

Survey report

Wreck W30: Artillery training ship Carl Zeiss

Position:

Baltic Sea - Lithuania, Klaipeda

Survey date:

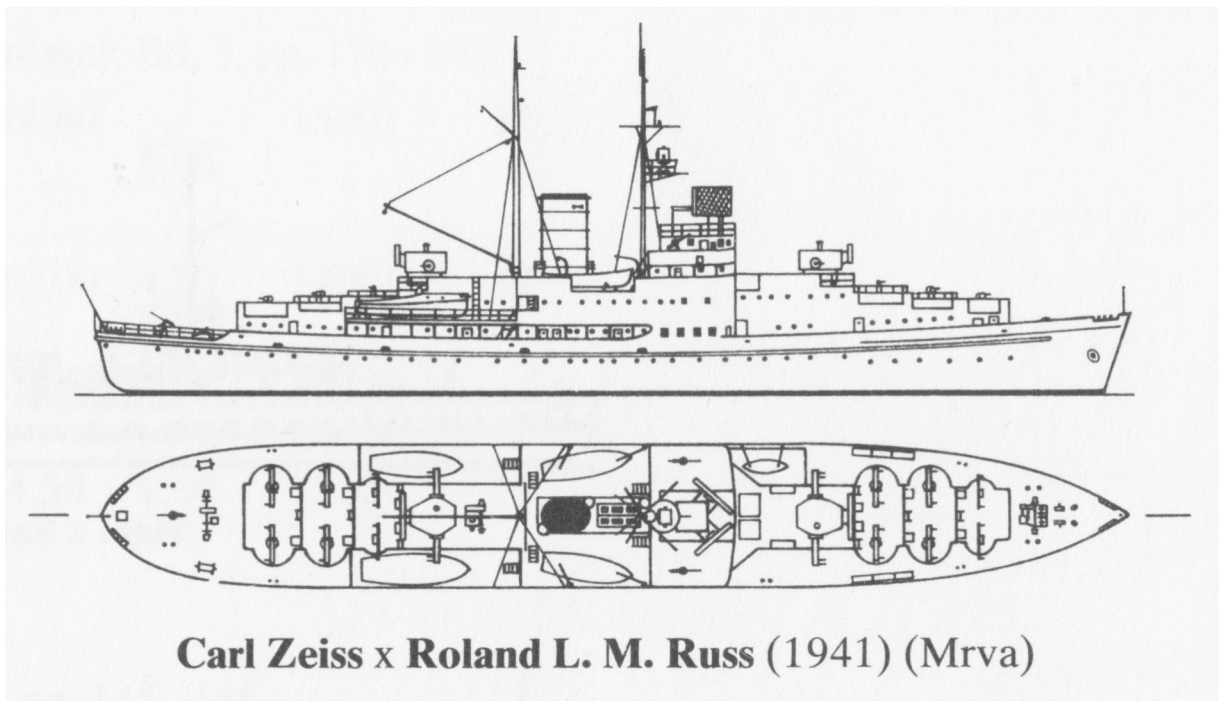
Aug. 28th 2021

Author:

Holger Buss

Version:

Okt. 8th 2021



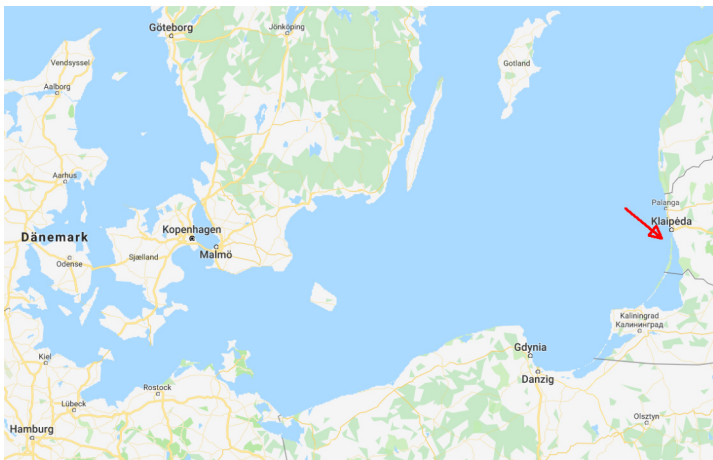
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Introduction

This survey report describes a shipwreck in the Baltic sea. It is about a 80m long steel ship with a central diesel engine. It lies in 12-22m water depth close to the harbor Klaipeda / Lithuania. The wreck was examined and 3D-documented during a project week of The Baltic Sea Heritage Rescue Project in 2021. All details were compared to information and photos of an artillery training ship that sank Nov. 10th 1944 (during the second world war) in that area. All details of the wreck, as well as its position leave no doubt that it was the vessel "Carl Zeiss" ex. "Roland L.M. Russ".

Position

55°45'N 021°01'E Lithuania- Klaipeda (Memel) In approx. 1 km distance to the coast



Description of the wreck

It is a steel ship with a length of around 80m above all. It lies about 90 degrees capsized on the port side on sandy ground. The original shape of the hull can still be seen clearly. The bridge or the structure are partially broken off. The propeller and steering blade are in good condition. In the middle the hull of the ship is damaged over a range of 9m. We found a water connector hole with a German inscription: "Frischwasser" - freshwater and other plates in German Language. The stern part of the deck is wood covered. The middle part of the ship is badly damaged and it looks like it was hit by a big ship when it was already a wreck.

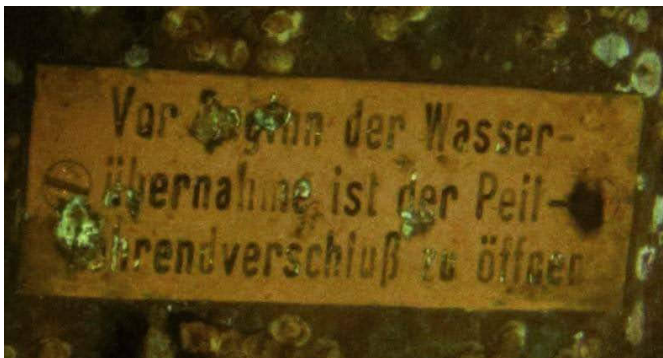


Photo: Baltic sea heritage rescue project

The Baltic Sea Heritage Rescue Project

The Baltic Sea Heritage Rescue Project is an organization in which people from many countries volunteer for protection of the Baltic Sea. They find and remove lost ghost nets, search, identify and document wrecks to protect them and keep their stories alive. It finances itself through donations and public funds. As a registered and recognized non-profit organization, donation receipts may be issued. The Baltic Sea Heritage Rescue Project works closely with the University of Klaipėda and relevant ministries and archaeologists as well as the museum.



Due to the depth of the wrecks, only so-called technical divers are used who dive with helium mixtures at depth and increased levels of oxygen in the decompression phase.

The Baltic Sea Heritage Rescue Project is a non-profit organization founded in July 2018 in Klaipėda, Lithuania by Rolandas Schön, Sabine Kerkau and Linas Duoblys. In 2021 three project weeks took place.

<https://www.bshrp.org>

In addition, the following aspects are examined:

- Is the wreck looted or damaged by third parties?
- How is the wreck changing over the years?
- How can the wreck be protected in terms of robbery and damage

Diving protocols:

28.08.2021 65min

Divers: Holger Buss, Dr. Andreas Küver, Andrey Govorov, Markus Amann

Ship: NZ55 Kpt: Linas Duoblys

First survey of the ship and 3D-Capturing



Eckhard Becker, Andrey Govorov, Linas Duoblys, Markus Amann, Holger Buss, Dr. Andreas Küver

BRITISH CROWN Wreck Information

Wreck Number State = LIVE32147

Classification: Unclassified

Date Last Amended: 13/06/2017

Wreck Category: Dangerous wreck

WGS84 Position Latitude = 55°44,91'N Longitude = 21°01,26'O

Depth 11 m Water Depth 19 m

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Surveying Details

- ** H2428/75 6.7.81 WK 11.7MTRS AMENDED TO WK 11.6MTRS. (USSR NM 3327/81).
- ** H2428/75 7.7.81 WK AMENDMENT CANCELLED. (USSR NM 3744/81).
- ** 23.6.83 WK 11.7MTRS SHOWN IN 554456N, 210124E ON USSR 456. NC 2276.
- ** 2.5.87 SHOWN AS WK 11.6MTRS ON USSR 456 [1987 EDN]. BR STD.
- ** 14.7.00 NOT SHOWN ON RUSSIAN 22055 [1996 EDN].
- ** SEP 2015/000225792 4.12.15 SHOWN AS WK 11MTRS IN 5544.913N, 2101.270E [WGD]
- ** SEP 2016/000104179 10.5.16 HISTORIC WK SW 11MTRS (REST'D ZONE 200MTRS RADIUS)
- ** SEP 2016/000106758 13.6.16 SHOWN AS WK 11MTRS(HISTORIC) IN 5544.910N, 2101.260 ON LT562510. (EDN 7.1, DTD 22.4.16). AMEND DW 11MTRS (HISTORIC).

