



Danish Maritime Accident  
Investigation Board

# MARINE ACCIDENT REPORT

## August 2012



**CARISMA**  
**Fatal accident to seafarer on 26 January**



Danish Maritime Accident Investigation Board



**Joint investigation report by the coast State of Denmark and the flag State of Finland in accordance with the IMO Casualty Investigation Code (resolution MSC.255(84)).**

This is a joint investigation report by the Danish Maritime Accident Investigation Board as the lead investigation body and the Finnish Safety Investigation Authority. The two bodies have conducted this investigation jointly and in accordance with the IMO Casualty Investigation Code.

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## **This marine accident report is issued on 17 August 2012**

**Case number:** 201201144

**Front page:** CARISMA in Roenne Harbour. Photo: Bornholm's Police.

The marine accident report is available from the webpage of the Danish Maritime Accident Investigation Board [www.dmaib.com](http://www.dmaib.com).

### **The Danish Maritime Accident Investigation Board**

The Danish Maritime Accident Investigation Board is an independent unit under the Ministry of Business and Growth that carries out investigations with a view to preventing accidents and promoting initiatives that will enhance safety at sea.

The Danish Maritime Accident Investigation Board is an impartial unit which is, organizationally and legally, independent of other parties

### **Purpose**

The purpose of the Danish Maritime Accident Investigation Board is to investigate maritime accidents and to make recommendations for improving safety, and it forms part of a collaboration with similar investigation bodies in other countries. The Danish Maritime Accident Investigation Board investigates maritime accidents and occupational accidents on board Danish merchant and fishing vessels as well as accidents on foreign ships in Danish territorial waters.

The investigations of the Danish Maritime Accident Investigation Board procure information about the actual circumstances of accidents and clarify the sequence of events and reasons leading to these accidents.

The investigations are carried out separate from the criminal investigation. The criminal and/or liability aspects of accidents are not considered.

### **Marine accident reports and summary reports**

The Danish Maritime Accident Investigation Board investigates about 140 accidents annually. In case of very serious accidents, such as deaths and losses, or in case of other special circumstances, either a marine accident report or a summary report is published depending on the extent and complexity of the accident.

## Contents

1. SUMMARY .....	5
2. FACTUAL INFORMATION.....	5
2.1 Photo of the ship.....	5
2.2 Ship particulars .....	5
2.3 Voyage particulars .....	6
2.4 Weather data .....	6
2.5 Marine casualty or incident information .....	6
2.6 Shore authority involvement and emergency response.....	6
2.7 The ship's crew.....	6
3. NARRATIVE .....	7
3.1 Embarkation and disembarkation.....	7
3.1.1 The gangway .....	7
3.1.2 The pilot ladder .....	8
3.2 After arrival .....	8
3.3 The accident .....	9
3.4 The alcohol policy .....	10
4. ANALYSIS .....	10
5. CONCLUSIONS .....	11

## 1. SUMMARY

CARISMA had been on a voyage from Slite to Roenne to take a cargo of sand. The ship arrived at Roenne on 25 January 2011 at 2200. As the loading operation was planned to commence the next morning, it was decided not to rig the gangway until visitors were expected.

Half an hour after arrival, a part of the crew left the ship to go ashore. Instead of rigging the gangway they used a pilot ladder that they rigged on the ship side. Shortly after having arrived at the town centre, one of the crew members felt tired and returned to the ship.

At 0020 on 26 of January 2012, the seaman was observed struggling in the water between the ship and the quay. Within ten minutes the seaman was safe, but he died later that night at the hospital in Roenne.

After the accident the ship has been equipped with a new gangway that can be rigged parallel to the ship's side.

This report does not contain any recommendation in relation to the fatal accident the seafarer on 26 January 2012.

