

## Historie **Biber "German Midget Submarine"** **cz**

Biber byl jednou ze zbraní vyvinutých během druhé světové války v období, kdy se situace na frontách obracela v neprospekch Německa. V roce 1943, kdy začalo být jasné, že dojde k invazi někde na atlantickém pobřeží Evropy, začaly být v Německu vyvíjeny neortodoxní zbraně, které měly invazi zabránit. Vedle říditelných torpéd Neger, Marder a Hai měly invazní flotilu zastavit i miniponorky Biber a Molch.

Ideový návrh Biberu pocházel od korvetního kapitána Bartelse. V továrně Flenderwerke v Lübecku, kde byly postaveny prototypy a rozjela se sériová výroba, vývoj vedl Hermann Bunte. Bartels byl údajně ovlivněn ukořistěnou britskou miniponorkou Welmann W46. Miniponorka Biber měla výtlač 6,6 tuny. Na hladině ji poháněl automobilový motor Opel Blitz a pod hladinou elektromotor GL231 firmy SSW. Potopit se mohl do hloubky 20m, nouzově do 30 metrů. Výzbroj tvořila dvě torpéda G7e nebo miny. Konstrukce byla tak malá, že byl Biber jednomístný. I tak neměl řidič, sedící ve věži mnoho pracovního prostoru.

Prototyp Biberu, nazvaný Adam byl testován na vodě od 29. března 1944. Ze začátku byly testy neúspěšné, ale po odladění nedostatků svolil K. Dönitz k výrobě dalších čtyř prototypů a později k sériové výrobě. Ta dala celkem 324 kusů Biberů, na výrobu se podílely Flenderwerke, Ansaldo a Klökner-Humbolt-Deutz.

Bibery byly zařazeny do tzv. K-flotilly, označených čísly 1 až 9. Nasazeny byly během invaze v Normandii v Lamanšském průlivu, v Severním moři v Norsku, v ústí Šeldy a také na řece Waal při útoku na most v Nijmegenu. Jejich úspěšnost jako nosičů torpéd byla velmi nízká. Více úspěchů Bibery dosáhly kladením min. Během nasazení se objevily problémy s pronikáním výfukových plynů do řidičovy sekce. Velká část ztracených Biberů připadá na tuto závadu. Vzhledem k malé výšce měli řidiči, orientující se podle kompasu, problémy s orientací a nalezení cíle. Navíc byl Biber, na hladině stabilní a obratný, pod hladinou nestabilní. I když bylo několik Biberů ukořistěno během války, nedočkaly se větších testů. Několik přeživších Biberů je vystavováno v muzeích.

## History **EN**

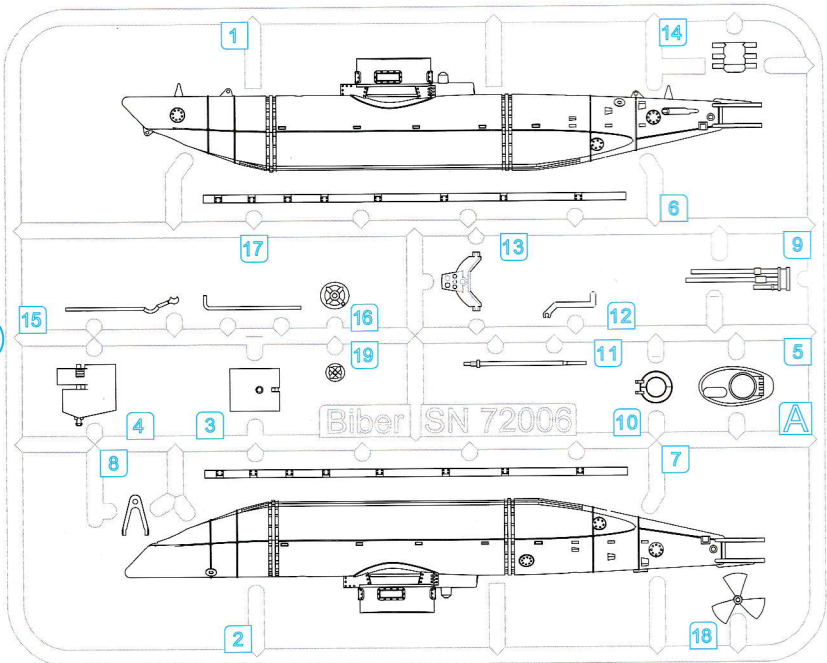
The Biber was one of the weapon systems developed during the Second World War at the time when the situation for Nazi Germany was gradually becoming worse and worse on both fronts. In 1943 it became clear that the Allied invasion would take place soon somewhere on Europe's Atlantic coast so the German military began to seek and develop new and rather unorthodox types of weapons to avert the invasion. Along the Neger, Marder and Hai manned torpedoes, also the Biber and Molch midget submarines were to stop the invasion fleet.

The original idea of the Biber sub came from Korvettenkapitän Robert Bartels and first prototypes were built and the production took place at Flanderwerke in Lübeck, the development being led by Hermann Bunte. Allegedly, Bartels was influenced by captured British Welman W46 midget sub. The Biber's displacement was 6.6 tonnes, on the surface it was powered by a 32 HP Otto Blitz petrol engine and while submerged, the propulsion was provided by a Siemens SSW GL231 electric motor. The Biber could submerge down to 20m, in emergency to 30m. It could carry either two G7e torpedoes or mines. The hull was so diminutive that its operator (only a crew of one was possible) did not have much space in the conning tower.