Source: <https://wrecksite.eu/wreck.aspx?91834>

The ship Carl Zeiss



Pictures: Fotowelt-Berlin

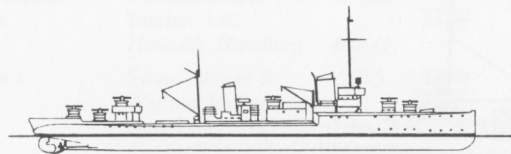
The German motorship Carl Zeiss was built as Roland L.M.Russ on the Lübecker Flender-Werke A.G., Lübeck (Luebeck). She was taken over by the German Navy and renamed to Carl Zeiss. It was mined 9-11-1942 near Sassitz. She was raised and taken in tow to Dünamünde to be used as a blockship. On Oct 14th 1944 she sprang a leak and sank near Klaipeda.

tonnage:	1320 grt
Dimensions:	78,5 x 12,1 x 4,2
Material:	steel
Motor:	Oil engine - Krupp-Germania 6zyl 4-Takt
Screws:	1 screw with 2,70m diameter
Speed:	13 knots
Builder:	Lübecker Flender-Werke A.G., Lübeck (Luebeck)
Owner:	German Navy (Kriegsmarine) 1935-1945
People:	88 persons plus 158 trainees
Guns:	Drei 3,7 cm-Flak L/83 C 30 in Ubootlafette C 37.

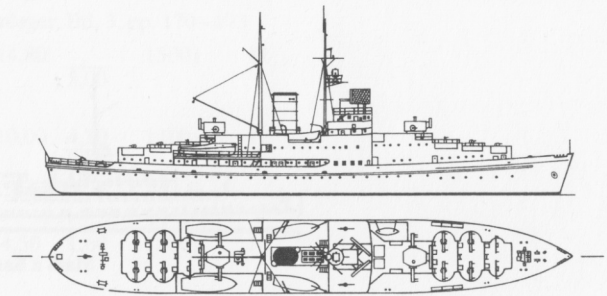
Source: <https://wrecksite.eu/wreck.aspx?31478>

Details by Erich Gröner

Carl Zeiss (29.11.38) 15.4.39 *M/B Roland L. M. Russ* (Russ); 4.39 Ankauf durch KM, 1939–41 *Umbau zum Emeß-Schulschiff*; 28.2.41 i.D. **Carl Zeiss**; 17.3.41 endgültige Abnahme; 9.11.42 † 19^h32 ~ Sassnitz / , auf Grund gesetzt; †, 10.10.44 Wrack vorgesehen als Blockschiff Dünamünde, bei Überführung 14.10.44 7^h00 † ~ Memel: 55°45 n/21°01 o / im Schlepp leckgesprungen.



Eduard Jungmann x T 153 (1939)

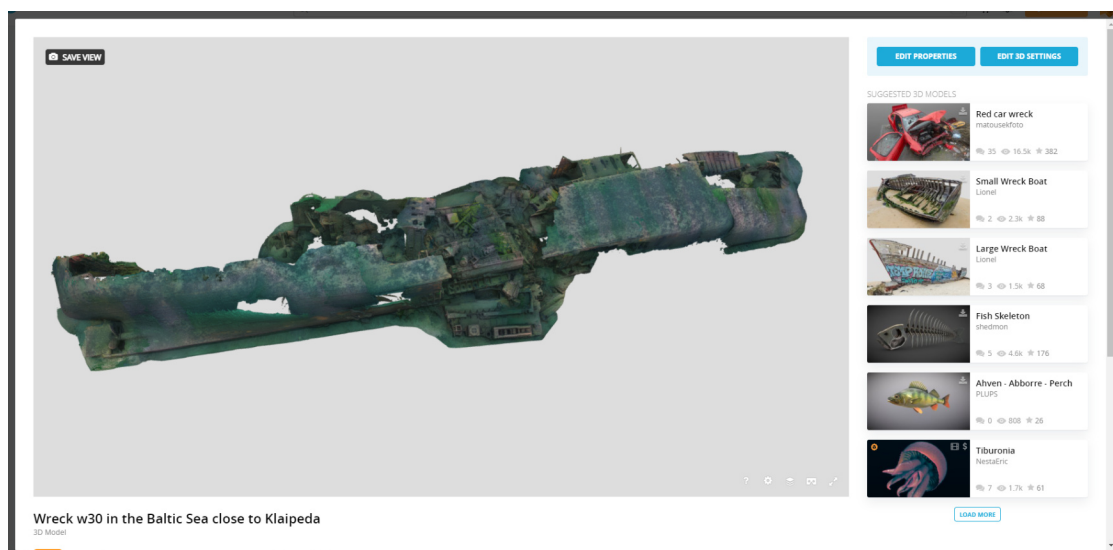


Carl Zeiss x Roland L. M. Russ (1941) (Mrva)

Name	Schiffstyp u. -art / Seitenhöhe	Antrieb	Ausrüstung, Bewaffnung	Seeausdauer	Stammbesatzung + Schüler
Carl Zeiss x Roland L. M. Russ	M/B 2 Decks (VI) / 7,30 m	1 Krupp-Germania 6zyl. 4takt-DM (1 ⌀ 2,70 m Ø)	2 BG – 8,00 m 8 BG – 3,50 m 4 BG – 3,00 m 3 ⚡ – 3,7	 sm/13 kn bei ... t Öl	1,87 + 19,139

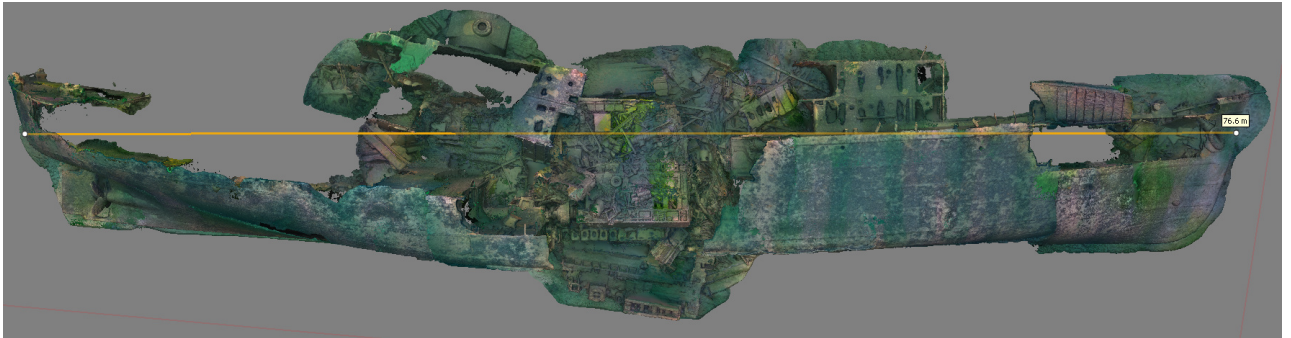
3D Model

The 3D model was created by video capturing of one dive. 19000 Pictures from still frames and rendered by [Agisoft Metashape](#)



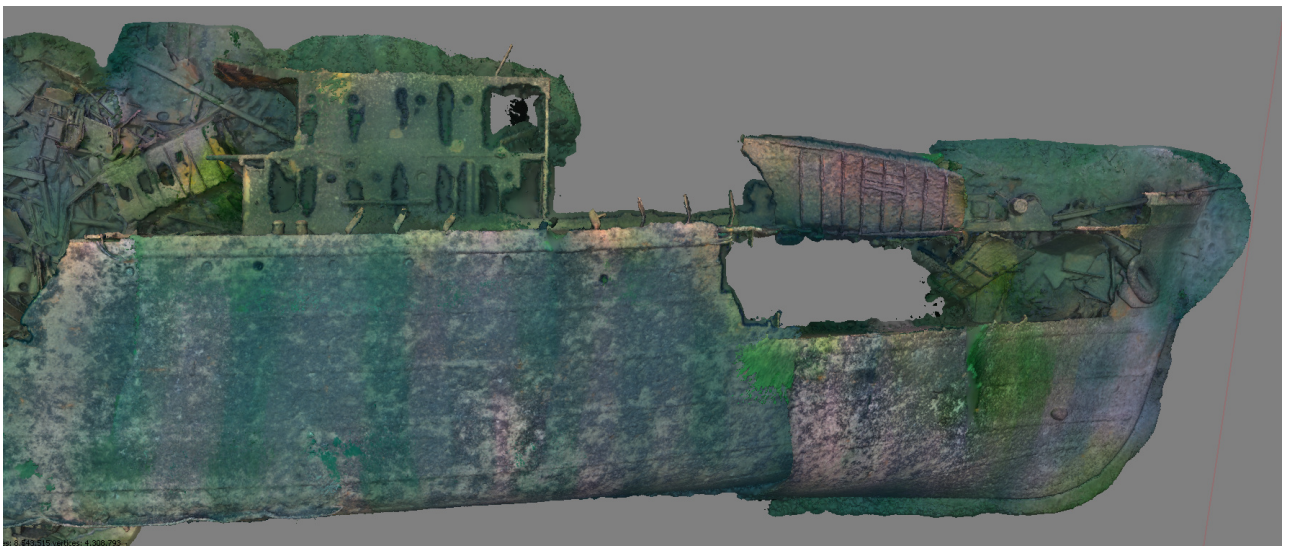
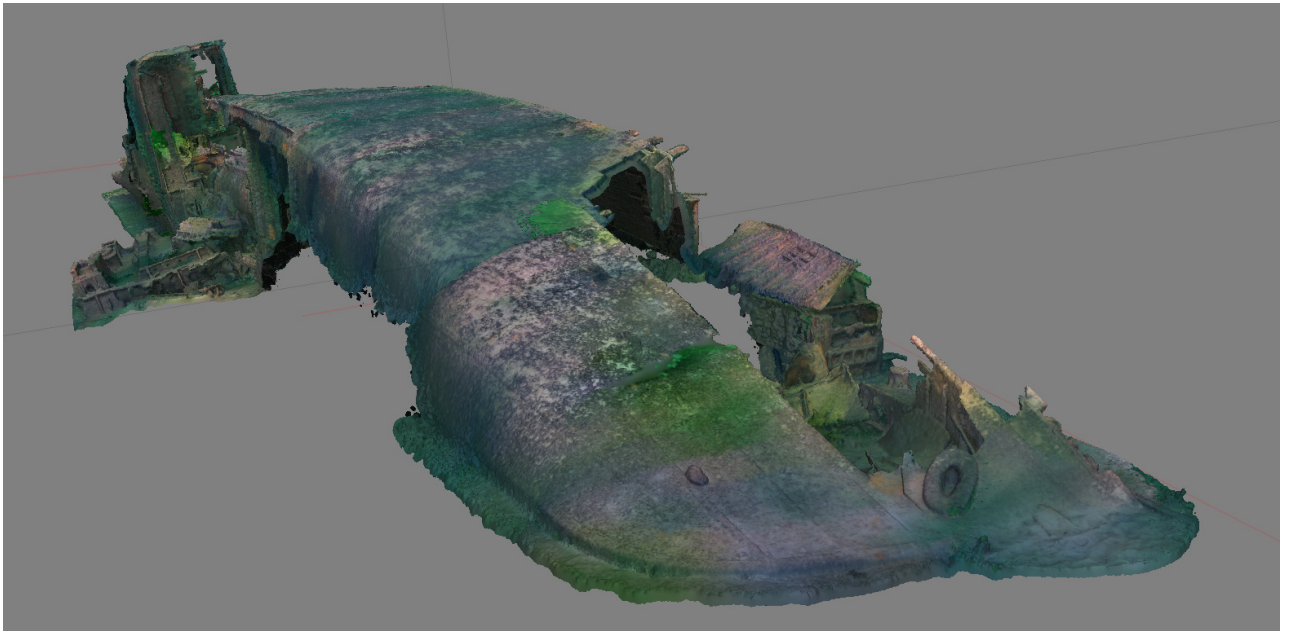
Click [Here](#): to see the model online at sketchfab: <https://skfb.ly/opPXl>