## 2. FACTUAL INFORMATION

### 2.1 Photo of the ship



Figure 1: CARISMA in Roenne Harbour  
Source: Danish Maritime Accident Investigation Board

### 2.2 Ship particulars

Name of vessel:	CARISMA
Type of vessel:	General cargo ship
Nationality/flag:	Finland
Port of registry:	Porvoo/Borgå
IMO number:	8402589

Call sign:	OJMY
DOC company	Prima Shipping Ab
IMO company no. (DOC)	1996323
Year built:	1985
Shipyard/yard number	J. H. van Eijk & Zonen B. V. – Sliedrecht / 358
Classification society	Germanischer Lloyd
Length overall:	79.02 m
Breadth overall:	10.93 m
Gross tonnage:	1,473
Deadweight:	2,086 t
Draught max.:	3,97 m
Engine rating:	441 kW
Service speed:	10.0 kts
Hull material:	Steel

### 2.3 Voyage particulars

Port of departure:	Slite, Sweden
Port of call:	Roenne, Denmark
Type of voyage:	Merchant shipping, international
Manning:	Six consisting of a master, a chief officer, a chief engineer, an able seaman and two apprentices

### 2.4 Weather data

Temperature:	A few degrees below the freezing point
Light/dark:	Dark

### 2.5 Marine casualty or incident information

Type of marine casualty/incident:	Death to seafarer
IMO classification	Very serious
Date, time:	26 January 2012 at 0020 LMT
Location:	Roenne Harbour
Ship's operation, voyage segment	Alongside
Place of accident	The gap between the pier and ship
Human factor data:	The deceased seaman was under influence of alcohol
Consequences:	One seafarer died

### 2.6 Shore authority involvement and emergency response

Involved parties:	Bornholm's Police Falck A/S Bornholm Fire Service
Speed of response	Four minutes
Actions taken:	The crew member fallen overboard was brought to Roenne hospital.

### 2.7 The ship's crew

The deceased seaman	Age 35 years. Employed by the company as an able seaman and since 2007 an established part of the crew on board CARISMA.
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### 3. NARRATIVE

CARISMA departed Slite on 24 January 2012 in ballast bound for Roenne to take a cargo of sand. The ship arrived at Roenne on 25 January 2011 at 22.00.

#### 3.1 Embarkation and disembarkation

The ship was embarked / disembarked either by a gangway or by a pilot ladder.

##### 3.1.1 The gangway

CARISMA is equipped with an aluminium gangway. It is placed on the deck near to where it is to be rigged. The gangway consists of a footbridge, stanchions, hand rails and ropes. Under the gangway a net is rigged. See figure 2. When it is dark, the gangway is illuminated.

It takes approximately five minutes to rig the gangway. The gangway can be rigged by one crew member if necessary.

According to the ISM manual, the deceased seaman was responsible for rigging the gangway after arrival. The normal procedure was to rig the gangway at arrival. Under some special circumstances where proper and safe rigging of the gangway was impossible a pilot ladder had been used after the master had assessed it safe and given his permission. When the use of gangway was impossible the pilot ladder was always kept in proper height and the vessel close to quay

During loading and discharging it is often necessary to move the ship in a longitudinal direction. In such cases, it is inexpedient to have the gangway rigged. Another circumstance that makes the use of the gangway difficult is the change of draught when loading and discharging.



Figure 2: The gangway  
Source: Danish Maritime Accident Investigation Board

### 3.1.2 The pilot ladder

On board CARISMA there was a short ladder for embarkation and disembarkation of pilots. It consisted of two ropes with steps in between. There were four steps on the ladder. The distance between the steps was 40 centimetres, making the section with steps 1.20 metres long. The pilot ladder was frequently used when the gangway was not rigged for the above-mentioned reasons.

When the pilot ladder was used, it was rigged in an opening in the railing. The two ropes of the ladder were tied to stanchions in the railing, making it easy to climb down the ladder.

At sea this ladder was normally stowed in a deck house.

The picture below shows how the pilot ladder was rigged. The picture does not show the position of the ladder at the time of the accident as it had been moved before the picture was taken.



*Figure 3: The pilot ladder rigged at the ship's side  
Source: Bornholm's Police*

## 3.2 After arrival

When all necessary work was done after arrival, four crew members informed the master that they would go to the city to play pool and have a beer. The master and the chief officer stayed on board.

Before leaving the ship, the four crew members had had a beer each.



The four crew members rigged the pilot ladder and left the ship at about 2230. They arrived at the bar some 20 minutes later. Arriving at the bar, the diseased seaman told the others that he was tired and would return to the ship.