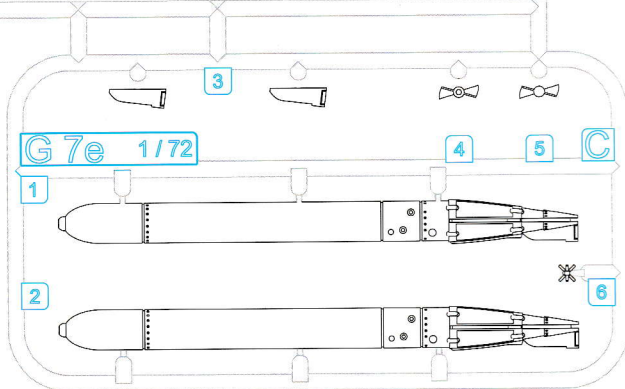
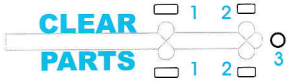
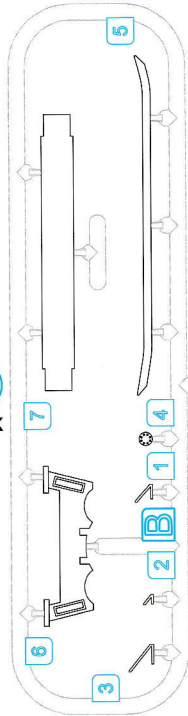
The Biber prototype, known also as Adam, was put to tests on 29 March 1944, though the tests were not quite successful and several improvements had to be implemented before German admiral Karl Dönitz approved building of four further prototype Biberes and later also the large scale production, which would give a total of 324 Biberes from Flanderwerke, Ansaldo and Klökner-Humbolt-Deutz plants.

In service, Biberes were put into so-called K-flotillen numbered 1 to 9, which saw action in the English Channel during the Allied invasion, in the North Sea off Norway, in the Scheldt estuary and also in the river Waal during the attack on the Nijmegen bridge. Biberes did not enjoy much success in the torpedo-carrying role, mine-laying missions suited them better. Some trouble also occurred due to the exhaust fumes getting into the operator's station and many Biberes were lost just to this reason. The conning tower lacked in height causing the submarine pilot, who was equipped only with wrist compass, difficulties in finding his way to the target. Moreover, the Biber although being rather manoeuvrable and stable on the surface, was clumsy while submerged. Several Biber submarines were captured during the war, but the Allies did not seem to find interest in them and tested them only very briefly. Some of the surviving machines have been put to display in museums.

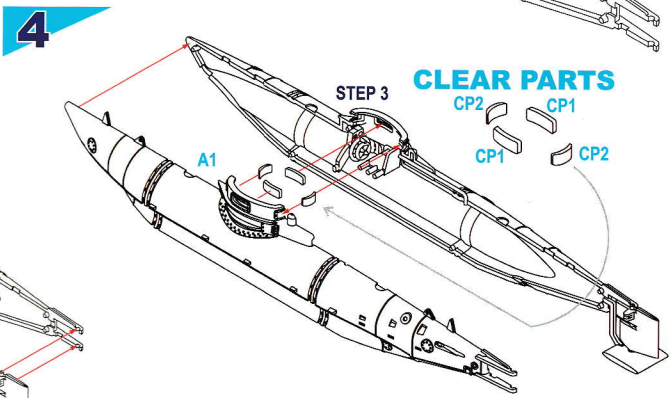
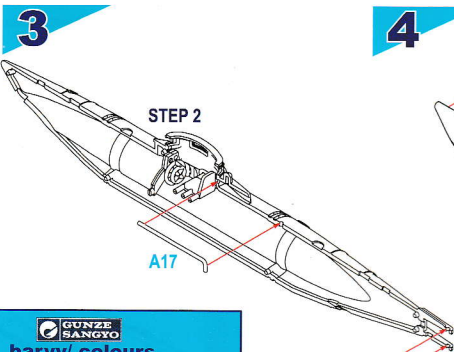
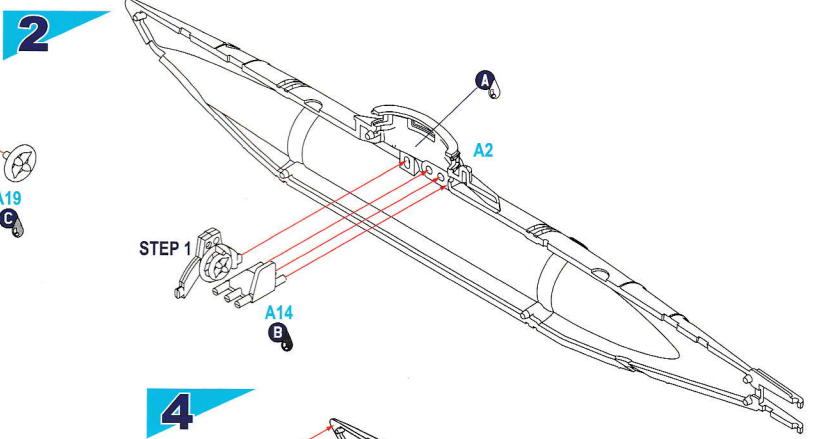
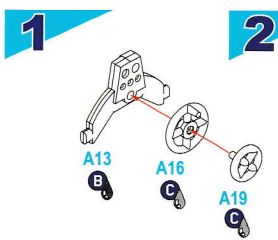
**A**