Top view

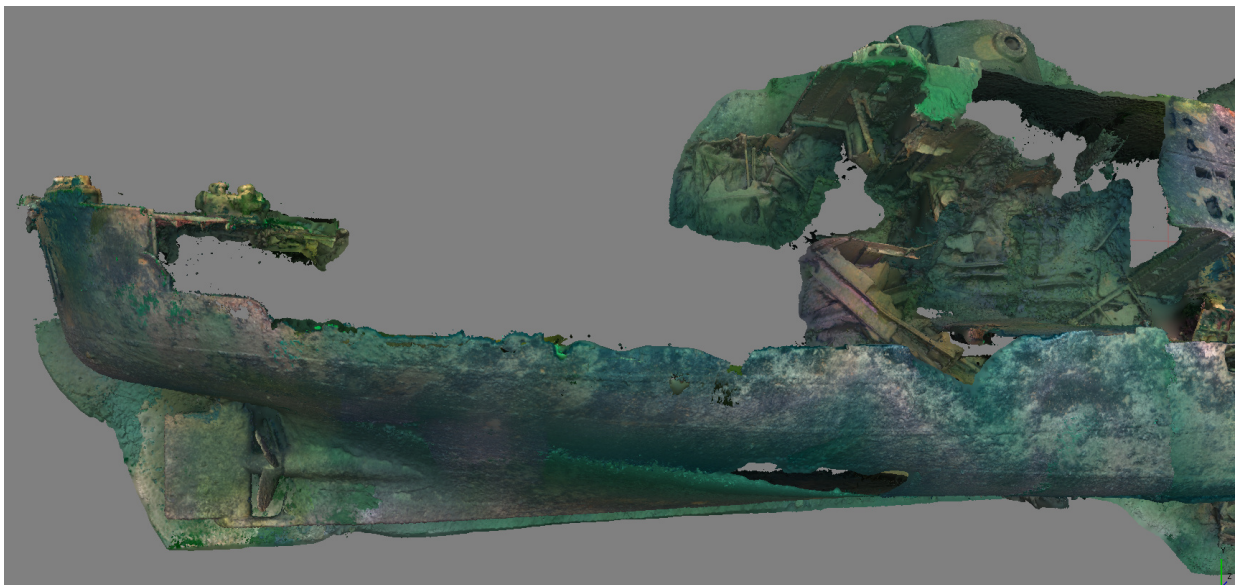
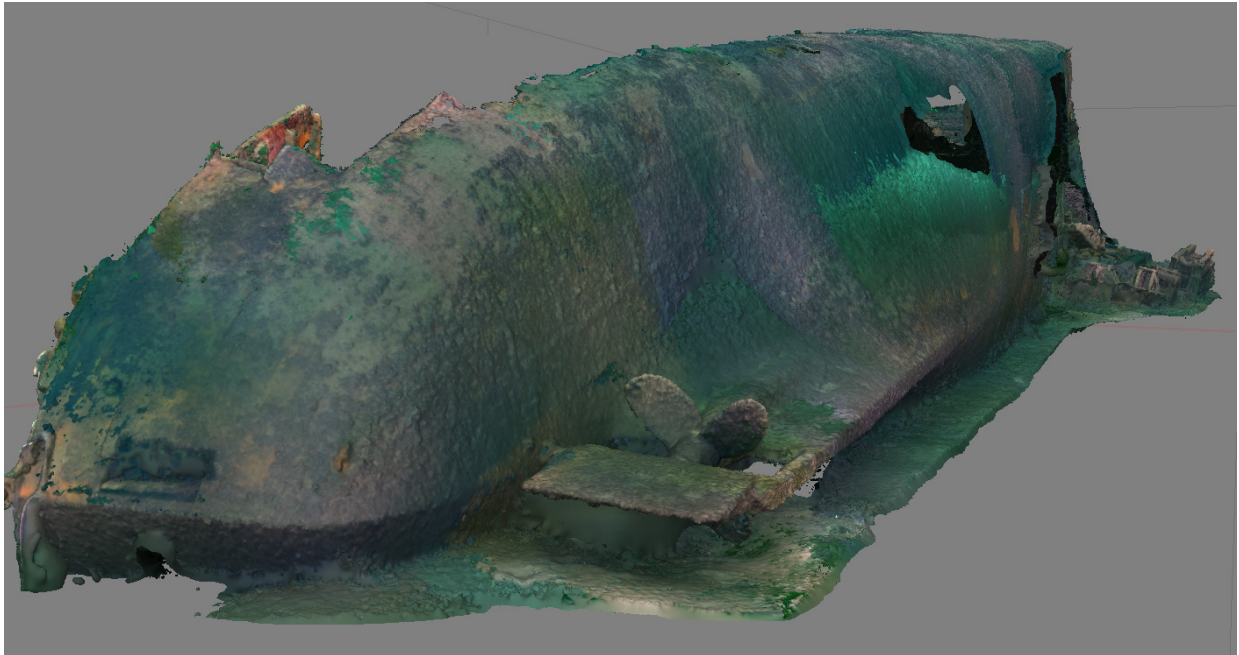


Side view of the ship (Top view of the wreck site)

