



Bundesstelle für Seeunfalluntersuchung
Federal Bureau of Maritime Casualty Investigation

Interim Investigation Report No. 380/22

Very serious marine casualty

**Fatal occupational accident on board the bulk carrier
PETER OLDENDORFF in the port of Mukran
on 3 August 2022**

2 August 2023

Pursuant to the second sentence of Article 28(1) of the Law to improve safety of shipping by investigating marine casualties and other incidents (Maritime Safety Investigation Law – SUG) in conjunction with the second sentence of Article 14(2) of Directive 2009/18/EC of the European Parliament and of the Council of 23 April 2009 establishing the fundamental principles governing the investigation of accidents in the maritime transport sector, the Federal Bureau of Maritime Casualty Investigation publishes an interim investigation report within a period of 12 months of a very serious or serious marine casualty if it is not possible to complete the corresponding investigation report within that period.

This interim investigation report should not be used in court proceedings or proceedings of the Maritime Board. Reference is made to Article 34(4) SUG.

The German text shall prevail in the interpretation of this interim investigation report.

Issued by:
Bundesstelle für Seeunfalluntersuchung (BSU)
Federal Bureau of Marine Casualty Investigation
Bernhard-Nocht-Str. 78
20359 Hamburg
Germany



Director: Ulf Kaspera
Tel.: +49 40 3190 8300
posteingang@bsu-bund.de

Fax: +49 40 3190 8340
www.bsu-bund.de

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1 FACTUAL INFORMATION

1.1 Photograph of the ship



Figure 1: Bulk carrier PETER OLDENDORFF¹

1.2 Ship's particulars

Name of ship:	PETER OLDENDORFF
Type of ship:	Bulk carrier
Flag:	Liberia
Port of registry:	Monrovia
IMO-number:	9464663
Call sign:	D5QR7
Owner (acc.to Equasis):	OLDENDORFF CARRIERS GMBH & CO, Lübeck
Shipping company (ISM):	SYNERGY MARINE GERMANY GMBH, Hamburg
Year built:	2012
Shipyard:	New Century Shipbuilding Co Ltd - Jingjiang JS
Construction number:	111507
Classification society:	Lloyd's Register
Length overall:	255.25 m
Breadth overall:	43.00 m
Draught (max):	14.50 m
Gross tonnage:	63,993
Deadweight:	114,840 t
Engine rating:	13,560 kW
Main engine:	DOOSAN-MAN-B&W 6S60MC-C Mk 7
Speed:	14.5 kn
Hull material:	Stahl
Mindestbesatzung:	13

¹ Source: Hasenpusch Photo-Productions.

1.3 Voyage particulars

Port of departure:	Mukran (Germany)
Port of call:	Ust-Luga (Russian Federation)
Type of voyage:	Merchant shipping International
Cargo information:	Black coal
Manning:	24
Pilot on board:	No
Number of passengers:	None

1.4 Marine casualty information

Type of marine casualty:	Very serious marine casualty, fatal occupational accident
Date/Time:	03/08/2022 about 0900 ²
Location:	Port of Mukran
Latitude/Longitude:	$\varphi = 54^{\circ}29.1'N$, $\lambda = 13^{\circ}35.4'E$
Voyage segment:	Moored at the berth
Place on board:	Aft ship, steering gear room
Human factor:	Yes
Consequences:	Death of a crewmember

