



INTERIM SAFETY INVESTIGATION REPORT

202012/007

December 2021

The Merchant Shipping (Accident and Incident Safety Investigation) Regulations, 2011 prescribe that the sole objective of marine safety investigations carried out in accordance with the regulations, including analysis, conclusions, and recommendations, which either result from them or are part of the process thereof, shall be the prevention of future marine accidents and incidents through the ascertainment of causes, contributing factors and circumstances.

Moreover, it is not the purpose of marine safety investigations carried out in accordance with these regulations to apportion blame or determine civil and criminal liabilities.

NOTE

This interim safety investigation report is not written with litigation in mind and pursuant to Regulation 13(7) of the Merchant Shipping (Accident and Incident Safety Investigation) Regulations, 2011, shall be inadmissible in any judicial proceedings whose purpose or one of whose purposes is to attribute or apportion liability or blame, unless, under prescribed conditions, a Court determines otherwise.

The interim safety investigation report may therefore be misleading if used for purposes other than the promulgation of safety lessons.

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MV *Atlantic North* **Propulsion malfunction of another vessel** **leading to two allisions** **in the port of Bejaia, Algeria** **05 December 2020**

SUMMARY

On the evening of 05 December 2020, the vessels *Owl*, *Atlantic North* and *Vega Sigma* were moored with their starboard side alongside, one aft of the other, at Bejaia, Algeria.

At around 2000, *Vega Sigma* started to prepare for departure. At 2112, her main engine rpm unexpectedly increased to full ahead, followed by several alarms, and the engine automatic shutdown. However, due to the thrust already generated by the propeller, *Vega Sigma* moved ahead along the berth.

Consequently, she allided with *Atlantic North*, which resulted in the latter also moving ahead along her berth and striking *Owl*, which was right ahead of her.

All vessels sustained structural damages and hull breaches. A shore mobile crane, which was loading containers on *Atlantic North*, was also damaged.

This document is an interim safety investigation report, published in terms of regulation 13(1) of S.L. 234.49.



MV *Atlantic North*

NOTICE

The information contained in this interim safety investigation report is derived from the initial notification and subsequent investigation of the occurrence to date. Readers are cautioned that there is the possibility that new evidence, which may alter the circumstances as depicted in this interim safety investigation report, may become available during the course of the safety investigation.

FACTUAL INFORMATION

Vessel – Vega Sigma

Vega Sigma was a 9,940 gt container vessel, built in 2007 in Qingshan Shipyard, China. The vessel was registered in the Republic of Liberia and was owned by MS Vega Sigma MBH & Co. KG. The vessel had a length overall of 147.87 m. At the time of occurrence, she was loaded with 4,104 metric tonnes (mt) of general cargo in containers which brought her drafts to 4.5 m forward and 7.6 m aft.

Propulsive power was provided by a marine diesel engine, which drove a controllable-pitch propeller (CPP), enabling the vessel to reach a service speed of 19.6 knots.

Vessel – Atlantic North

Atlantic North was a 14,241 gt container ship, built in 2002, by Stocznia Gdynia, Poland. The vessel was registered in Malta, owned by One Silver S.A., managed by Columbia Shipmanagement GmbH, Germany, and classed with Det Norske Veritas (DNV). The vessel had a length overall of 158.75 m, a moulded breadth of 24.0 m, and a moulded depth of 13.9 m. Her summer deadweight was 18,400.4 mt, which corresponded to a summer draft of 10.22 m. At the time of occurrence, the vessel was drawing a draft of 6.2 m forward and 7.4 m aft.

Propulsive power was provided by a 7-cylinder, slow-speed, MAN B&W 7S50MC diesel engine, producing 10,010 kW of power at 127 rpm. This drove a right hand fixed-pitch propeller, which enabled *Atlantic North* to reach an estimated service speed of 18 knots. The vessel was also equipped with a bow thruster, which produced 660 kW of power.

Vessel – Owl

Owl was a 33,045 gt bulk carrier, built in 2011 by Yangzhou Dayang Shipbuilding, China. The vessel was registered in the Marshall Islands, owned by Owl Shipping LLC, managed by Eagle Ship Management LLC and classed with Lloyd's Register (LR). The vessel had a length overall of 189.99 m, a moulded breadth of 32.26 m and a moulded depth of 18.0 m. At the time of the occurrence, *Owl* was drawing a forward draft of 5.32 m and an aft draft of 4.95 m and was unloading her cargo of raw sugar.

Propulsive power was provided by a 6-cylinder, slow-speed MAN B&W 6S50MC-C marine diesel engine. *Owl* could reach a service speed of 14.3 knots.

Crew of Vega Sigma

At the time of occurrence, the vessel was manned with 16 crew members.

Crew of Atlantic North

The Minimum Safe Manning Certificate of the vessel stipulated a crew of 13. Around the time of the accident, the vessel was manned by 17 crew members, hailing from Ukraine, Bulgaria, Russia, Poland and Georgia.

The master had started his seafaring career in 1982 and had five years of experience in this rank. He had been working with the Company for one year and had embarked *Atlantic North* on 11 November 2020 at Odessa, Ukraine. The master held an

STCW¹ II/2 Certificate of Competence, issued by the Ukrainian Authorities in 2016.