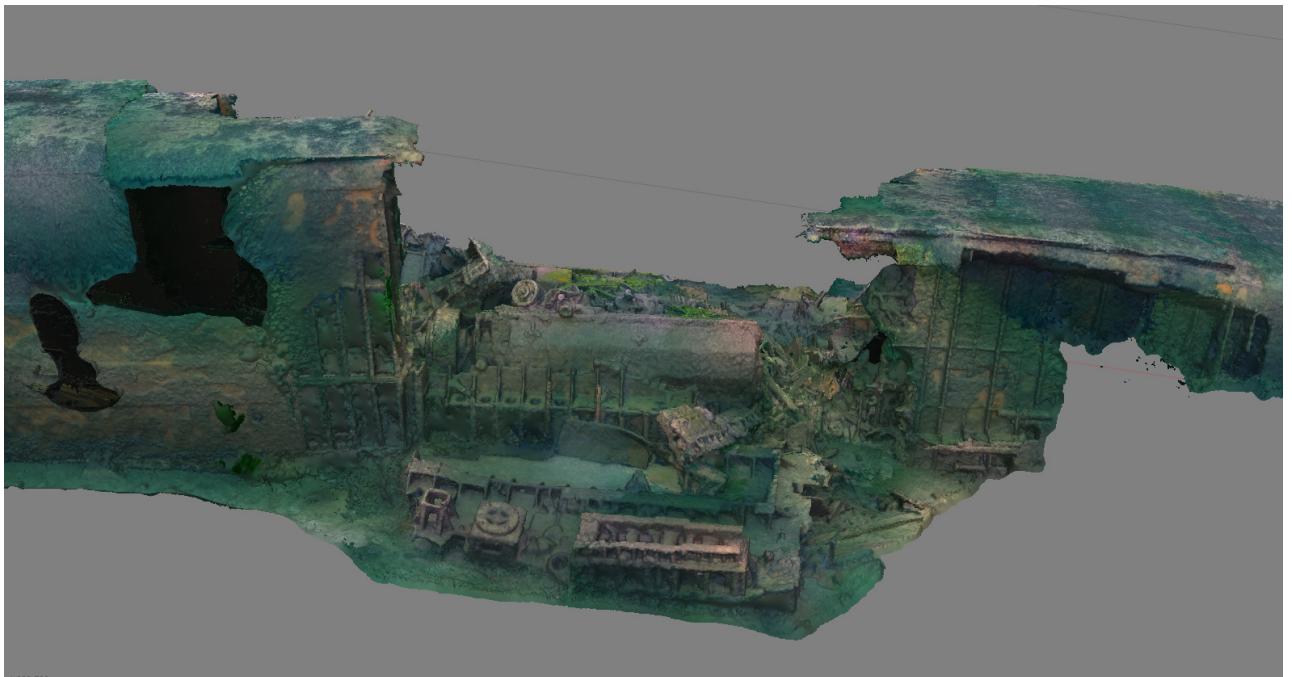
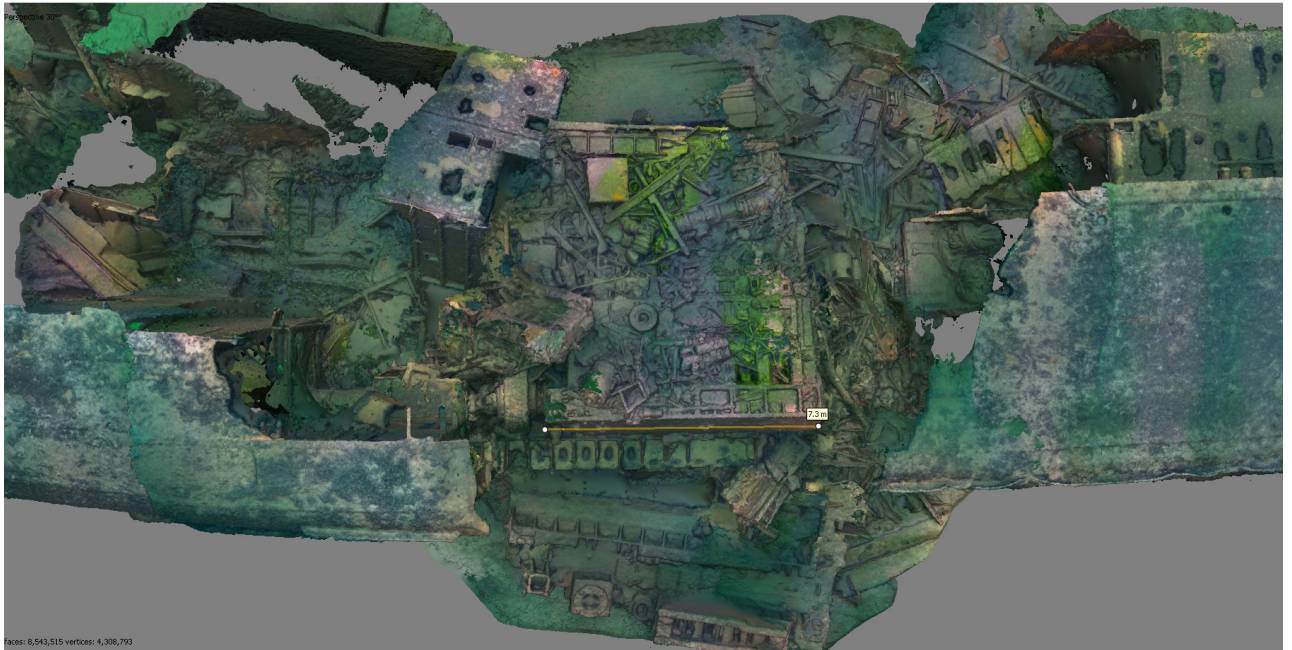
Bow Section



Stern Section

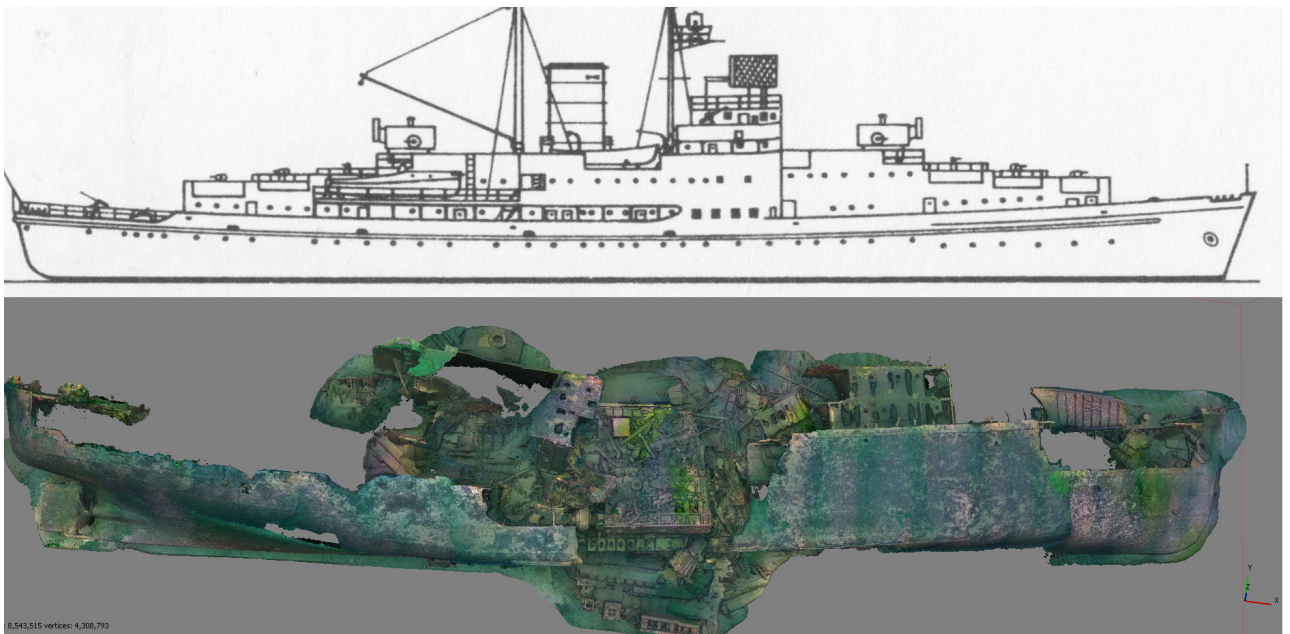
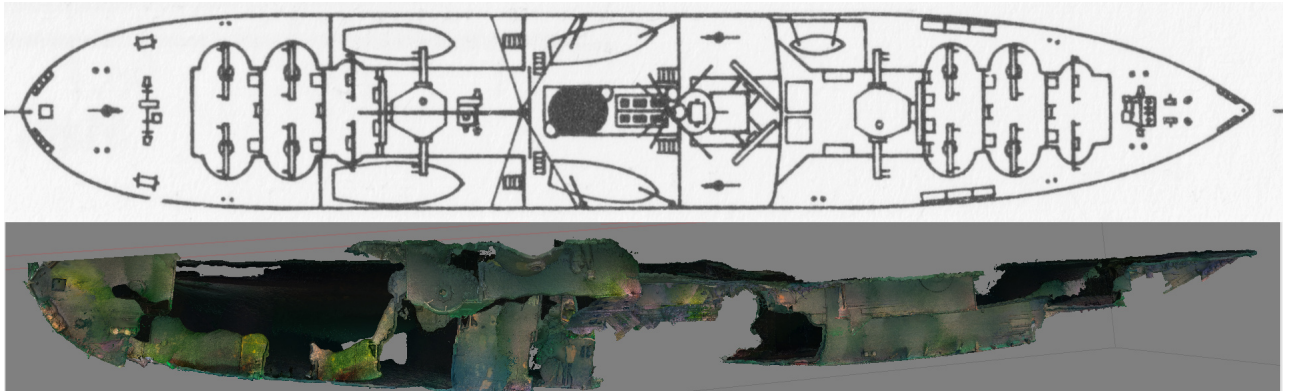


Middle section (Machine)