**B**  
2x



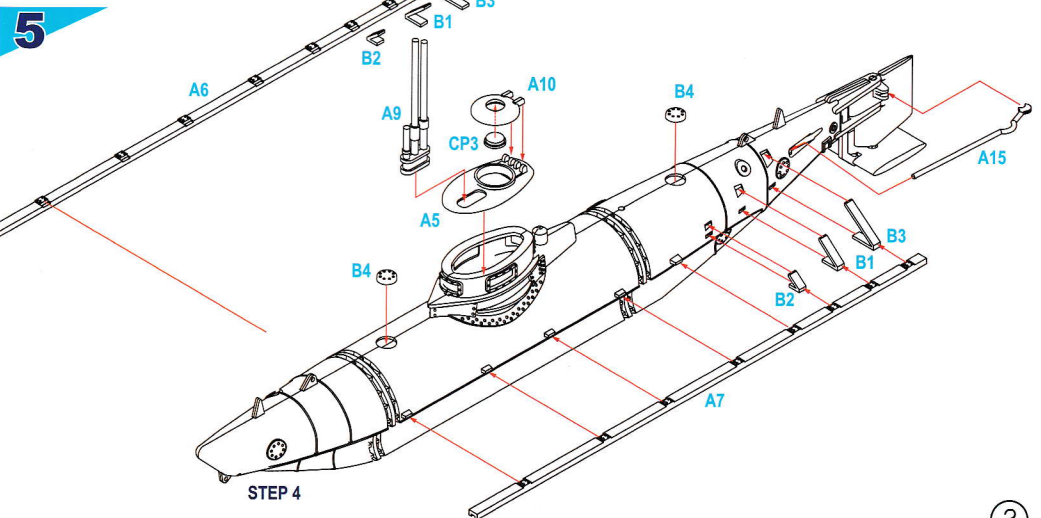
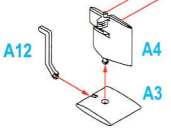
**C**  
2x



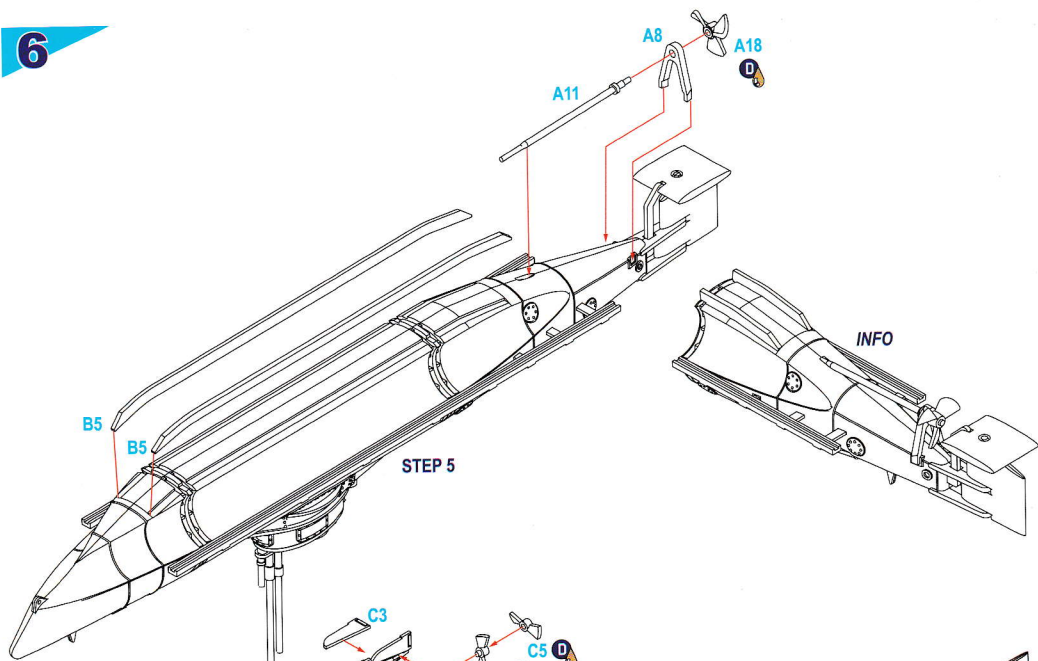
**GUNZE SANGYO**

**barvy/ colours**

- A** Spinavě bílá / Off White  
H21 / C69
- B** Černá / Flat Black  
H12 / C33
- C** Světle šedá / Light Gray  
H324 / C324
- D** Mosaz / Brass  
MD219