Section from navigational chart SASSNITZ, DE1515 (INT 13450), BSH³

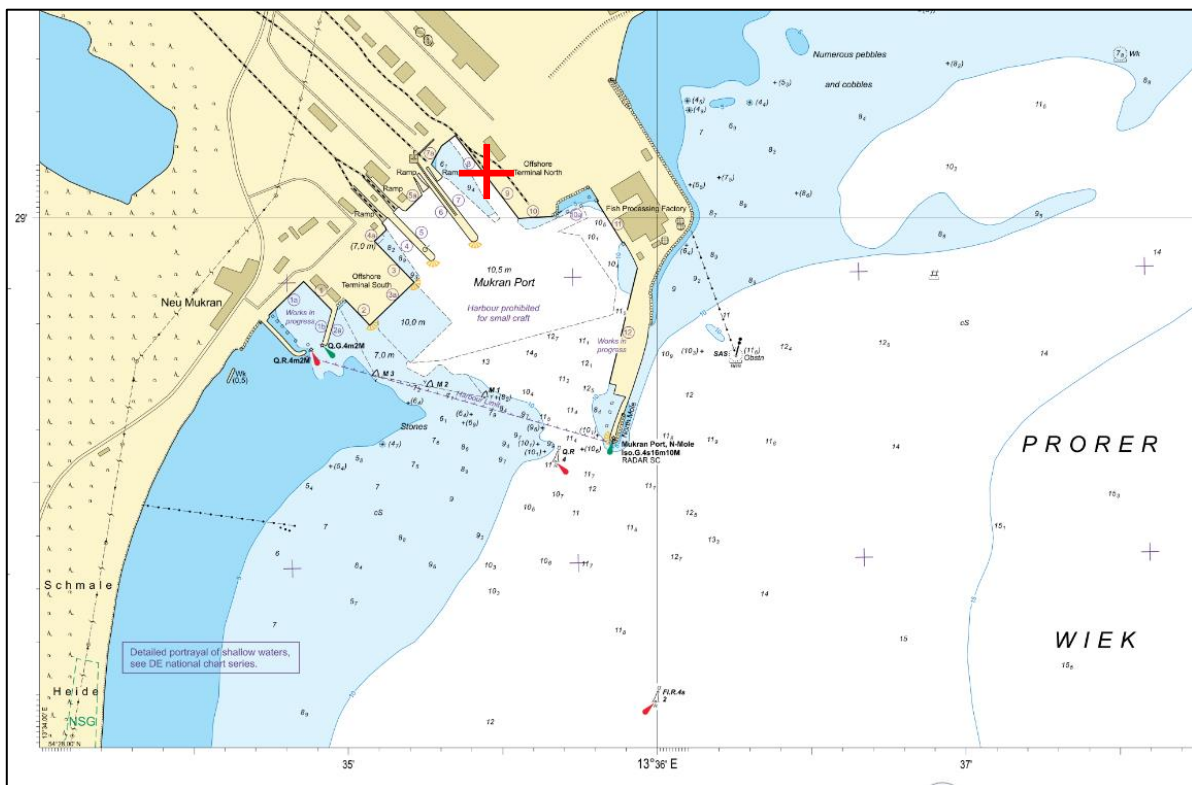


Figure 2: Scene of the accident

² All times stated in the report are CEST = UTC + 2 hours; precise time of accident unknown.

³ BSH = Federal Maritime and Hydrographic Agency.

1.5 Shore authority involvement and emergency response

Agencies involved: Emergency medical services
Waterway Police Inspection (WSPI) Sassnitz

Resources used: Emergency physician, ambulance

Action taken: First aid administered by ship's crew, Medical assistance by emergency physician

2 SUMMARY

On the morning of 3 August 2022, a fatal occupational accident occurred on board the Liberian-registered bulk carrier PETER OLDENDORFF, moored for cargo operations at her berth in the port of Mukran.

The accident victim was a 33-year-old Indian trainee (trained as a fitter) who was part of the ship's crew and working on day duty. Shortly after the start of work at around 8:10 a.m., he was assigned to carry out welding work in the ship's steering gear room in the morning. Specifically, the task was to cut out the necessary material from a rectangular steel plate (dimensions approx. 300 cm x 130 cm x 1 cm; mass approx. 300 kg) for the purpose of producing a work piece.

The required steel plate was located in a vertically "stacked" plate stock in a corner of the steering gear room (cf. regarding the location of the stack the red marking in the upper right corner of **Fig. 3**).



Figure 3: Steering gear room (Site of the steel plates marked red)

The pile consisting of differently dimensioned plates is secured against tipping over in a height of about 80 cm by a steel cross strut (L-section). The cross strut is held at both ends by a threaded rod and locked by nuts (see white and red markings in **Fig. 4**).



Figure 4: Stack of plates⁴ secured by a steel cross strut

The trainee needed the support of members of the deck crew to handle the very heavy and unwieldy plates and, in particular, to remove a plate from the plate supply. However, the designated crew members initially had other work to do. The trainee's first task was therefore to prepare the tools required for the welding job. For the further work steps, he was to wait for the help of his colleagues.

Shortly after 1000, the Trainee Marine Engineer (TME)⁵ went to the steering gear room for a technical check and discovered the trainee fitter pinned between the overturned stack of plates and a shelf mounted on the ship's side in the area of the upper body. He immediately tried to help the unresponsive colleague, but was unable to move the steel plates without further assistance. He therefore rushed to the engine control room and informed the three crew members present there. Together, they immediately went to the accident site. With their combined efforts, they succeeded in freeing the accident victim from his predicament at around 1003. The rescuers then immediately began resuscitation measures (cardiac massage, mouth-to-mouth resuscitation).

⁴ Note: The black and yellow rope visible in the photo was tensioned during the reconstruction of the accident and is not normally part of the plate safety system.

⁵ TME = A crew member in training to become a ship's engineer.

Meanwhile, at about 1004, the general alarm had been triggered in order to inform the crew about the emergency and involve them in the rescue activities according to their role. In the course of these measures, which the master coordinated after his arrival at the scene of the accident, medical supplies and a stretcher were brought to the scene of the accident. With the help of these, the serious injured accident victim was transported to the main aft deck of the ship, where the resuscitation measures were continued until the arrival of the emergency physician. The emergency physician arrived at 1018 at the scene of the accident. But despite all efforts, he was unable to save the life of the welding trainee. At 1030, the casualty was pronounced dead without regaining consciousness.

The Federal Bureau of Maritime Casualty Investigation (BSU) was notified of the accident by the Waterway Police a few hours after the accident was discovered. A team of investigators boarded the ship the following day. There, together with the accident investigator responsible for the ship's Flag State, documents were viewed and witnesses questioned. During the inspection of the accident site, the accident sequence, for which there are no direct witnesses, was reconstructed with the aid of a dummy (cf. Fig. 5).



Figure 5: Reconstruction of the accident with a dummy

It became clear that, after the cross strut securing the stack of plates had been released, the stack could tip sideways with great force in a flash and without any particular cause. A person standing between the stack and the shelf mounted on the ship's side at the time in question will inevitably be trapped between the tilted plates and the shelf. Due to the great weight of each individual plate, there is subsequently hardly any realistic possibility for the accident victim to free himself from the situation described with his own strength or even to call for help with any prospect of success, insofar as he has not already lost consciousness or suffered fatal injuries as a result of the massive crushing.

The investigation into the accident has been largely completed in the meantime. The BSU is currently in the process of preparing the investigation report. Since it has not been possible to adhere to the time limit of one year, as set for its publication by the European Union and transposed into national law by the Federal Republic of Germany, the public is informed on the progress of the investigation by means of this interim report.