The third officer was assigned the 0800 – 1200 and 2000 – 2400 watchkeeping duties. He had started his seafaring career in 2013. He held an STCW II/1 Certificate of Competence, issued in September of 2020 by the Russian Federation. He had joined *Atlantic North* on 09 October 2020, at Marseille, France.

The crew member on duty was an able seafarer deck (AB). He had five years of experience at sea. The A/B held an STCW II/1 Certificate of Competency, issued by the Ukrainian authorities in February 2020. He had signed on the vessel at Barcelona, Spain, on 13 October 2020 and was keeping the same watch duties as the third officer.

Crew of *Owl*

At the time of occurrence, the vessel was manned with 19 crew members.

Environment

It was reported that at the time of occurrence, the weather was clear. The visibility was estimated to be seven nautical miles in night-time conditions. The wind was blowing from the West at 4 knots. No sea waves and swell were recorded in the harbour. The air and sea temperatures were recorded as 16 °C and 14 °C, respectively.

Narrative² - *Vega Sigma*

Cargo operations were complete on 05 December 2020, at around 2012, and preparations for departure had commenced. At 2032, the engineers requested the bridge for permission to start the main engine, after which they performed a main engine turbo washing to clean the turbine side of the turbocharger. At around 2053, CPP controls were transferred from the engine control room to the bridge. Shortly after, a ‘CPP misaligned’ alarm was triggered at the CPP panel but was reset without any further issues.

At 2112, the main engine experienced a sudden unintended acceleration to maximum full ahead, even though the engine telegraph was set to ‘STOP’ position. An alarm was triggered in the alarm monitoring system which indicated ‘CPP Control System Failure’. The main engine eventually stopped when the auto shut down activated.

However, due to the thrust already generated by the propeller, the vessel’s mooring ropes parted, and *Vega Sigma*’s bulbous bow struck *Atlantic North*’s stern, which was about 15 m ahead.

Assistance was provided by Bejaia port, and a pilot and two tugs were made available to secure the vessel back to her berth.

Narrative - *Atlantic North*

Atlantic North was moored with her starboard side alongside the pier, loading containers by a mobile shore crane. During this time, *Vega Sigma*, which was berthed right aft of *Atlantic North*, was preparing for departure.

Around 2125, *Vega Sigma* struck the stern of *Atlantic North*. The collision caused *Atlantic North* to move ahead, and consequently all

¹ IMO. (2001). The International convention on standards of training, certification and watchkeeping for seafarers, 1978, as amended in 1995 and 1997 (STCW Convention). London: Author.

² Unless specified otherwise, all times mentioned in this safety investigation report are in local time (LT = UTC + 1).

her mooring lines parted. The third officer of *Atlantic North* was on deck when he heard the noises of the allision. Shortly after, he also observed the mobile shore crane toppling onto the berth. The third officer immediately activated the general alarm and reported the accident to the master.

Crew members were called to the mooring stations. On the forecastle deck, the third officer observed a five-metre dent on the vessel's bow. The vessel berthed ahead of her, *Owl*, sustained a breach in her stern plating.

The impact against *Atlantic North* caused the vessel to move about 30 m along the berth, with the bow drifting around three metres off the berth, while her starboard quarter was around 25 m off. The master ordered the main engine and bow thruster to be set on stand-by. Eventually, a pilot boarded the vessel, and with the assistance of a tugboat, *Atlantic North* was made fast to her original berthing position at 2330.

Narrative - *Owl*

At around 2130, *Owl* was unloading her cargo, when she was struck from astern by *Atlantic North*. Consequently, the vessel shifted forward by about seven metres, and made contact with the pier right ahead of her.

Damages sustained by *Vega Sigma*

Vega Sigma sustained a metre-long crack on the port side of her bulbous bow, and indentations on the starboard side (Figure1).

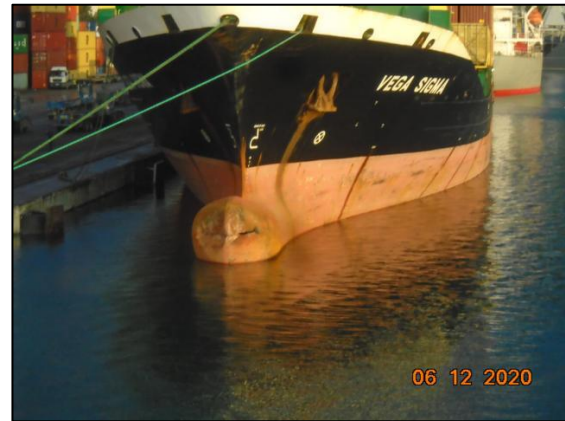


Figure 1: Damages to *Vega Sigma*'s bulbous bow

Damages sustained by *Atlantic North*

Vega Sigma struck *Atlantic North* in way of her aft peak tank. As a result, *Atlantic North*'s aft peak tank was breached (Figure 2).



Figure 2: Hole in aft peak tank

Having moved along her berth and making contact with *Owl*, *Atlantic North* sustained damages to her forecastle and her bow area (Figures 3 and 4).