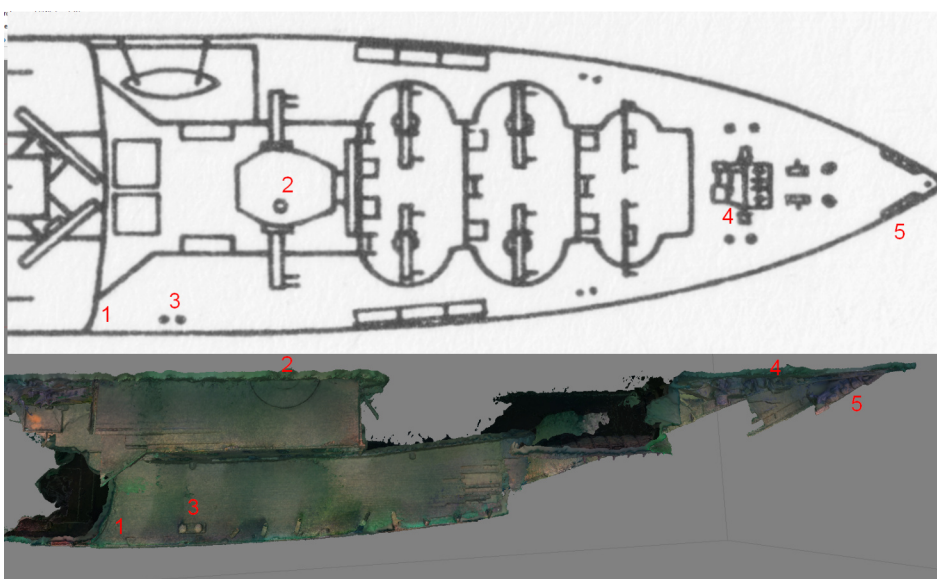
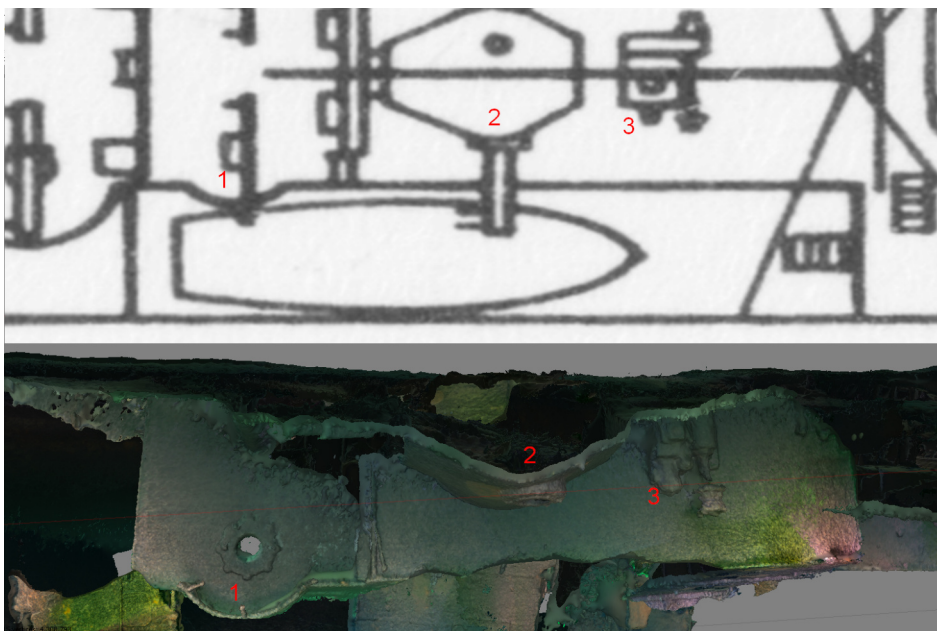
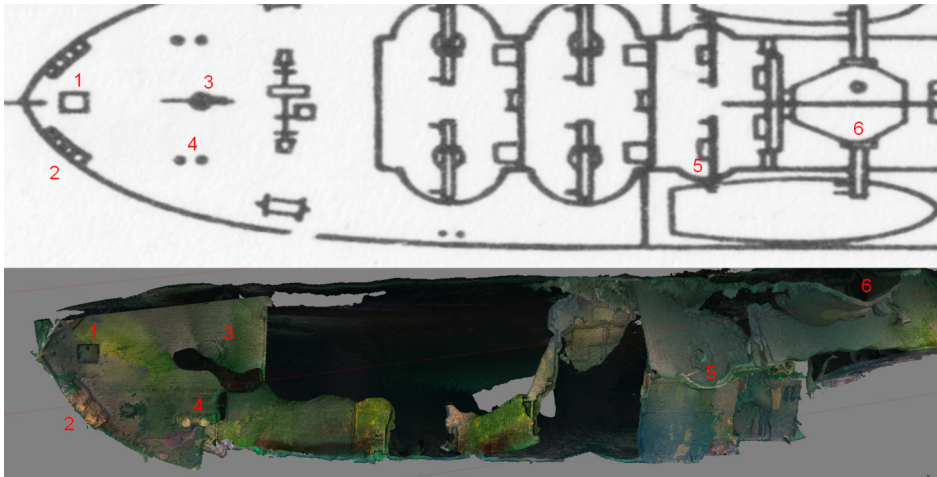


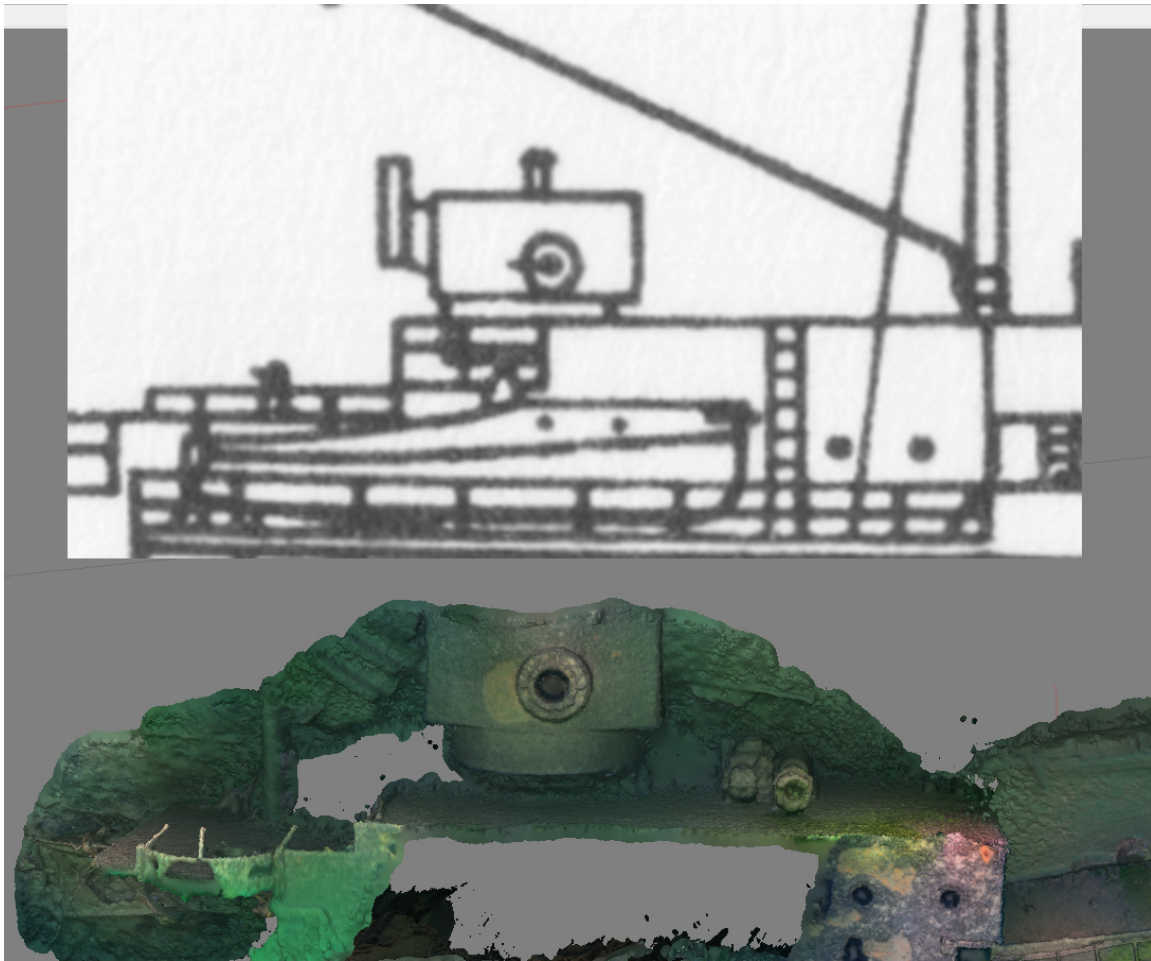
The wreck is badly damaged in the middle. It lies in shallow water and it seems that it was hit by a bigger ship when it was already wrecked.

