



Bundesstelle für Seeunfalluntersuchung
Federal Bureau of Maritime Casualty Investigation
Federal Higher Authority subordinated to the Ministry
of Transport and Digital Infrastructure

Interim Investigation Report
on Marine Casualty 405/18

**Destruction of the main engine's turbocharger
and subsequent fire
in the engine room of the BALTIC BREEZE
in the North Sea
on 14 October 2018**

22 October 2019

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 Act – SUG) in conjunction with the second sentence of Article 14(2) sentence 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 (BSU) publishes an interim 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 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 report.

Issued by:
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1 FACTUAL INFORMATION

1.1 Photograph of the ship



Figure 1: Photograph of the BALTIC BREEZE

1.2 Ship particulars

Name of ship:	BALTIC BREEZE
Type of ship:	Car carrier
Flag:	Singapore
Port of registry:	Singapore
IMO number:	8312590
Call sign:	9VRQ
Owner:	Wallenius Lines Singapore
Operator:	Wallenius Marine Singapore
Charterer:	United European Car Carriers
Year built:	1983
Shipyard:	Kurushima Dockyard Co. Ltd. – Onishi Yard
Classification society:	Lloyds Register
Length overall:	164.01 m
Breadth overall:	28.00 m
Draught (max.):	9.91 m
Gross tonnage:	29,979
Deadweight:	12,466 t
Engine rating:	7,943 kW
Main engine:	Mitsubishi, 1 x 6UEC60HA
(Service) Speed:	18 kts
Hull material:	Steel
Hull design:	Double bottom
Minimum safe manning:	12

1.3 Voyage particulars

Port of departure:	Drammen, Norway
Port of call:	Cuxhaven, Germany
Type of voyage:	Merchant shipping/international
Cargo information:	Heavy goods vehicle
Manning:	22
Draught at time of accident:	$D_f = 5.70\text{ m}$, $D_a = 6.50\text{ m}$
Pilot on board:	No
Canal helmsman:	No
Number of passengers:	None

1.4 Marine casualty or incident information

Type of marine casualty:	Serious marine casualty – destruction of turbocharger and subsequent fire in engine room
Date, time:	14/10/2018, 0150
Location:	North Sea, German Bight, near buoy E3
Latitude/Longitude:	$\phi 54^\circ 03.7'N$ $\lambda 007^\circ 52.0'E$
Ship operation and voyage segment:	High seas
Place on board:	Engine room
Human factors:	No
Consequences:	Destruction of turbocharger; heavy fire damage in engine room

Extract from Navigational Chart 87,
Federal Maritime and Hydrographic Agency (BSH)

