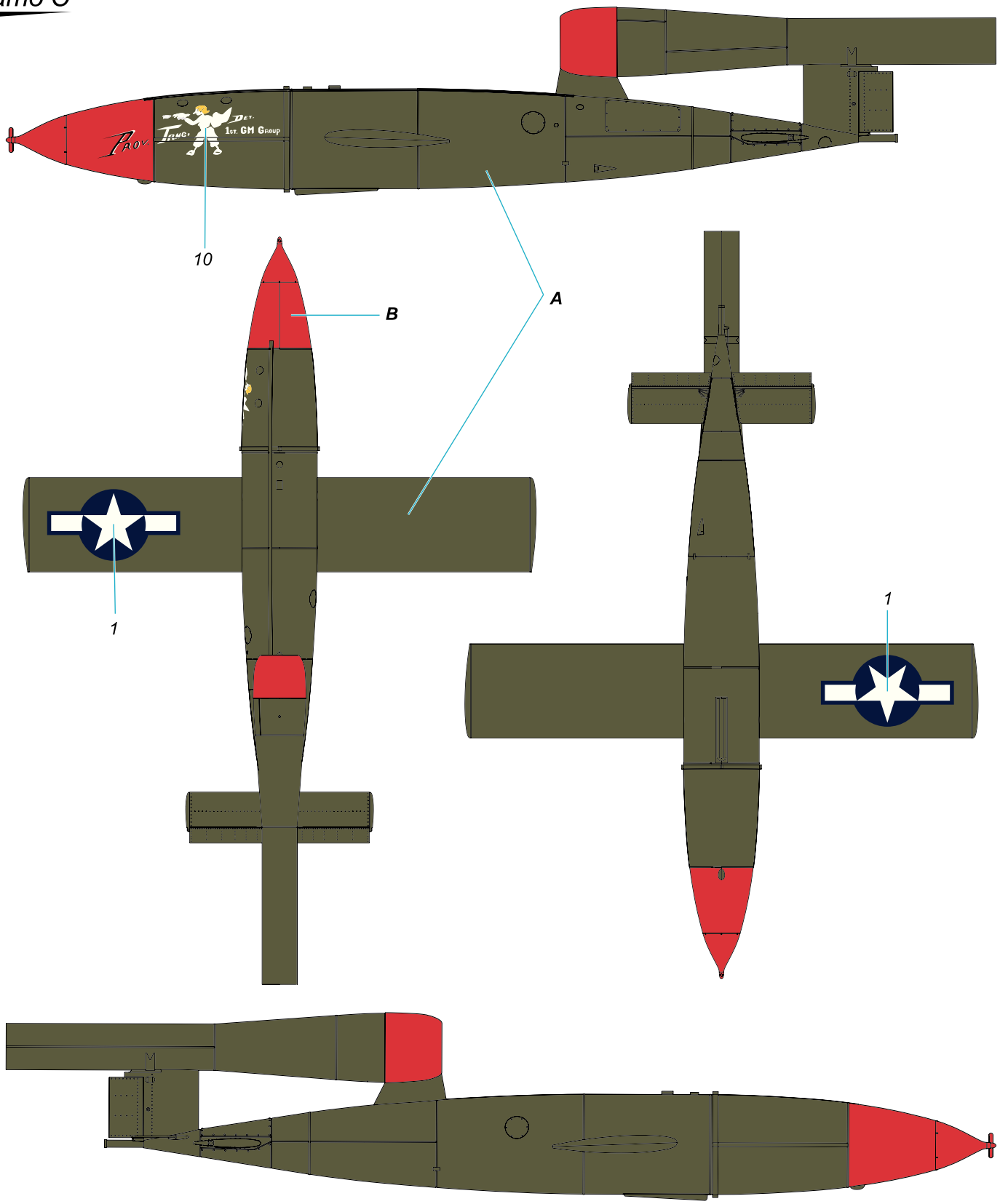
A — *Olive Drab*
Nevýrazná olivová
H52/C12

B — *Tan*
Žlutohnědá
H27/C44

JB-2 Loon, 1st Experimental Guided Missiles Group USAAF, Eglin AFB, Florida, USA, 1946–47. This specific missile featured Provisional Training Detachment markings and custom nose art (caricature).

