



DUTCH
SAFETY BOARD

Investigations

The Dutch Safety Board has a legal obligation within the shipping sector to investigate serious and very serious incidents involving Dutch seagoing vessels. This obligation also applies to investigating serious and very serious incidents involving seagoing vessels in Dutch territorial waters. The Dutch Safety Board carries out such investigations in accordance with the Dutch Safety Board Act and the EU directive 2009/18/EC from the European Parliament and the Council of the European Union, dated 23 April 2009, regarding investigating and preventing maritime transport accidents. In the event of serious incidents, if the Safety Board decrees that there are no structural safety shortcomings after conducting an extensive investigation, a description of the incident is sufficient. The Safety Board's principal goal is to prevent accidents or to limit the consequences of these by drawing lessons and formulating recommendations. Investigations into guilt or liability explicitly do not form part of the Safety Board's remit.

Shipping Occurrences Report

November 2016 - April 2017

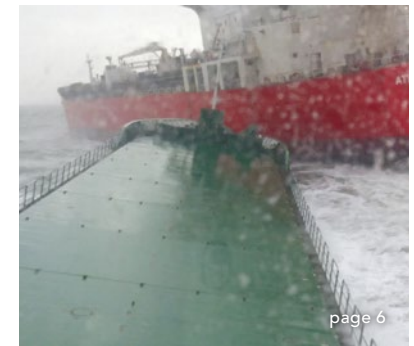


In order to draw lessons from an independent investigation after a serious marine accident it is of great importance that the Dutch Safety Board has all data recorded on the ship to its disposal. The above-mentioned data is stored on board of the larger maritime vessels on the Voyage Data Recorder, also known as VDR. The recorder is more or less comparable with the 'black box' on an airplane. This data is vitally important for establishing the truth and in preventing similar incidents in the future. It is therefore of crucial importance that the recorded data remains available to the investigators after the incident.

The Safety Board notices that for Dutch shipping companies and ship crews it occasionally remains unclear to whom they should make the VDR-data available after an (near) incident. The Dutch Safety Board is of the opinion that this data should only be used for investigations so that lessons can be learned, not for criminal prosecution. The board's opinion is supported by both national and international legislation. Moreover, the Safety Investigation Board act also defines the protection of the data requested by the board. The Dutch safety board eventually determines which information used in the investigation will be published in the final report. All other non-published information used in the investigation remains confidential unless it is related to criminal prosecution of a series of serious crimes for example, murder, manslaughter or terrorism.

The Dutch Safety Board believes that clarity concerning the availability of VDR-data plays such a significant role in the investigation process that it has dedicated the lead article of the Shipping Occurrences Report to this topic.

Tjibbe Joustra, *chairman Dutch Safety Board*



Information from Voyage Data Recorders and accident investigation

The VDR and accident investigation

After a serious shipping accident, it is important for the independent investigation and for lessons to be learned that the voyage data is made available as quickly as possible. On board of larger sea-going vessels, this data is recorded in the voyage data recorder (VDR). A VDR continually records data on the navigation of the ship, such as its speed, position and course. Communication on the bridge, alarms, radar images and engine data are also recorded. By using this data in an accident investigation it is possible, with the help of software tools, to gain an indisputable picture of the situation at the moment of the accident.

The Dutch Safety Board has long argued that VDRs should not just be installed on all Dutch sea-going vessels, but also their correct use. For instance, shipping crews should test and maintain the VDR equipment regularly. The captain should ensure that the VDR data is stored immediately following an accident by saving it. If this isn't done, the data will be wiped. Shipping accidents often happen in places where investigators do not have immediate access to secure the data themselves. In this context, therefore, the role of the captain is important.

It is not uncommon for a lack of knowledge about the operation of the VDR to result in the loss of data. Internationally, too, the importance of an operational VDR, accompanied by proper instruction in its use, has been emphasised for many years.

Ownership and use of the VDR and data

The Dutch Safety Board is regularly asked questions about the ownership of and access to the data in the VDR. The International Maritime Organization (IMO) has established a set of guidelines on this in the SOLAS Convention, covering the use of data from a VDR before, during and following an investigation.

The IMO guidelines state that:

- The ship's owner will, in all circumstances and at all times, own the VDR and its data.
- The ship's owner must make all recorded data available to the investigator following an accident or near-accident.
- The investigator may take the original VDR capsule into secure custody for the course of the investigation.
- The investigator is responsible for downloading and reading out the data and must keep the ship's owner fully informed during the investigation.
- A copy of the data from the VDR must be provided to the ship's owner at an early stage.
- Further access to the data is governed by the applicable domestic legislation of the flag state, coastal state and other substantially interested states.