Comparison of the wreck with the ship sketches of Carl Zeiss

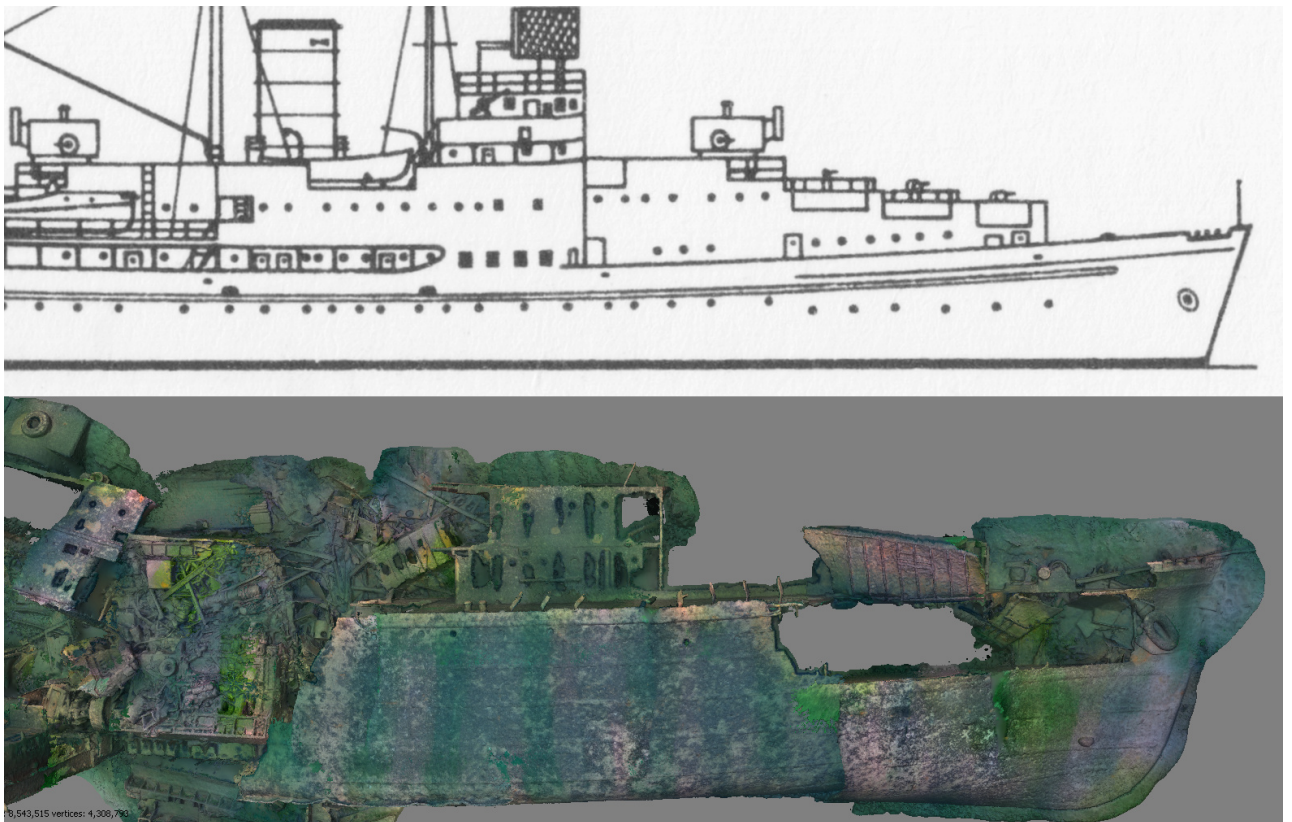


Detail comparison deck



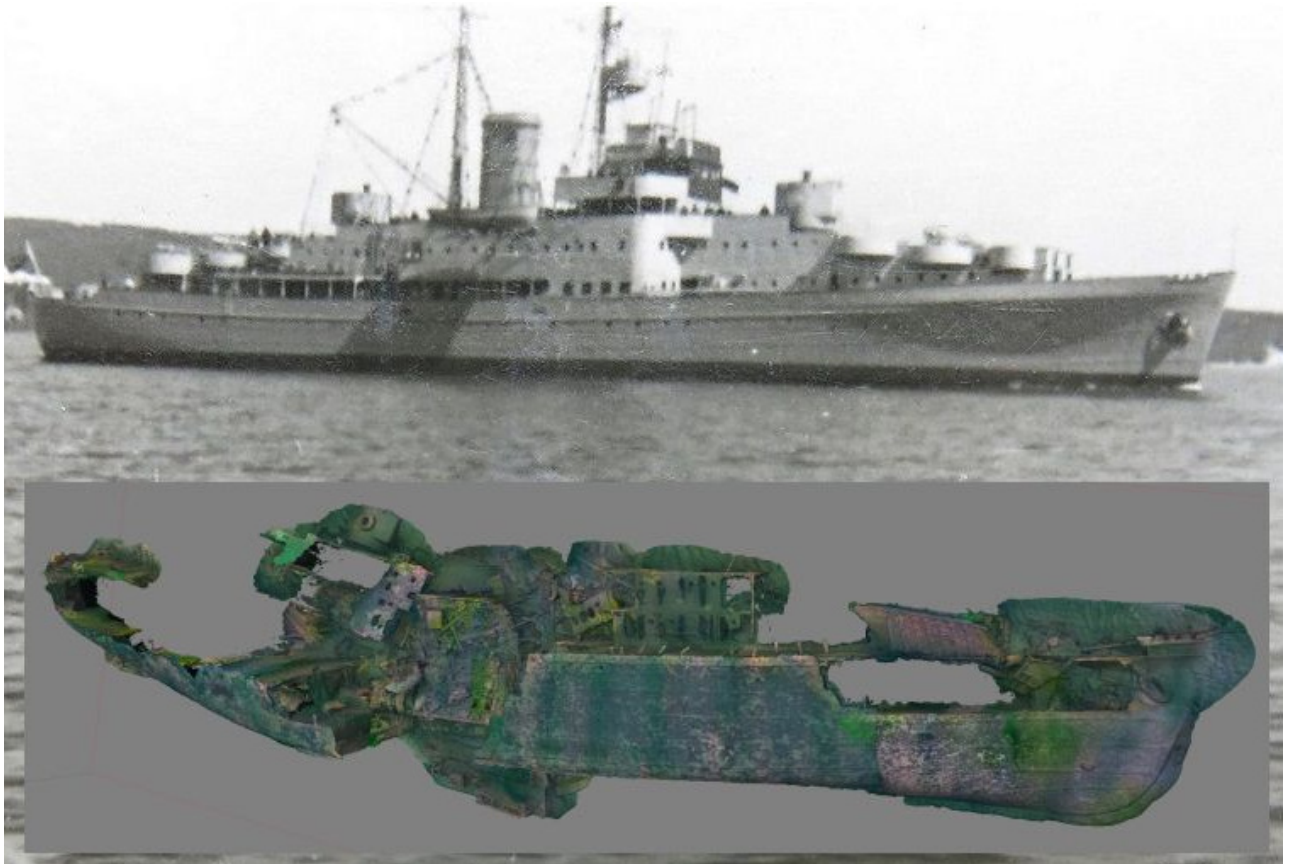


Distance measuring instrument



Side view bow section

Comparison Wreck vs. historical pictures



Source of the historical picture: Marine-Forum.de



Source of the historical picture: historical-media.com

Bow section

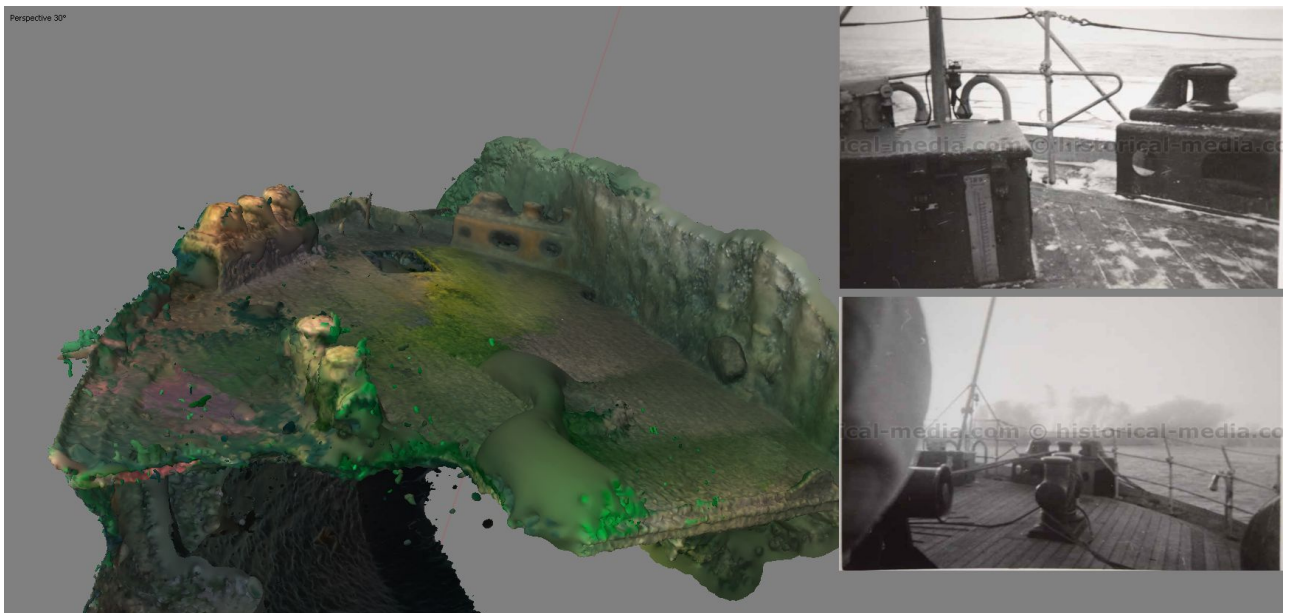


Source of the historical picture: historical-media.com

Stern section



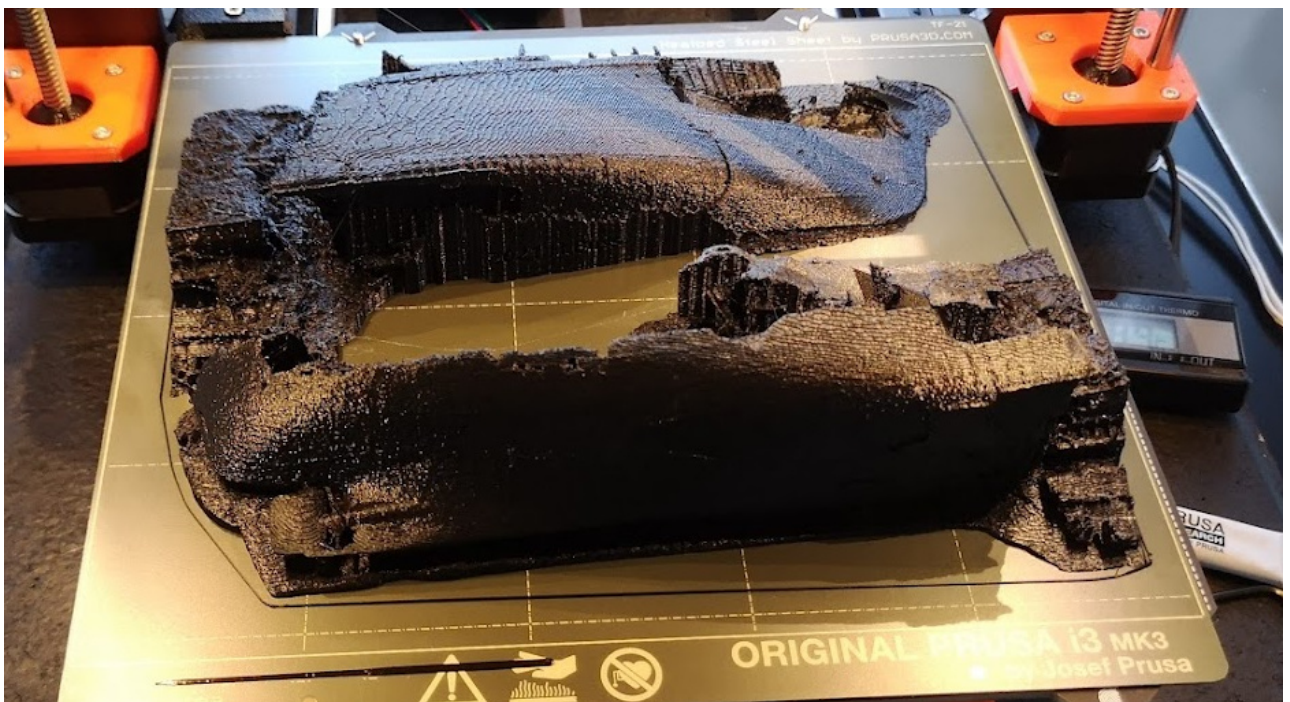
Source of the historical picture: fotowelt-berlin



Source of the historical picture: historical-media.com

3D printed model

The 3D scan was prepared for 3D-Printing and printed on a Prusa MK3i





Photos & Model: Holger Buss

Collectable Ship's model of Carl Zeiss

This ship was available as a collectable ship's model from the manufacturer "Star". They are scaled 1/1250 and made from metal.