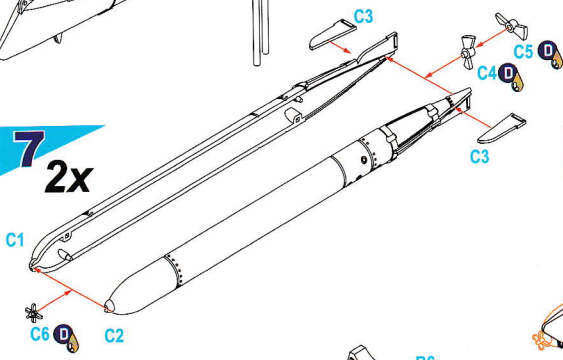
6



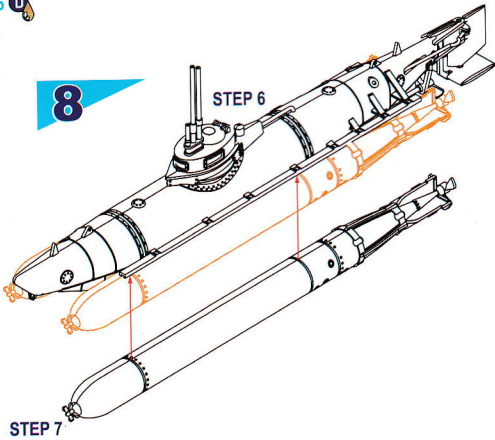
STEP 5

INFO

7  
2x



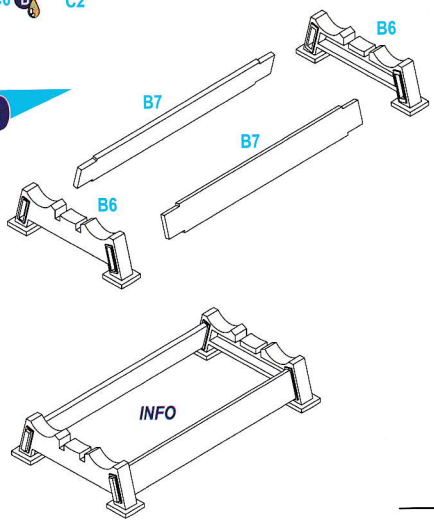
8



STEP 6

STEP 7

9



INFO

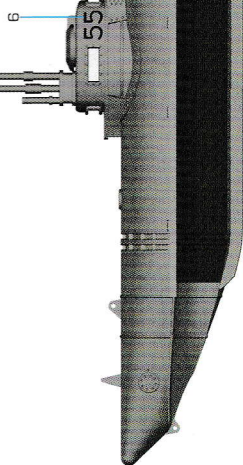
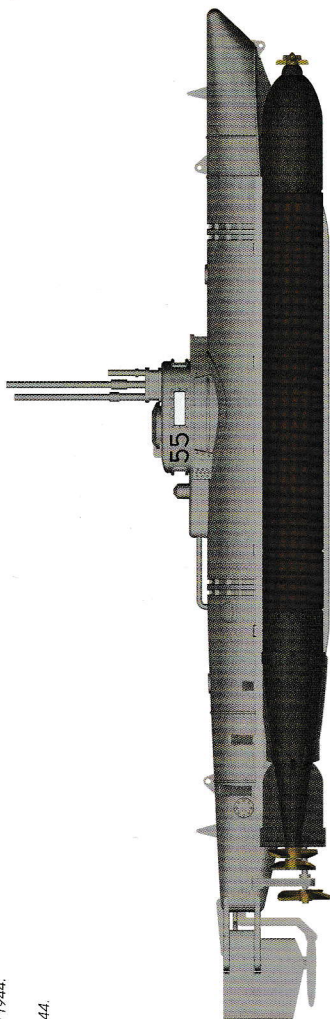
Biber č. 55, neznámá k-Flotille německého námorníctva, konec roku 1944.

Biber no.55, unknown k-Flotille, Kriegsmarine (German Navy), late 1944.

CAM. A

Írná šedá  
Dark Grey  
H83/C32

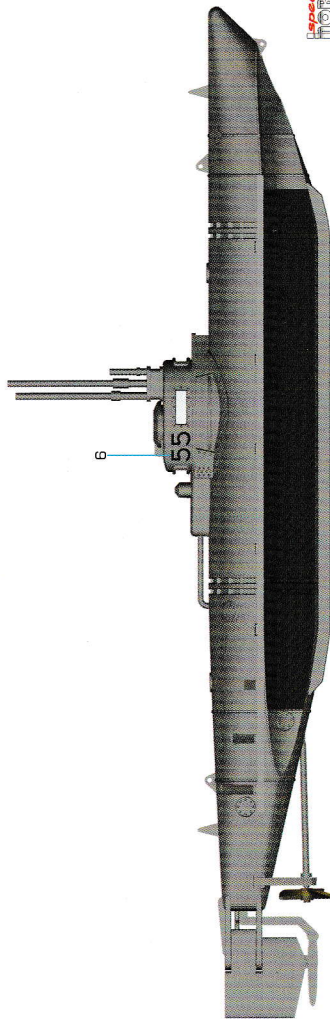
Oceli ošleřena vazelínou  
Steel Treated With Grease  
H92/C49 přes over H18/C28



Mosaz  
Brass  
MC219

Šedá  
Grey  
H324/C324

Černošedá  
Black-Grey  
H77/C137




Biber, kamuflovaný políněkalika barev a ozdobeny tlamaou, K-Flottille 263 (3. Biber-Flottille), základna Høllen, Narvik, jaro 1945.