The IMO guidelines therefore refer directly to the application of national laws. In the case of the Netherlands, our national laws apply in Dutch territorial waters, but also on Dutch-registered ships regardless of where they are in the world in non-territorial waters (high seas). Section 69 of the Dutch Safety Board Act is highly significant for the use of VDR data. It stipulates that data recorded by a VDR and the corresponding transcripts may not be used as evidence in criminal, disciplinary or civil proceedings, nor serve as a basis for disciplinary measures or any administrative sanctions or measures. The same section also stipulates that the VDR may not be seized or demanded for inspection for the purposes of a criminal, disciplinary or administrative investigation.

However, Section 69 also provides for one important exception: the VDR may be taken into custody by the Public Prosecution Service as part of a criminal investigation into a hostage situation, murder, manslaughter or a terrorist offence. In that case, the VDR data may be used as evidence in criminal proceedings.

The fact that certain information, including data recorded on a VDR, may not be used in legal proceedings is primarily intended to protect those involved, in that investigation data may not be used *to their detriment*.

In practice, this means that VDR data may only be provided to the party running the independent investigation to learn lessons (in the Netherlands, the Dutch Safety Board), but not to other potentially interested parties, such as the police, an inspectorate or the Public Prosecution Service, unless one of the exceptions mentioned above applies.



VDR-Capsule.



VDR-apparatuur aan boord van een zeeschip.

The Dutch Safety Board Act applies on Dutch territory, in Dutch territorial waters (including the areas in the Caribbean part of the Kingdom) and on board Dutch sea-going ships. All investigation data, including the data of the VDR, is protected there as described above.

This means that in the case of an accident on board a Dutch ship in international waters, the VDR data must in principle only be released to investigators if the aforementioned exception does not apply. What happens in practice is often different. When a ship visits a foreign

port after an accident, local authorities sometimes enter the ship and want to take the data from the VDR. In many cases, it is the police that comes on board and demands the data, rather than the national, independent investigating body.

A Dutch sea-going vessel that, at the time of an accident, was in the territorial waters of a foreign state may be faced with the national laws of that state, which may mean that the VDR has to be released to the local authorities.

Summary

In the Netherlands, VDR data may only be used for an independent investigation in order that lessons be learned. The availability of the recorded data is of major importance for this independent investigation. Effective maintenance and regular testing of the VDR equipment and the retention of data by the crew following an accident are essential. It is also crucial for every Dutch shipping company that they and their crews are apprised of the rules set out in Dutch legislation regarding the release of the data of VDR, and that they too should always have the data available to them. In the international context, the Dutch Safety Board is working hard to achieve a situation similar to that in the Netherlands where the protection of the data of the voyage data recorder is concerned.

Accident classification

In this Shipping Occurrences Report, the Dutch Safety Board presents descriptions of incidents on board vessels sailing under the flag of the Netherlands or within Dutch territorial waters, as well as reports published in the period between 1 November 2016 and 1 May 2017.

Every accident is classified according to its severity. The categories match those stipulated in EU Directive 2009/EC/18:

Very Serious: accident involving the total loss of a ship, fatalities, or serious environmental damage.

Serious: accident involving a vessel that cannot be classified as 'very serious' and in which, for example, a fire, collision, grounding, etc. has occurred resulting in the ship not being able to sail further or causing environmental damage.

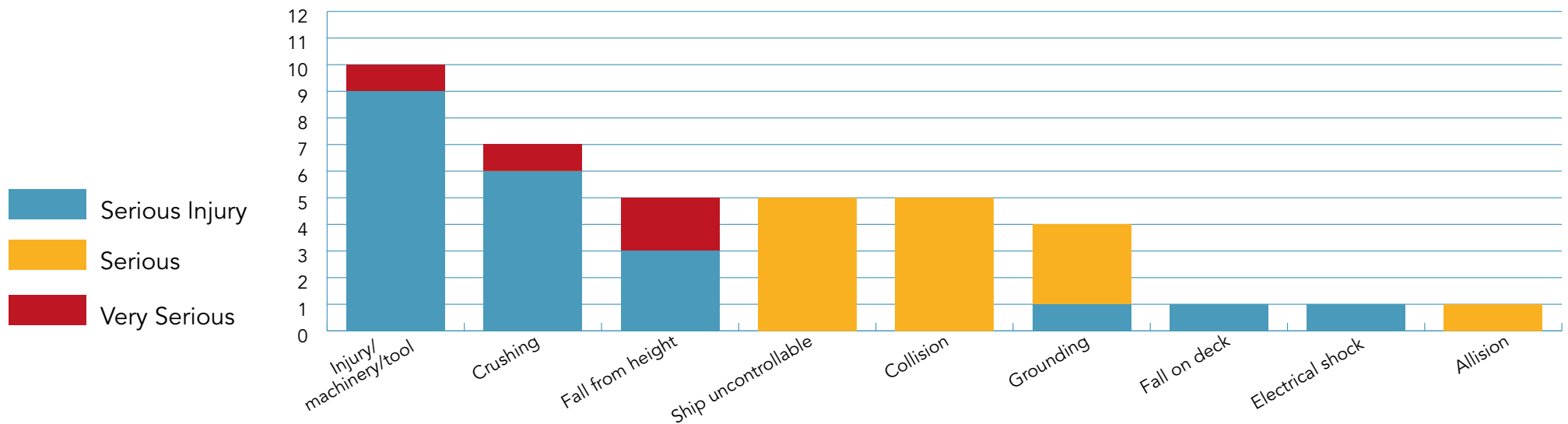
Less serious: accident that cannot be qualified as 'very serious' or 'serious'.