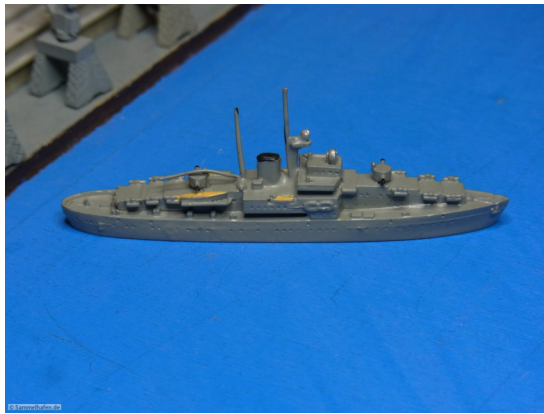
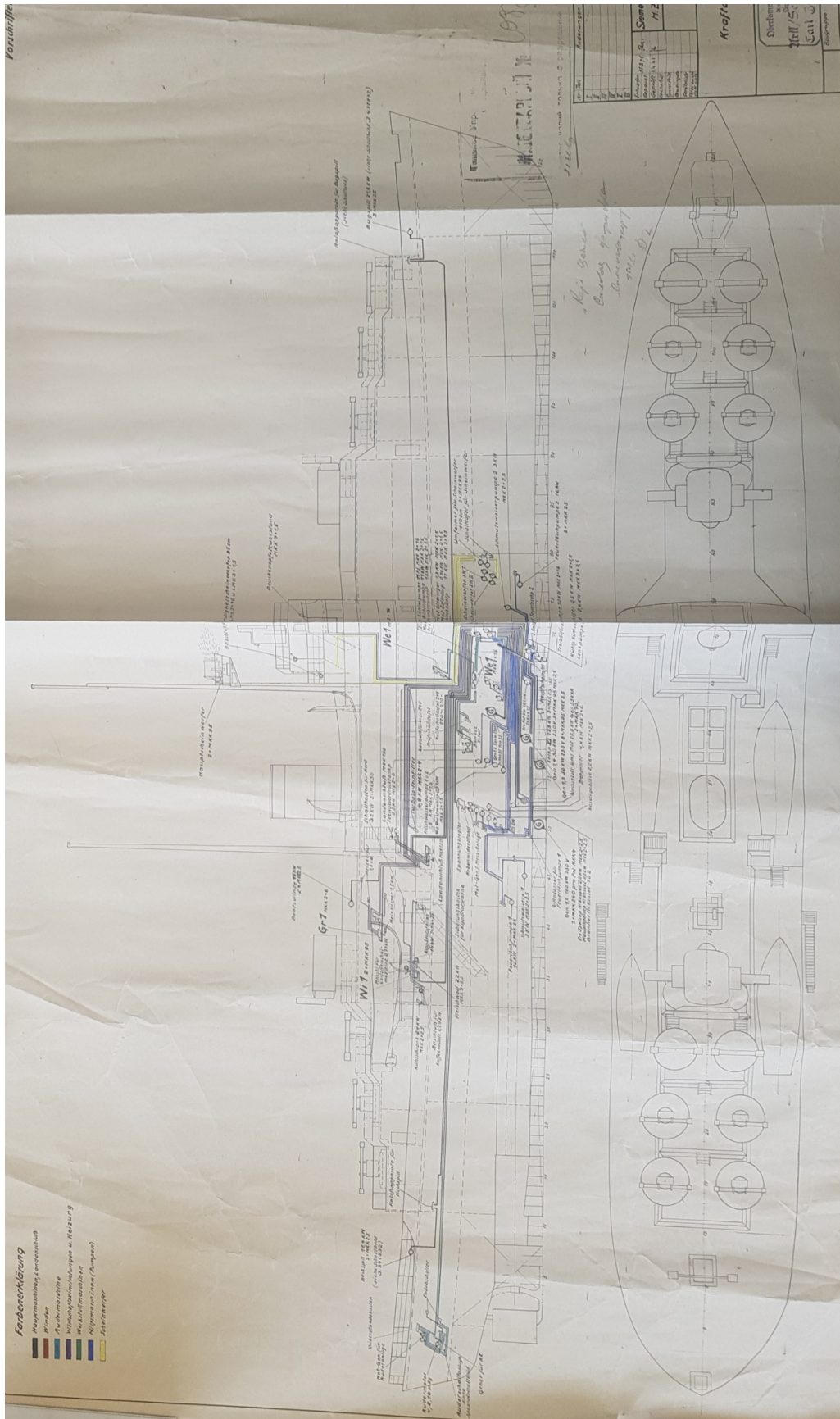
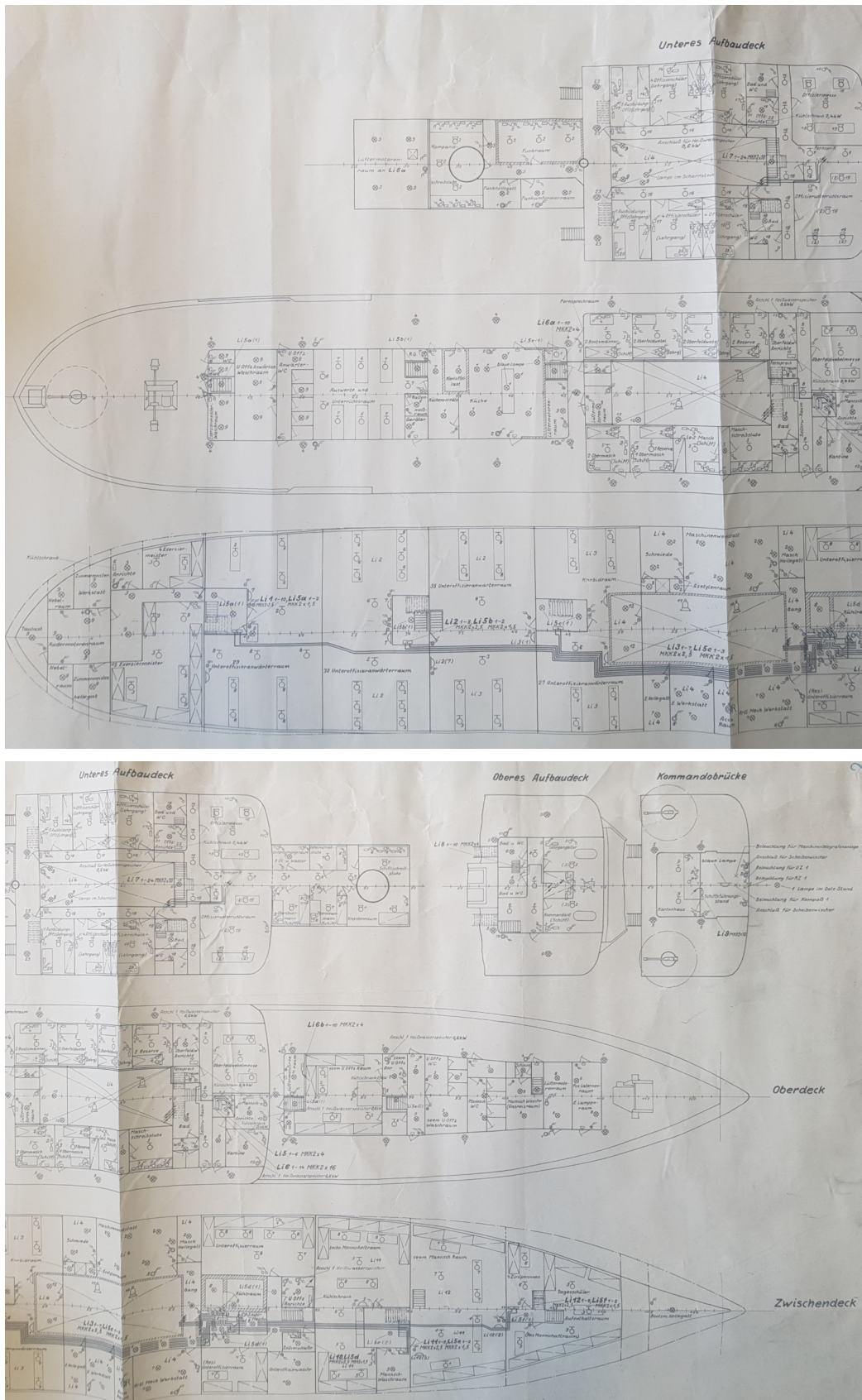