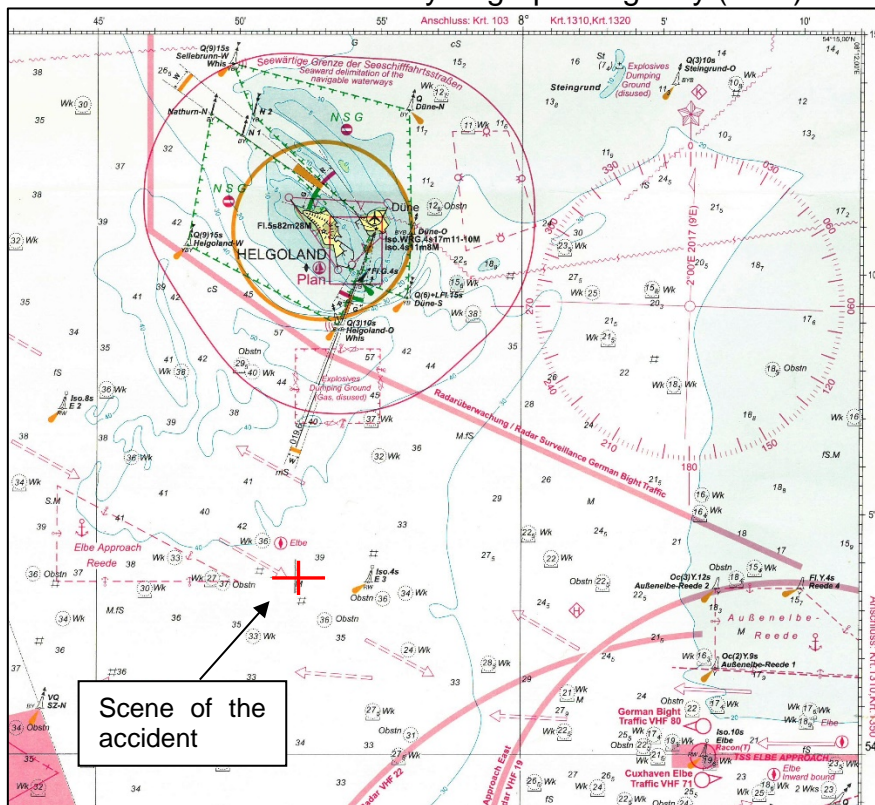


Figure 2: Scene of the accident

1.5 Shore authority involvement and emergency response

Agencies involved:	Vessel Traffic Service (VTS) German Bight, Central Command for Maritime Emergencies (CCME), German Federal Police (BPOL), Waterway Police (WSP) Schleswig-Holstein, WSP Station Cuxhaven, Cuxhaven Fire Service
Resources used:	BPOL boat BAD BRAMSTEDT and boarding team, BPOL helicopter, coastal patrol boats HELGOLAND and BÜRGERMEISTER BRAUER, water pollution control vessel MELLUM, firefighting unit (FFU) from Cuxhaven Fire Service
Actions taken:	Crew succeeds in extinguishing the fire, ship anchors near buoy E3, BPOL boarding team carries out preliminary investigations on board the BALTIC BREEZE, MELLUM takes measurements of temperature on shell plating, CCME assumes overall command of the operation, FFU transported to ship by helicopter, master of ship orders necessary tugs, ship towed to and moored in Cuxhaven, WSP and BSU commence investigations

2 SUMMARY

On 14 October 2018, the Singapore-flagged BALTIC BREEZE was en route from Drammen to Cuxhaven. The ship was approaching the pilot boarding point for the Elbe. For this reason, her speed was reduced at about 0145 using the main engine's automatic control system. About two minutes after the speed reduction had been initiated, the second engineer heard two short pump strokes from the main engine's turbocharger. He noticed a fire in the engine room in the area of this turbocharger immediately afterwards. He then triggered the HI-FOG fire extinguishing system for this area and left the engine room unharmed. The second crew member working in the engine room at the time also left the engine room unharmed. The firefighting measures initiated by the crew succeeded quickly and the fire was extinguished.

The fire was caused by the destruction of the turbocharger due to mechanical damage, resulting in large components on the compressor side becoming loose. During the explosive disintegration, a large amount of oil leaked from the turbocharger housing, which then ignited.

Due to the damage to the turbocharger and the fire, the ship lost propulsion. Consequently, the ship's command dropped anchor near buoy E3 at about 0330.

The master notified VTS German Bight of the fire in the engine room at 0200. The VTS forwarded this information to the competent bodies. The CCME assumed overall control of the operation at 0520. The first group from the FFU from Cuxhaven Fire Service sent to the ship by the CCME was set down on the BALTIC BREEZE from 0706 onwards. The FFU's on-scene investigation confirmed the fire was extinguished.

The first of the tugs ordered by the Shipping Administration with sufficient bollard pull reached the BALTIC BREEZE at 1235. The smaller tugs previously ordered were stood down after the arrival of the second large tug at 1400. The towing operation started at 1800 and ended when the ship made fast at 0024 on 15 October 2018.

The BSU started its investigation on board the ship on 15 October 2018. An expert was called in for the technical investigation and participated in the first inspection of the engine room. At the request of the BSU, the components of the turbocharger were removed from the engine room and transported to a workshop certified by the manufacturer, where they were dismantled further, for the expert's detailed technical investigation. The opinion on the destruction of the turbocharger prepared by the expert has been provided to the BSU.

Since it has not been possible to adhere to the time limit of one year for publishing an investigation report set 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 way of the publication of this interim report.