Biber wearing a four tone camouflage scheme and a shark mouth, K-Flottille 263 (3. Biber-Flottille), Høllen base, Norway, Spring

**CAM. B**


 Tmavá šedá  
 Dark Grey  
 H83/C32


 Ocel ošetřena vazelínou  
 Steel Treated With Grease  
 H92/C49 přesl' over H18/C28



Diving Plane



Top Side



Under Side


 Mosaic  
 Brass  
 MC219


 Šedá  
 Grey  
 H324/C324


 Bílá  
 White  
 H1/C1


 Hnědá  
 Brown  
 H324/C324


 Černá  
 Black  
 H12/C33

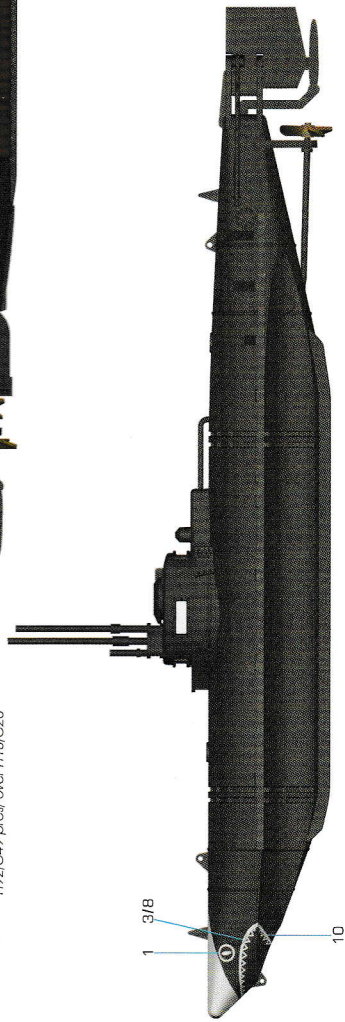
14 12

Biber ozdobený žilami, neznámá K-Flotille německého námořnictva, začátek roku 1945. Stroj byl vyplaven na břeh s mrtvým žiláčkem, otráveným výukovými zplodinami.  
 Biber with a shark mouth, unknown K-Flotille, Kriegsmarine, early 1945. Washed up on shore with its pilot dead, suffocated by exhaust fumes.

CAM, C.

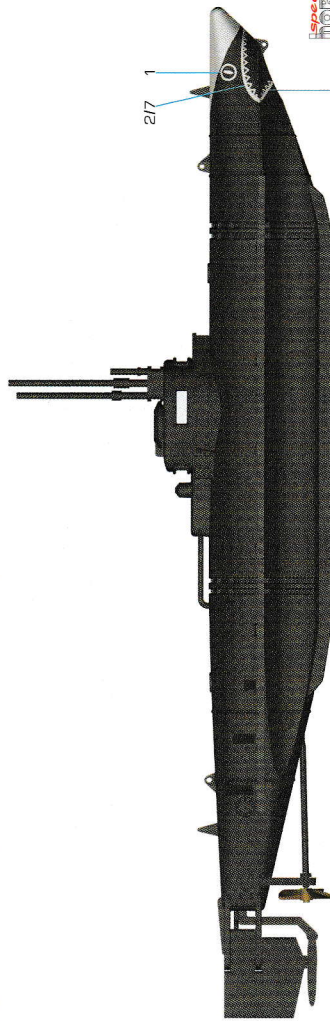

 Tmavá šedá  
 Dark Grey  
 H63/C32


 Ocel ošetřena vazelínou  
 Steel Treated With Grease  
 H92/C49 přes / over H18/C28




 Mosaz  
 Brass  
 MC219


 Světlá šedá  
 Light Grey  
 H338/C338



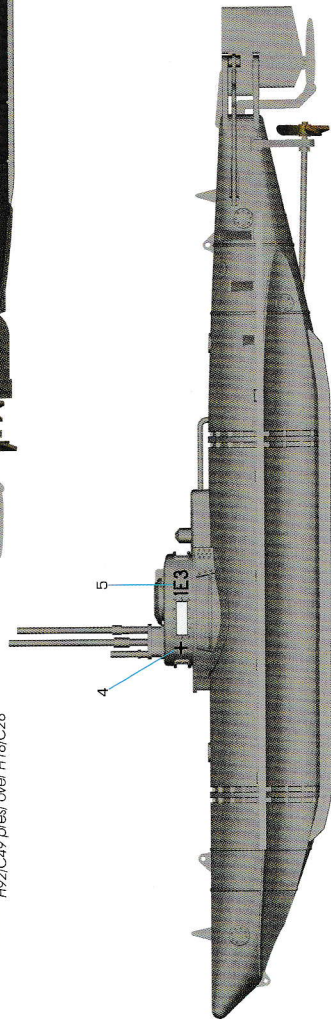
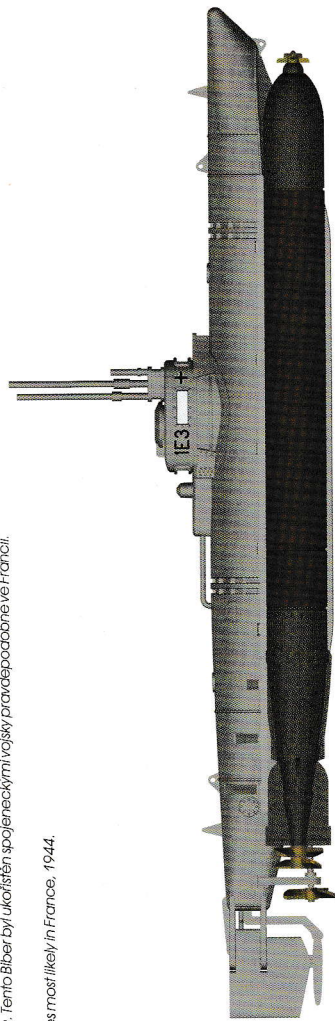
Biber s označením IE3, neznámá K-Flotte německého námořnictva. Tento Biber byl ukolštěn spojeneckými vojáky pravděpodobně ve Francii.

Biber, IE3, unknown K-Flotte, Kriegsmarine, captured by Allied forces most likely in France, 1944.