At arrival, the ship was almost fully ballasted and discharge of the ballast started shortly after arrival to get the ship ready for loading the next morning. The ballast operation took two hours. The chief officer was in charge of the ballast operation. When the discharge of ballast was finished, the ship had decreased its draught by approximately one meter. During discharge of ballast, the chief officer went on deck twice for about five to ten minutes to check if the ballast water was pumped to the sea or not.

### 3.3 The accident

Between 0015 and 0020, the chief officer went on deck to check the discharge of ballast water. When he came on deck, he heard an unfamiliar sound coming from the water. Immediately he got hold of a torchlight and got a glimpse of the seaman who was struggling in the water between the quay and the ship's side approximately 1.5 metres from the pilot ladder. The chief officer immediately alarmed the master, who hurried to the deck where he threw a lifebuoy into the water where the seaman had been seen. At the same time he alarmed the Danish Police by telephone on the Danish emergency.

The figure below shows the gap between the ship's side and the quay. The picture does not reflect the correct position of the pilot ladder as it had been adjusted after the accident and before the picture was taken.

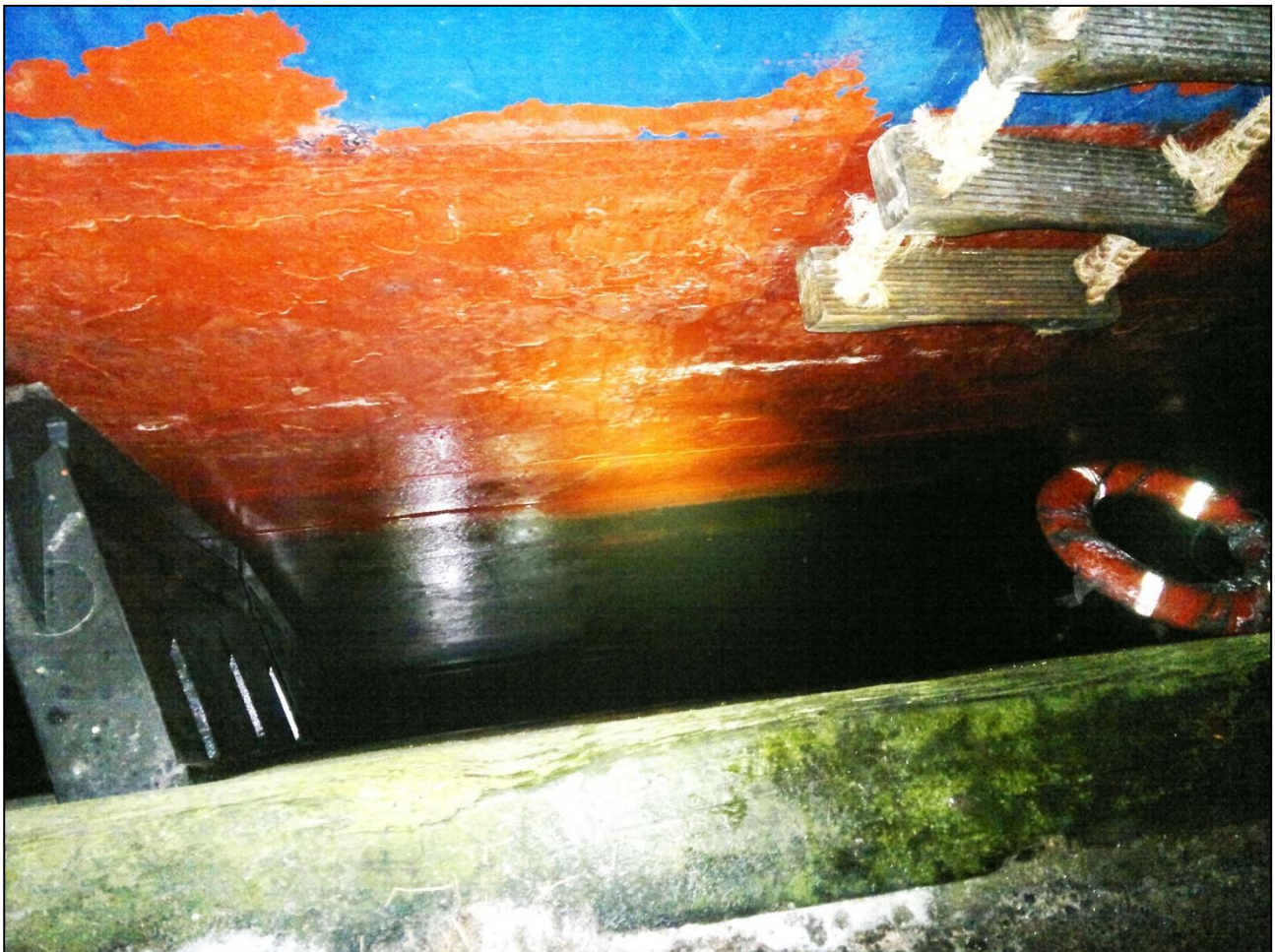


Figure 4: The gap between the ship's side and the quay  
Source: Bornholm's Police

The distance between the ship's side and the quay was about 80 centimetres and the gap was limited by two vertical rubber fenders. The distance between the fenders is 3 metres. The fenders reached from the edge of the quay and some distance below the surface of the water. From the edge of the quay to the water there was about 1.5 metres.

The chief officer untied the pilot ladder and lowered it as much as possible in an attempt to locate and get hold of the seaman who was no longer visible. The chief officer could not locate the seaman and because the lowest step of the ladder was too far above the water surface to get hold of anything, the chief officer climbed back on deck. From a locker placed nearby he donned a survival suit.

As soon as the police arrived, the chief officer saw a shadow beneath the surface under one of the fenders. He therefore stepped onto the pilot ladder and jumped into the water. After a short search, he located the seaman who was well under water. The seaman was stuck under one of the fenders. The chief officer managed to get hold of the seaman and tie a rope around him and by help of the police the seaman was dragged out of the water and onto the quay.

At that time an ambulance had arrived and the ambulance men immediately started resuscitation, after which the seaman was placed in the ambulance and taken to hospital where he later died.

At the hospital a blood sample was taken. An analysis showed a blood alcohol concentration of at least 2,85 ‰.