JB-2 Loon, 1. Experimental Guided Missiles Group, USAAF, Englin AFB, Florida, USA, 1946-47. Tato střela nesla označení Provisional Training Detachmentu a karikaturu.

camo C



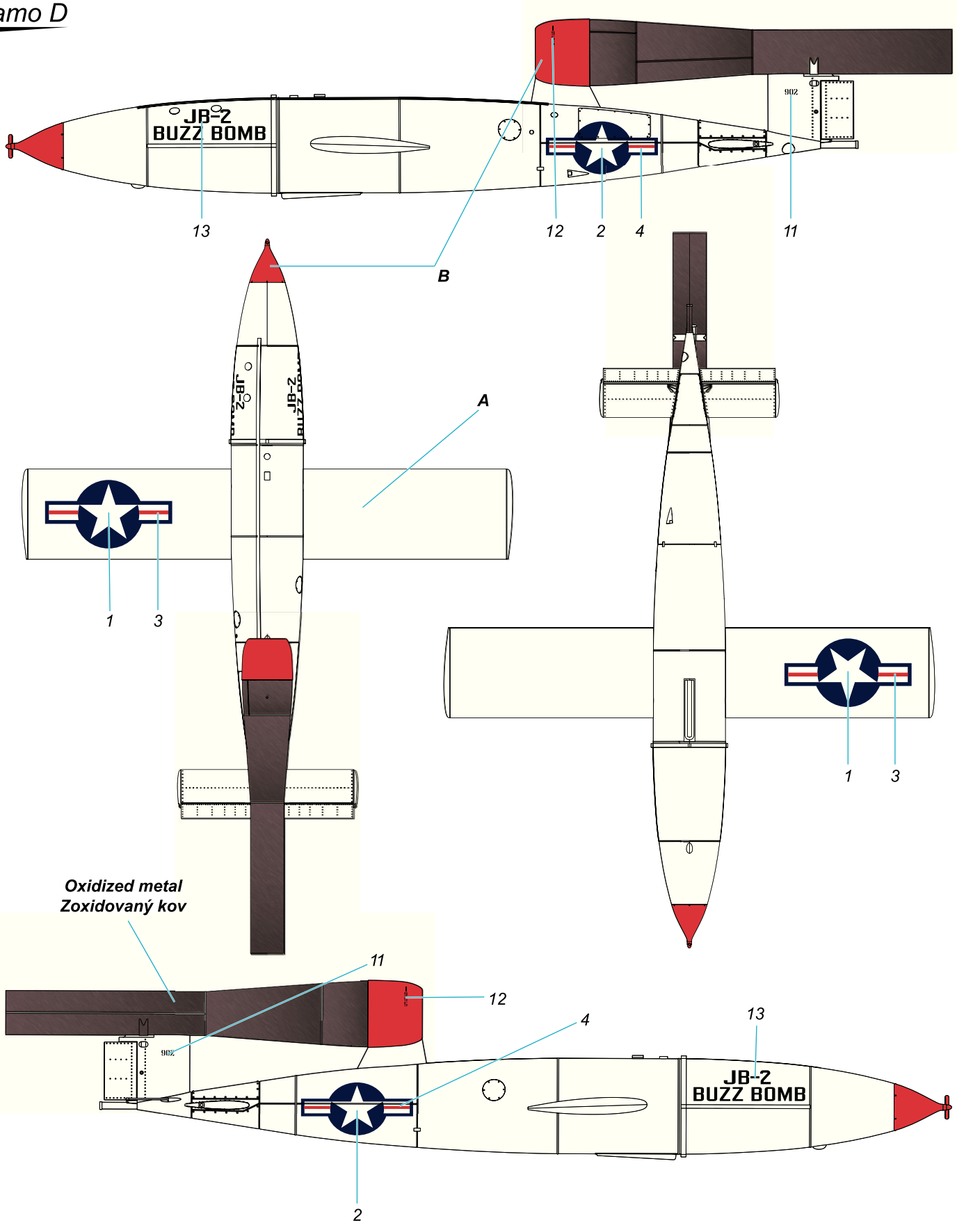
A Olive Drab
Nevýrazná olivová
H52/C12

B Red FS11136
Červená
H327/C327

JB-2 Loon. Launched from a ground-based test ramp at Holloman AFB. USAAF, May 1948.