CAM, D

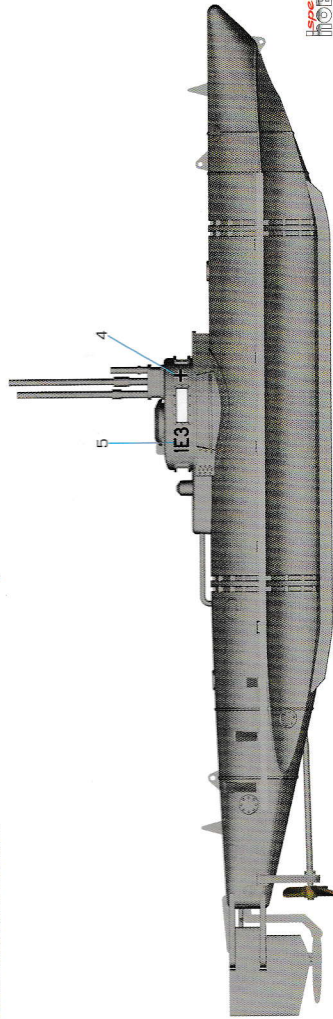
● Tmavá šedá  
Dark Grey  
H83/C32

● Oceli ošetřena vazelinou  
Steel treated With Grease  
H92/C49 přesl over H18/C28



● Mosaz  
Brass  
MC219

● Šedá  
Grey  
H824/C324





Biber's označením 87, neznámá K-Flotille německého námořnictva, 1945.

Biber no. 87, unknown K-Flotilla, Kriegsmarine, 1945.

CAME

● Tmavá šedá  
Dark Grey  
H83/C32

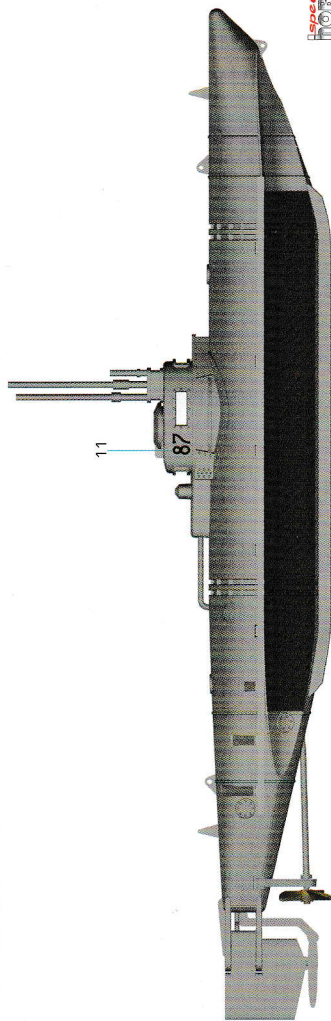
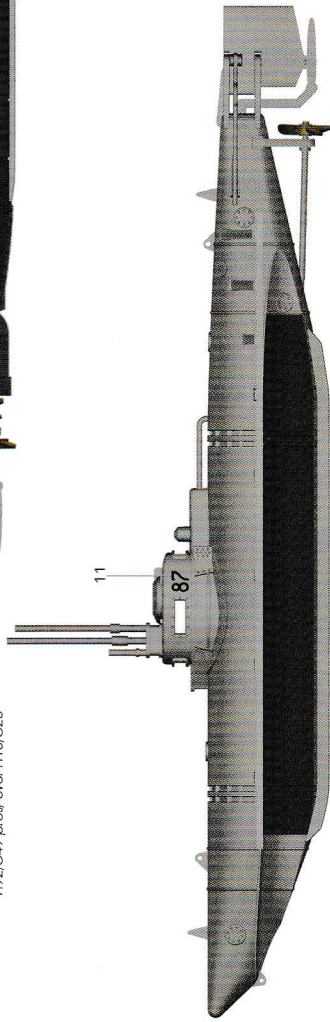
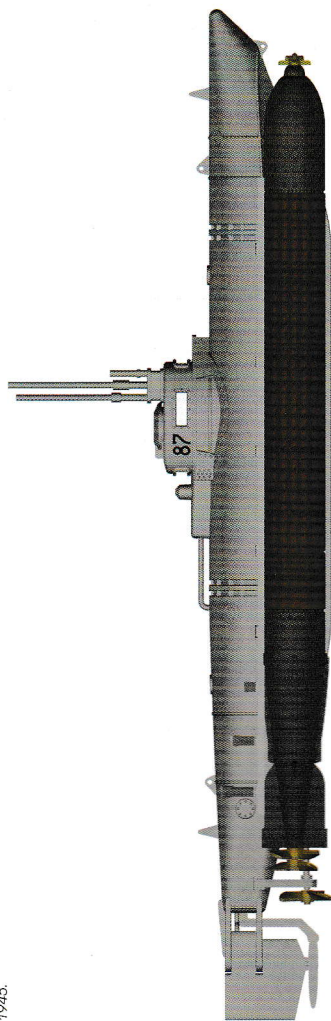
● Ocel ošetřena vazelínou  
Steel Treated With Grease  
H92/C49 přesť over H18/C28

