



Bundesstelle für Seeunfalluntersuchung
Federal Bureau of Maritime Casualty Investigation

Interim Investigation Report 192/23

Serious marine casualty

**Allision with a Wind Turbine in the Wind Farm
Godewind 1 by PETRA L on 24 April 2023**

23 April 2024

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:
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1 FACTUAL INFORMATION

1.1 Photograph of the Ship



Figure 1: The undamaged PETRA L¹

1.2 Ship's Particulars

| | |
|--------------------------|----------------------------------|
| Name of ship: | PETRA L |
| Type of ship: | General cargo vessel |
| Flag: | Antigua & Barbuda |
| Port of registry: | St. John's |
| IMO number: | 8205187 |
| Call sign: | V2OK3 |
| Owner (acc. to Equasis): | MP Shipping GmbH & Co. KG |
| Shipping company: | BD SHIPNAVO GMBH CO. REEDEREI KG |
| Year built: | 1984 |
| Shipyard: | BARKMEIJER STROOBOS |
| Classification society: | BUREAU VERITAS |
| Length overall: | 73.66 m |
| Breadth overall: | 11.5 m |
| Draugh (max): | 4.2 m |
| Gross tonnage: | 1,162 |
| Deadweight: | 1,685 t |
| Engine rating: | 750 kW |
| Main engine: | Caterpillar USA 1 x 3512TA |
| (Service) speed (max): | 10.5 kts |
| Hull material: | Steel |
| Hull construction: | Single Hull |
| Minimum safe manning: | 5 |

¹ Source: Hasenpusch Photo-Production.

1.3 Voyage Particulars

| | |
|----------------------------------|---|
| Port of departure: | Szczecin (Poland) |
| Port of call: | Merksem (Belgium) |
| Type of voyage: | Merchant Shipping International |
| Cargo information: | 1170 t of wheat in bulk |
| Draught at time of the accident: | $d_f = 3.30 \text{ m}$, $d_a = 3.30 \text{ m}$ |
| Manning: | 7 |
| Pilot on board: | No |
| Number of passengers: | 0 |

1.4 Marine Casualty Information

| | |
|--------------------------|---|
| Type of marine casualty: | Serious marine casualty: Allision with a wind turbine |
| Date/time | 24 April 2023, 2004 hrs (CEST) |
| Location: | North Sea, Wind farm Godewind 1 |
| Latitude/Longitude: | $\varphi = 53^\circ 59,1' \text{ N}$, $\lambda = 006^\circ 58,7' \text{ E}$ |
| Voyage segment: | High Seas |
| Place on board: | Starboard forecastle |
| Consequences: | Large leak and heavy damage to the starboard side of the forecastle with water ingress Paint abrasions at the Boatlanding of the turbine R04 GOW01 |

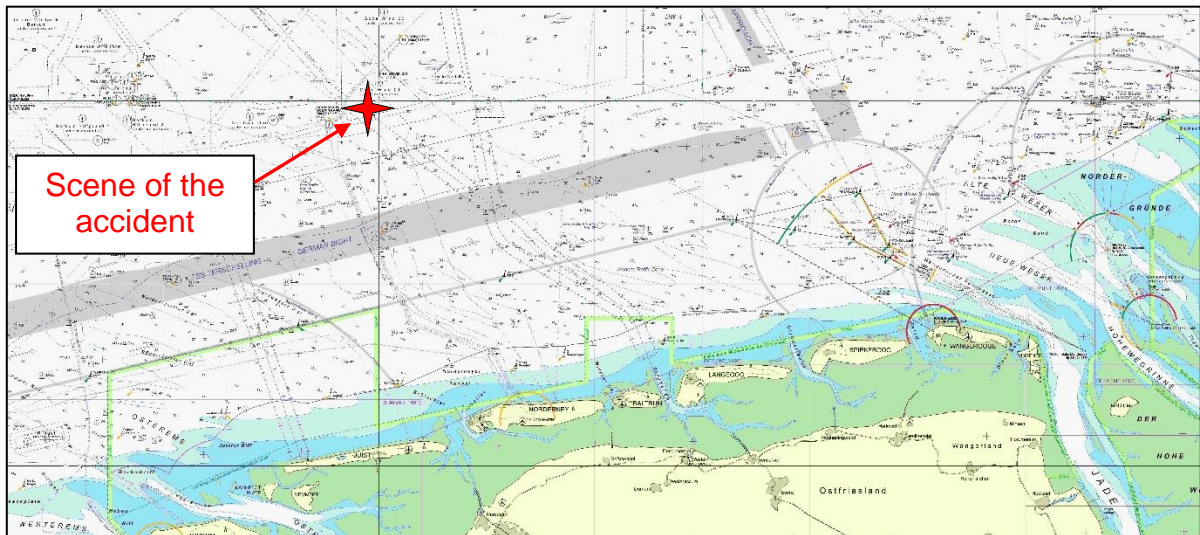


Figure 2: Location of casualty, extract of navigational chart INT 1413²

² Source: Federal Maritime and Hydrographic Agency (BSH).