Approximately 10 minutes passed from the first observation of the seaman in the water until he was hauled out of the water.

### **3.4 The alcohol policy**

On board Prima Ships' vessels, drinking alcohol is not allowed during working hours. The blood alcohol concentration has to be 0.0 ‰ while at work. Outside working hours a blood alcohol concentration of 0.2 ‰ is allowed.

These rules were known to all crew members and they had all certified this by their signature.

## **4. ANALYSIS**

It was decided not to rig the gangway because the ship had to shift position early the next morning. Furthermore, it was not the intention that any crew member should leave the ship in the evening of arrival and no visitors were expected until the next morning.

When the four crew members left the ship, they rigged the pilot ladder in order to disembark the ship. On the night of the accident, the deck light was on but the pilot ladder as such was not illuminated.

It was considered a safe practice to embark and disembark the ship using the pilot ladder. This had been done on numerous occasions and the crew members were used to the ladder.

Due to the discharge of ballast, the ship had decreased its draught by approximately one meter. The steps of the pilot ladder were therefore one meter higher above the quay than when the crew members left the ship.

Because of below-zero temperatures, the quay was slippery due to ice.

## 5. CONCLUSIONS

On board CARISMA, the gangway was not used consistently for a number of reasons where it could not be rigged.

Half an hour after arrival, the crew members rigged the pilot ladder and left the ship. At that time the discharge of ballast had just begun. When the seaman returned to the ship, the steps of the pilot ladder had been raised one meter due to discharge of ballast. For this reason and because the distance between the quay side and the ship's side was 80 centimetres, it became considerably more difficult to step onto the pilot ladder.

On the day of the accident, the temperature was below the freezing point. This circumstance made the quay slippery as it was covered with patches of ice. This may have caused the seaman to slip and fall into the water while attempting to use the pilot ladder to embark the ship.

Arriving at the ship, the seaman had a blood alcohol concentration of at least 2.85 ‰. In general, such a concentration causes severe motor impairment. This may have reduced his judgment- and reaction capability.

The use of the pilot ladder instead of the gangway had over time resulted in a non-realized increase of risks; risks such as slippery quay surfaces, variable distances between the quay and ship's side, and the changed position of the pilot ladder due to changes in the displacement.

The investigation board assesses that these circumstances were essential contributory factors to the accident.