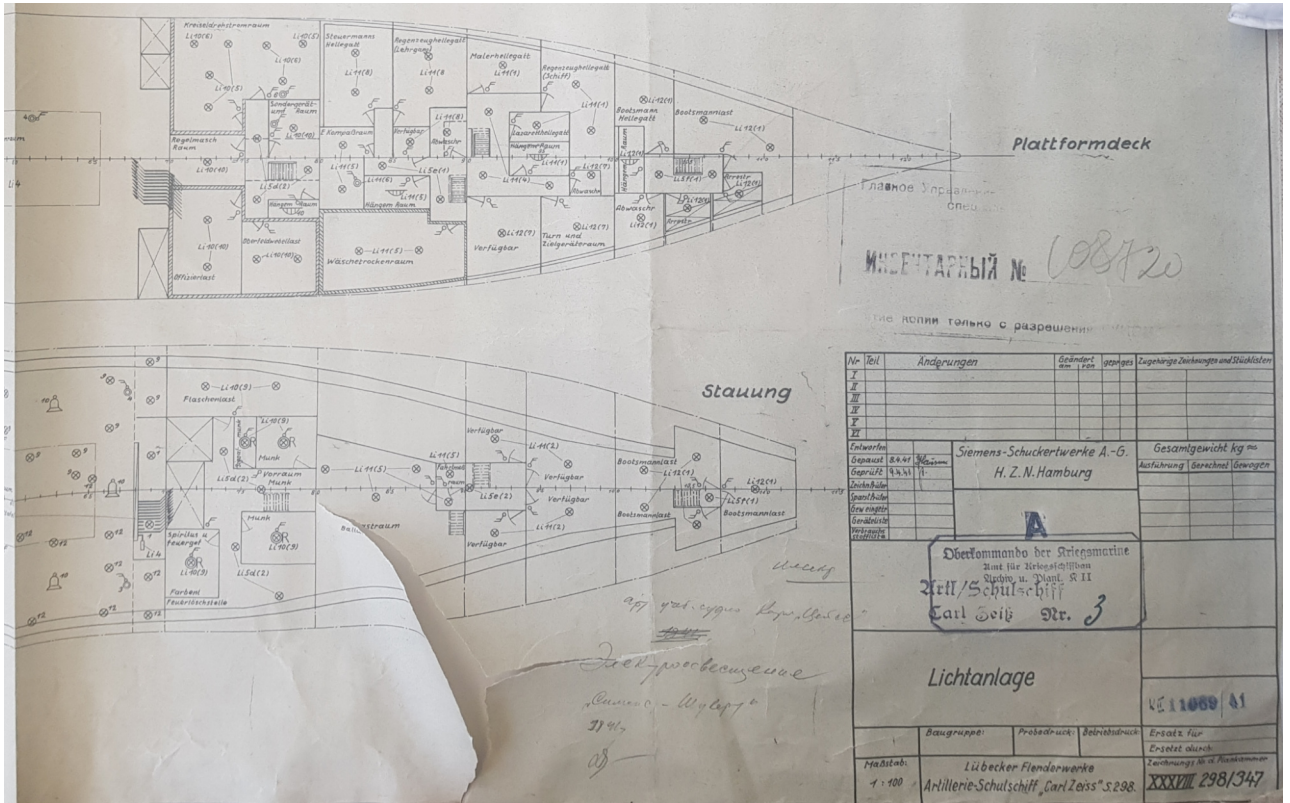
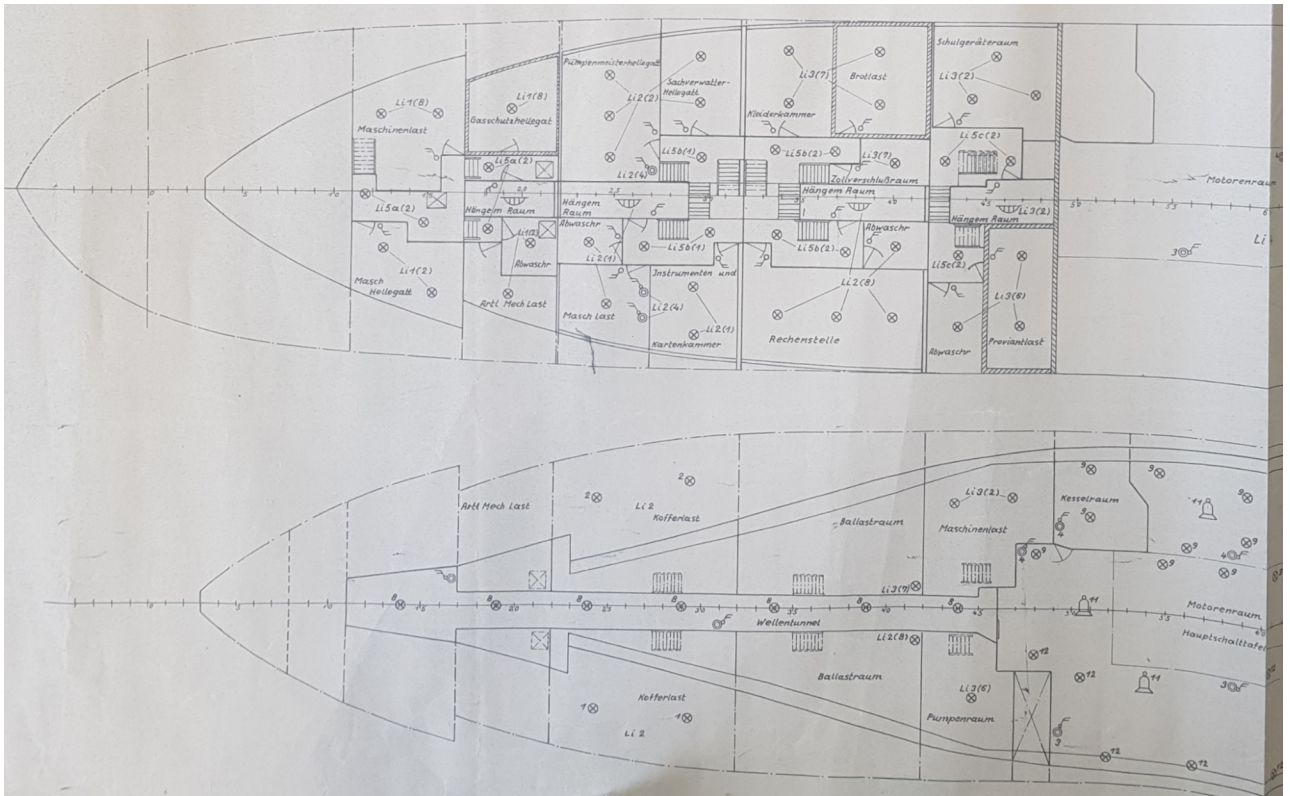
Foto: Sammelhafen.de

Original Drawings





Source: Militärarchiv Freiburg: RM 25 7635



Source: Militärarchiv Freiburg: RM 25 7636

Deutsche Zusammenfassung

Dieser Bericht beschreibt ein Schiffswrack in der Ostsee. Es handelt sich um ein 80m langes Stahlschiff mit einem zentralen Dieselmotor. Es liegt in 12-22m Wassertiefe in der Nähe des Hafens Klaipeda / Litauen. Es wurde während einer Projektwoche des Baltic Sea Heritage Rescue Project im Jahr 2021 untersucht und 3D-dokumentiert. Alle Details wurden mit Informationen und Fotos eines Artillerieschulschiffs verglichen, das am 10 November 1944 (während des zweiten Weltkriegs) in diesem Gebiet sank. Alle Details des Wracks sowie seine Position lassen keinen Zweifel, dass es sich um das Schiff „Carl Zeiss“ ex. "Roland L. M. Russ" handelt.

E-Meßschulschiff CARL ZEISS



Das E-Meßschulschiff CARL ZEISS. Im Vorschiff gut erkennbar sind die gestaffelt angeordneten E-Meßstände.

Im April 1939 kaufte die Kriegsmarine das 1320 BRT-Frachtmotorschiff ROLAND L.M.RUSS. Dieses war 1938 bei den Lübecker Flenderwerken begonnen worden, kam am 29. November 1938 zu Wasser und wurde am 15. April 1939 an den Auftraggeber - (Reederei Ernst Russ, Hamburg) - abgeliefert, aber nicht mehr in Betrieb genommen. 1938-41 erfolgte der Umbau zum E-Meßschulschiff CARL ZEISS, die Indienststellung konnte - durch den Kriegsbeginn verzögert - erst am 28. Februar 1941 vollzogen werden, die endgültige Abnahme am 17. März 1941. Zur Durchführung seiner Aufgaben erhielt das Schiff vierzehn E-Meßgeräte (zwei zu je 8 m in Hauben, die übrigen - acht zu je 3,50 m und vier zu je 3 m - freistehend) sowie vier Funkmeßortungsgeräte. Am 9. November 1942 lief das Schiff in der Nähe von Saßnitz auf eine Mine. Um sein Sinken zu verhindern, wurde es auf einer nahen Untiefe auf Grund gesetzt. Später ist es schwimmfähig gemacht worden, im Oktober 1944 war es als Blockschiff für Dünamünde vorgesehen. Beim Abschleppen nach dort sprang es am 14. Oktober 1944 nordöstlich Polangen leck und ging unter. Seinen Namen hatte dieses Schiff nach dem Optiker und Gründer der Jenaer Zeiss-Werke.

Source:

Marine-Arsenal Band 30: Siegfried Breyer, Spezial- und Sonderschiffe der Kriegsmarine (I)

Author



Holger Buß is a graduate engineer in electrical engineering and develops control systems for unmanned aerial vehicles. He is diving since 1999, is certified with TEC1 (GUE) and is also a volunteer rescue diver at the DLRG. Together with the "Gezeitentaucher" (tide divers) and the team "Baltic Sea Heritage Rescue Project" he investigates shipwrecks off the East Frisian Islands and in the Baltic Sea.

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Version

Latest version of this report here:

[http://files.mikrokoetter.de/Gezeitentaucher/\(EN\)_W30_CarlZeiss.pdf](http://files.mikrokoetter.de/Gezeitentaucher/(EN)_W30_CarlZeiss.pdf)