JB-2 Loon. Střela byla testována z pozemní odpalovací rampy na Holloman AFB, USAAF, květen 1948.

camo D



A *White*
Bílá
H1/C1

B *Red FS11136*
Červená
H327/C327

Special HOBBY

GUNZE SANGYO

H1020 Razor Saw Profi Set

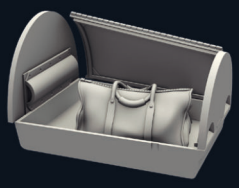
A new type handle for
our razor saws.
Also contains H1018 and H1019 spare saws.

H1018
Triangle Razor Saw (1pc)

H1019
Multi-Shift Razor Saw (1pc)

1/32 DH.82 Tiger Moth

CMK sets for ICM kit



5137
Luggage Box

5138
Correction Propeller

5139
Mainwheels and Tailskid

5140
Instrument Panels with Compasses and Coaming, Correction Set

H1011 CMK sanding stick four different grit of sanding papers on one sanding stick.

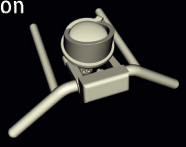
The Razor Saw with Handle (cat. n. H1010) is a great tool for cutting both plastic and resin. CMK also offers a wide variety of coarse/medium/fine saws.

H1000 *Ultra smooth and extra smooth saw (2 sides – 70 teeth / 42 teeth) 1 pc*
H1001 *Ultra smooth saw (both sides – 70 teeth / 70 teeth) 1 pc*
H1002 *Very smooth saw (both sides – 42 teeth / 42 teeth) 1 pc*
H1003 *Smooth saw (both sides – 31 teeth / 31 teeth) 1 pc*
H1004 *Ultra smooth and extra smooth saw (2 sides – 70 teeth / 42 teeth) 5 pcs*
H1005 *Ultra smooth saw (both sides – 70 teeth / 70 teeth) 5 pcs*
H1006 *Very smooth saw (both sides – 42 teeth / 42 teeth) 5 pcs*
H1007 *Smooth saw (both sides – 31 teeth / 31 teeth) 5 pcs*
H1010 *Razor Saw with Handle*

Star Dust
weathering pigments

Q32239
Tempest Mk.V/VI
Exhausts set

Q32248
Gunsight Type I Mk. III
For Tempest Mk.V and late Typhoon



Q32238
Tempest Mk. II / V Series 2 / Mk.VI
Cannon barrels with wing leading edge

Q32240
Tempest Mk. II/V/VI
Control column

Q32244
Tempest/ Typhoon
Tail wheel with strengthened leg

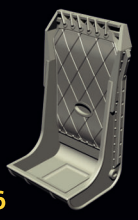
Q32241
Tempest Mk.II/V/VI
Early and late cannon barrels