1.5 Shore Authority Involvement and Emergency Response

Agencies involved: None
Resources used: None
Actions taken: PETRA L informed the Vessel Traffic Service (VTS) Wilhelmshaven (German Bight Traffic) and headed to the port of Emden as port of refuge.

2 SUMMARY

On 24 April 2023, the general cargo vessel PETRA L, sailing under the flag of Antigua & Barbuda, was en route from Szczecin (Poland) to Merksem (Belgium) via the Kiel Canal (NOK). After leaving the locks at Brunsbüttel, the vessel headed for the Traffic Separation Scheme (TSS) Terschelling German Bight.

At around 2004, PETRA L struck a wind turbine at a speed of 9 kts in the Godewind 1 wind farm. While the turbine only sustained relatively minor damage, the vessel was badly affected. The starboard side of the bow was torn open and pushed together – even below the waterline, which inevitably resulted in water ingress. No one was injured.

Since the ship remained afloat and the engine was still running, the master made the decision to head for the port of Emden, 70 nm away, despite the enormous damage and returned to the TSS.

At 0840 on 25 April 2023, the PETRA L was moored in the port of Emden.

Only at the beginning of daylight, the damage to the starboard side of the forecastle could be fully ascertained. At midday, the BSU was notified of the incident. On the next day, two investigators inspected the ship and talked to the persons involved.



Figure 3: The torn open starboard side of the PETRA L³

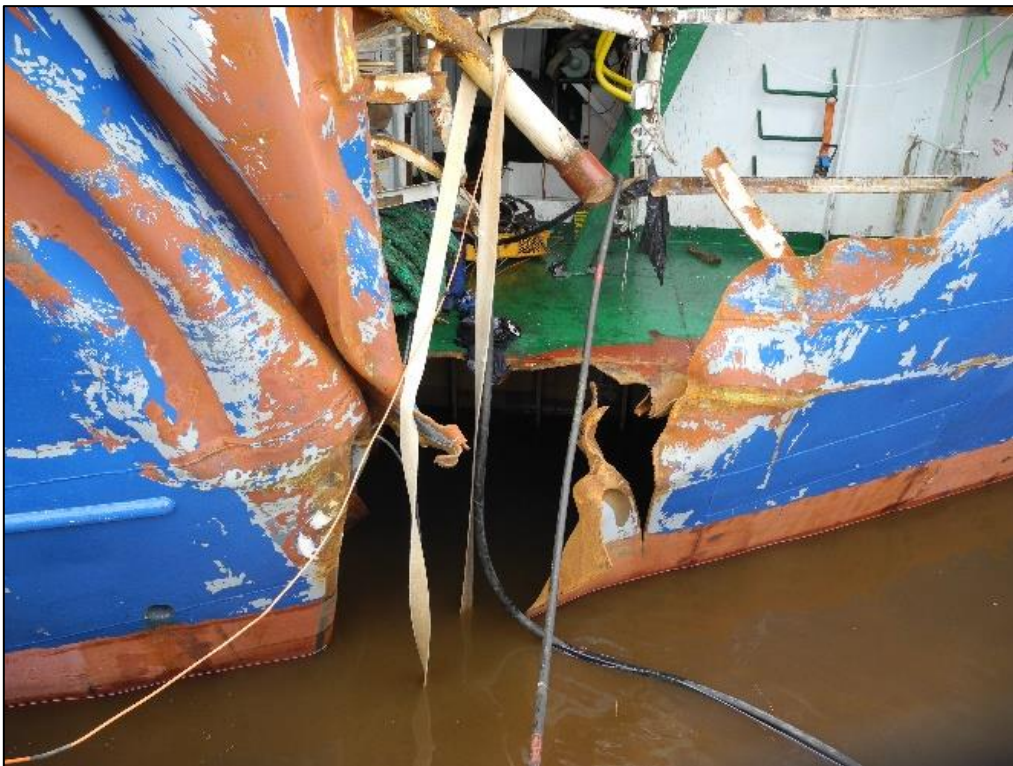


Figure 4: Damage also below the waterline⁴

³ Source: BSU.

⁴ Source: BSU.



Figure 1: Struck wind turbine in overview



Figure 2: Struck wind turbine in detail⁵

In addition to the minimum safe manning of seagoing ships, the focal points of this particular investigation are the monitoring of shipping traffic by the VTS Wilhelmshaven (German Bight Traffic) as well as the monitoring centre of the wind farm operator.

The complex investigation into the accident has since been completed and the BSU is currently in the process of compiling the investigation report. Because the one-year deadline for publication, set by the European Union and adopted as national law by the Federal Republic of Germany, cannot be met, the public is informed about the status of the investigation into this serious marine casualty by means of the publication of an interim investigation report.

⁵ Source: wind farm operator.