Figure 3: Deformed internal structure in the forecabin store



Figure 4: The damaged bulwark on the bow of Atlantic North

Once *Atlantic North* moved forward along the pier, the mobile shore crane loading containers on bay 10, was struck with the containers stacked on board. Several cargo hold boundary railings were bent. In addition, the containers that struck the shore mobile crane had sustained multiple structural damages (Figure 5). Several of these containers contained cargo.



Figure 5: Several damages sustained by the containers on board Atlantic North

The shore crane toppled over onto the vessel's pontoon type hatch covers of bay 10, which at the time were lying on the berth. Several cracks and dents to the hatch covers were reported by the crew (Figure 6).



Figure 6: The hatch covers of bay 10 struck by the mobile shore crane

Atlantic North's mooring ropes failed during the impact (Figure 7).



Figure 7: Several remains of *Atlantic North's* mooring lines on the berth

Damages sustained by *Owl*

Owl was struck by the bow of *Atlantic North* in way of her steering gear room. This resulted in a hull breach and a deformed poop deck, including dislodged mooring leads (Figures 8 and 9).

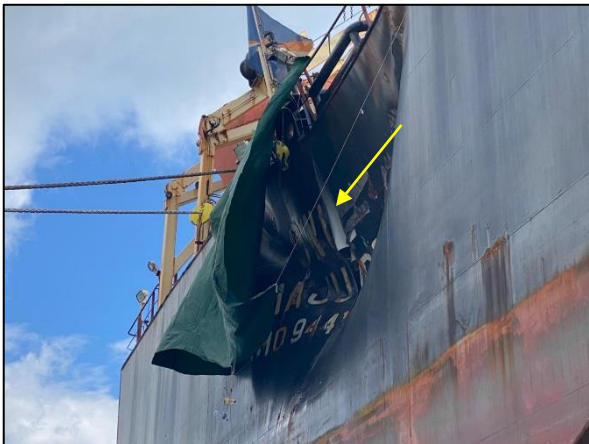


Figure 8: The breached stern plating of *Owl*

As a result of the allision, seven of *Owl's* mooring ropes parted, and five others were damaged.



Figure 9: Deformations on poop deck

Additionally, *Owl* sustained a dent on her bulbous bow, when she allided with the pier ahead of her (Figure 10).



Figure 10: Dent on *Owl's* bulbous bow

Safety investigation activities

Once the accident was brought to the attention of the MSIU, the Unit made requests for the preservation and collection of evidence from *Atlantic North*. During the preliminary assessment phase, the MSIU liaised with the Liberian Registry and the Republic of Marshall Islands' Maritime Administration.

It was eventually agreed that the Liberian Registry would lead the safety investigation, while Malta and the Marshall Islands would

be considered as substantially interested States.

Based on the information already available, the safety investigation will be focusing on several areas related to the malfunction of the CPP on *Vega Sigma* and the dynamics of this accident.

SHIP PARTICULARS

Vessel Name:	<i>Atlantic North</i>	<i>Vega Sigma</i>	<i>Owl</i>
Flag:	Malta	Liberia	Marshall Islands
Classification Society:	DNV	KR NK	LR
IMO Number:	9236597	9330240	9441386
Type:	Container Ship	Container Ship	Bulk Carrier
Registered Owner:	One Silver S.A. Ltd.	MS Vega Sigma mbH & Co. KG	Owl Shipping Ltd.
Managers:	Columbia Ship-management, Germany	Unknown	Eagle Ship Management LLC, Singapore
Construction:	Steel	Steel	Steel
Length Overall	158.75 m	147.87 m	189.99 m
Registered Length:	146.28 m	141.37 m	Unknown
Gross Tonnage:	14,241	9,940	33,045
Minimum Safe Manning:	13	Unknown	Unknown
Authorised Cargo:	Cargo in containers	Cargo in containers	Bulk cargo

VOYAGE PARTICULARS

Port of Departure:	Marsaxlokk, Malta	Bejaia, Algeria	Unknown
Port of Arrival:	Bejaia, Algeria	Valencia, Spain	Bejaia, Algeria
Type of Voyage:	Short international	Short international	Unknown
Cargo Information:	1,200 mt containers	4,104 mt containers	46,250 mt of raw sugar
Manning:	17	16	19

MARINE OCCURRENCE INFORMATION

Date and Time:	5 th December 2020 at 2125 (LT)		
Classification of Occurrence:	Serious Marine Casualty		
Location of Occurrence:	Bejaia, Algeria		
Place on board:	Bow, stern, main deck & hatch covers	Bow	Bow & Stern
Injuries / Fatalities:	None	None	None
Damage / Environmental Impact:	Material – structural damages	Material – structural damages	Material – structural damages
Ship Operation:	Loading – shore to ship	Moored	Unloading – ship to shore
Voyage Segment:	Alongside	Alongside	Alongside
External & Internal Environment:	The sky was clear, with a visibility estimated at 7 nm in night-time conditions. A light breeze was blowing from a Westerly direction. Air and Sea temperatures were recorded at 16 °C and 14 °C, respectively.		
Persons on board:	17	16	24