11  
87

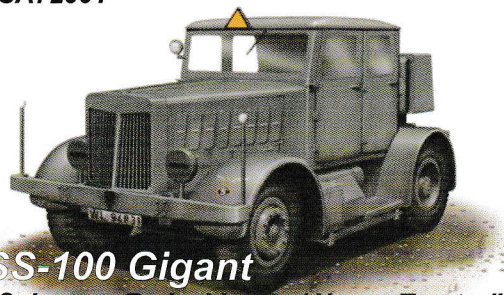
● Maxaz  
Brass  
MC219

● Šedá  
Grey  
H324/C324

● Černo-šedá  
Black-Grey  
H77/C137

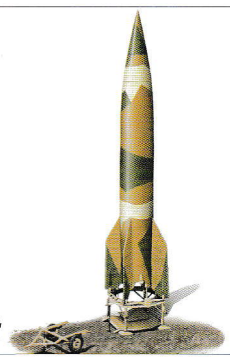


SA72001



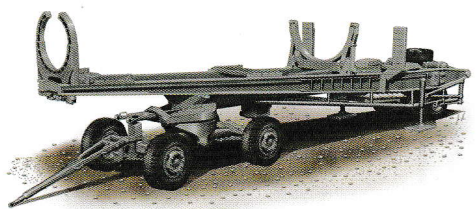
**SS-100 Gigant**  
"Schwerer Radschlepper/ Heavy Tractor"

SA72003



**A4/V2 Rocket**

SA72012



**Meillerwagen** "V-2 Transporter"

SA72014



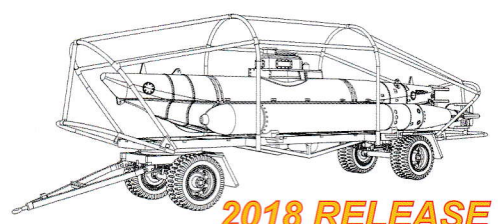
**A4/V2 Prototypes**

SA72015



"Liquid Oxygen Tank for V2 Rocket"  
**A-Stoffanhänger**

SA72018



**2018 RELEASE**  
**Biber Trailer** (Biber not included)

**USE CMK TOOLS AND WEATHERING PIGMENTS FOR YOUR KITS.**

**H1010 HANDLE FOR OUR SAWS**  
- PRICELESS TOOL FOR RESIN PARTS ADJUSTMENT



**H1011 CMK SANDING STICK**  
- FOUR DIFFERENT GRIT OF SANDING PAPERS ON ONE SANDING STICK.



**Star Dust**  
weathering pigments

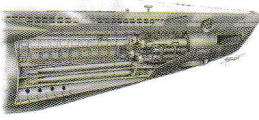
ALL OF THE ABOVE ITEMS CAN BE FOUND AND ORDERED VIA OUR OFFICIAL WEBSITE AND E-SHOP.....

**WWW.CMKKITS.COM**  
**WWW.SPECIALHOBBY.EU**

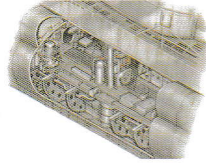


### THE BEST RESIN SETS FOR THE TYPE VIIC SUBMARINE (1/72 REVELL KIT)

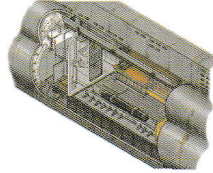
**N72002 (1/72)**  
U-boat VII Torpedo section



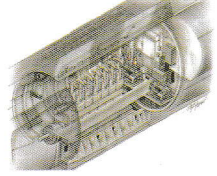
**N72001 (1/72)**  
U-boat VII Command section



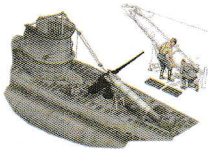
**N72005 (1/72)**  
Officers' Ward Room and Galley



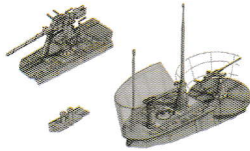
**N72003 (1/72)**  
U-boat VII Engine section



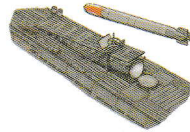
**N72009 (1/72)**  
U-boat VII Winch for loading torpedoes



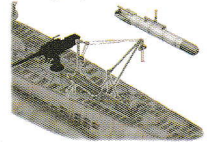
**N72004 (1/72)**  
U-boat VII Exterior set Part I - Turret



**N72008 (1/72)**  
U-boat VII Winding platform (2 chute version)



**N72007 (1/72)**  
U-boat VII Winch for loading torpedoes on sea



### FIGURES & OTHER ACCESSORIES FOR SUBMARINES AND SHIPS

**F72160**  
German deck crew  
Schnellboot S-100 (3 figures)  
**1/72**  
scale



**F72132**  
U-VII armament crew In port  
3 figures  
**1/72**  
scale



**F72127**  
U-VII crew at rest - part II  
(3 figures)  
**1/72**  
scale



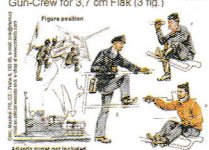
**F72168**  
Flying bridge crew  
Schnellboot S-100 (3 figures)  
**1/72**  
scale