CZECH MASTER'S KITS

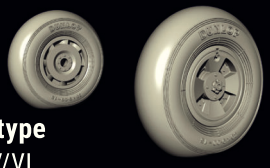
RESIN SETS FOR YOUR TEMPEST

IN 1/32 SCALE

Q32245
Tempest/Typhoon
Pilot's seat with harness



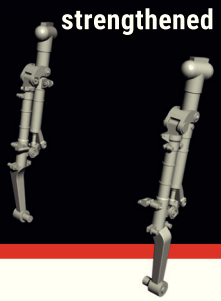
Q32246
Tempest/Typhoon
Pilot's seat



Q32242
Main wheels late type
For Tempest Mk.II/V/VI

Q32275
Square tread pattern mainwheels
For Tempest Mk.II/V/VI

5108
Main undercarriage strengthened legs



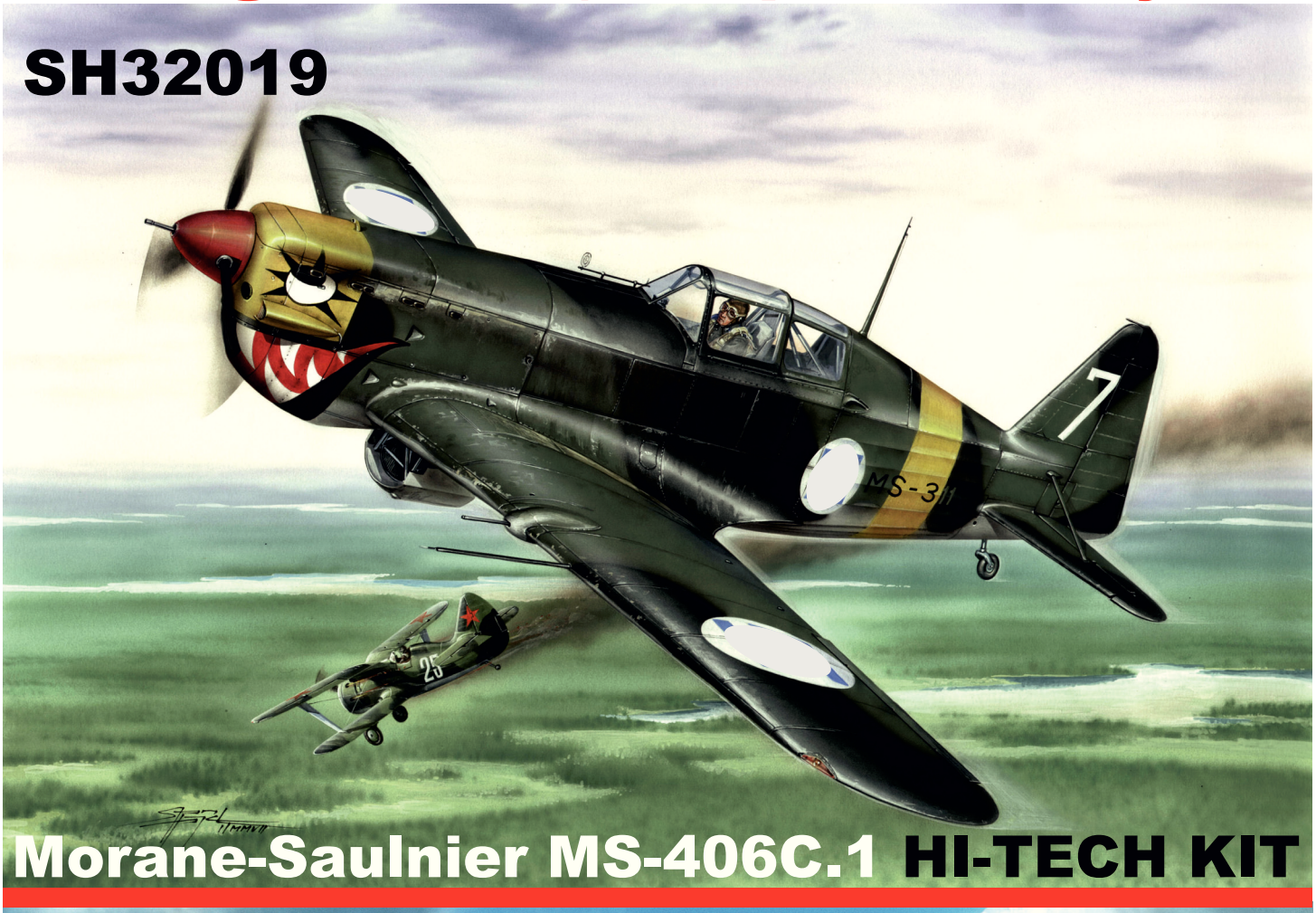
5109
Armament set for starboard side wing

F32316
British Tempest pilot, sitting

F32317
British Tempest pilot, climbing out of cockpit

F32340 British WWII Tempest mechanic

WWII fighters as 1/32 Special Hobby kits



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