**F72248**  
U-boat U-IX - Crew returning  
from a cruise part. I (3 fig) for Revell kit  
**1/72**  
scale



**F72185**  
U-VII Atlantic version  
Gun-Crew for 3,7 cm Flak (3 fig.)  
**1/72**  
scale



**F72131**  
U-VII 88 mm cannon crew  
in action 3 figures  
**1/72**  
scale



**F72184**  
U-VII Atlantic version  
Gun-Crew for 2 cm Flak (3 fig)  
**1/72**  
scale



**F72118**  
U-VII crew at rest - part I  
(3 figures)  
**1/72**  
scale



**F72133**  
U-VII crew on sentry  
3 figures  
**1/72**  
scale



**F72250**  
U-boat U-IX - Crew in Raincoats  
(3 fig) for Revell kit  
**1/72**  
scale



**F72116**  
U-VII crew (guard with binoculars)  
(3 figures)  
**1/72**  
scale



**F72128**  
Proviant set for field  
kitchen  
**1/72**  
scale



**F72249**  
U-boat U-IX - Crew returning  
from a cruise part. II (3 fig) for Revell kit  
**1/72**  
scale



**F72117**  
U-VII crew (proviant)  
(3 figures)  
**1/72**  
scale



**ML80290**  
**1/72**  
scale

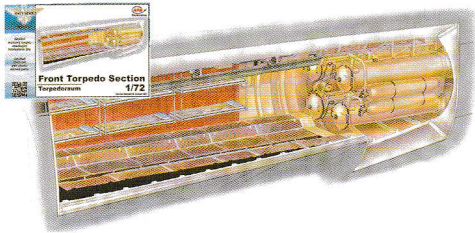
**COMMAND BOAT-LAUNCH**  
(Kommandantenboot)





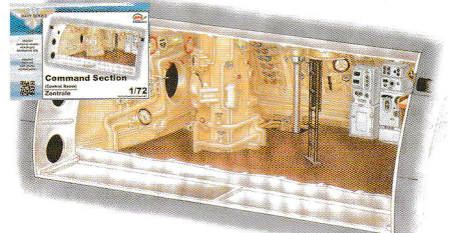
### THE BEST RESIN SETS FOR THE TYP IXC SUBMARINE (1/72 REVELL KIT)

#### N72011 – U-Boot typ IX Front Torpedo Section



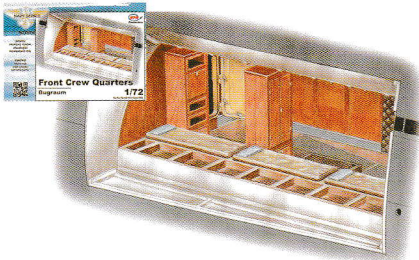
This highly detailed set covers the front torpedo section with crew bunks. The set contains 2 torpedoes, 6 hammocks, 4 closed torpedo tubes, 2 watertight bulkheads, torpedo loading shaft with watertight hatch and floor. This set is intended for the new Revell 1/72 scale U-boat typ IXC.

#### N72014 – U-Boot typ IX Command Section (Control room)



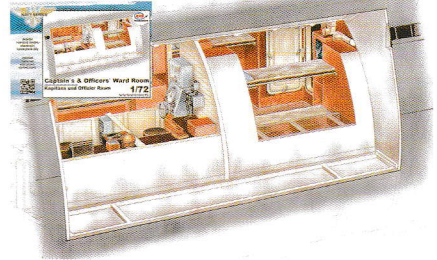
This highly detailed set covers the submarine's command section, the heart of the submarine. The set contains 2 watertight bulkheads with sealed doors, floor, ladder to the coning tower with watertight hatch, lower part of the periscope, controls for diving planes and powerplant. This set is intended for the new Revell 1/72 scale U-boat typ IXC.

#### N72015 – U-Boot typ IX Front Crew Quarters



This highly detailed set covers the front crew quarters section. The set contains 3 bunks, personal lockers, watertight bulkhead with sealed doors, watertight bulkhead with manhole hatch and floor. This set is intended for the new Revell 1/72 scale U-boat typ IXC.

#### N72016 – U-Boot typ IX Captain's & Officers' Ward Rooms



This highly detailed set covers the Captain's and officers' ward rooms. The set contains 3 ward rooms, 5 bunks, personal lockers and tables, watertight bulkhead with sealed door, bulkhead between particular ward rooms, watertight bulkhead with manhole hatch, operation room with sonar and radios and floor. This set is intended for the new Revell 1/72 scale U-boat typ IXC.

#### N72022 – U-Boot typ IX Galley



This highly detailed set covers the submarine's galley. The set contains 2 watertight bulkheads with sealed doors, floor, ladder to the upper manhole with watertight hatch, stove, sink, fridge with compressor and vents, all necessary for the kitchen operation during the cruises. This set is intended for the new Revell 1/72 scale U-boat typ IXC.

#### List of resin kits for U-Boot typ IX (Revell kit)

- N72010 – U-Boot IX Opened Front and Rear Torpedo Muzzle Doors \*
- N72011 – U-Boot IX Front Torpedo Section
- N72012 – U-Boot IX Rear Torpedo Section & Crew bunks
- N72013 – U-Boot IX Exterior Set Part I \*
- N72014 – U-Boot IX Command Section (Control room)
- N72015 – U-Boot IX Front Crew Quarters
- N72016 – U-Boot IX Captain's & Officers' Ward Rooms
- N72017 – U-Boot IX Engine section for REV
- N72018 – U-Boot IX Weapon Set – Single 37 mm & 2 twin 20 mm AA cannons
- N72019 – U-Boot IX Torpedo Loading Cart on Sea \*
- N72020 – U-Boot IX Weapon Conversion set - new 105mm cannon and Flak Vierling (4x20 mm)
- N72021 – U-Boot IX Exterior Set Part II \*
- N72022 – U-Boot IX Galley
- N72023 – U-Boot IX Flak Vierling 20mm (4x20mm) \*

\*Coming soon