Marine incident: an event or series of events, other than an accident, which took place in connection with shipping operations and which endangered the safety of the ship, occupants or the environment, or would have endangered these without correction.

Serious injury: injury sustained by a person, resulting in the person being unfit for work for longer than 72 hours, within seven days of the date on which the accident took place.

This report describes the incidents classified as very serious, serious and serious injury. It also includes the incidents that relate to the Dutch Safety Board's priorities.

Occurrences in this Shipping Occurrences Report



Accidents classified as Very Serious, Serious or Serious Injury between 1 November 2016 and 1 May 2017, categorised according to type.

Published reports

Crewmember seriously injured, Lisa Essberger, Barcelona harbour inlet, 23 October 2015

On Sunday 23 October 2015 at around 13:30 hours, the Dutch chemicals tanker Lisa Essberger left the port of Barcelona (Spain). On the forecastle, two crewmembers were at work on the port side; one was using a winch to coil a rope on the drum, while the other was securing the anchor for sea. The left leg of the crewmember working with the rope became entangled in the rope and he was dragged against the head of the winch. By shouting, the crewmember managed to warn his colleague on the forecastle, who stopped the winch immediately and notified the bridge of the accident. The injured crewmember's left leg was stuck between the head of the winch and the winch drum. The crewmember suffered a compound fracture to the leg.

The patient was taken to the port of Barcelona in a lifeboat and transferred to hospital by ambulance. At hospital, the lower leg was found to be beyond recovery and had to be amputated.

In response to this incident, the Spanish Comisión Permanente de Investigación de Accidentes e Incidentes Marítimos (CIAIM) carried out an investigation that resulted in the following findings:

- lack of experience or exhaustion of the crewmember involved did not play a role;
- from a technical perspective, the hydraulically powered mooring equipment was in good condition;
- operation of the winch did not require the permanent presence of an additional person; this constitutes a risk if something goes wrong with the winch.

CIAIM concluded that if there is a physical hazard for a member of the crew, another member of crew should always be present in order to shut down the machinery. The shipping company has taken appropriate measures for all its ships.

Classification: *Very Serious*

Collision in anchorage, Arklow Rambler and Atlantic Jupiter, Maas Approach, 8 February 2016

On Monday 8 February 2016, the Hong Kong tanker Atlantic Jupiter collided with the Dutch freighter Arklow Rambler. The Arklow Rambler suffered damage to the bow while the Atlantic Jupiter suffered a 15-metre gash just above the water line. Both ships were anchored in anchorage 4E, close to the port of Rotterdam. Due to poor weather conditions, the anchors of the two ships had been dragging and they drifted from their positions. The Atlantic Jupiter then decided to hoist the anchor and to wait for improved weather under power. However, the manoeuvre that the Atlantic Jupiter completed after hoisting its anchor caused it to drift towards the Arklow Rambler, resulting in a collision. The Arklow Rambler then sailed into the port of Rotterdam. The Atlantic Jupiter followed nine hours later.

Following the investigation, the Dutch Safety Board draw the following conclusions:

The anchorage area in the Port of Rotterdam has one barrier for preventing collisions, which is maintaining sufficient distance. Various checks, incorporated for that purpose, could not have prevented the occurrence of a collision:

- Distance between ships: the Arklow Rambler and the Atlantic Jupiter did not maintain sufficient distance to be able to respond to an unexpected situation.
- Anchor: by raising the anchor of the Atlantic Jupiter and because of the subsequent manoeuvre, there was insufficient control of the ship.
- Communication: the communication between the parties involved was unclear prior to, during and after the collision. The ships did not use the Standard Marine Communication Phrases (SMCP).
- Situational awareness: the captain on the Atlantic Jupiter was not aware of the effect that the wind and current would have on his ship after hoisting the anchor.

On board the Atlantic Jupiter and the Arklow Rambler, the crew executed many actions after the collision. However, a number of control measures were not implemented or were insufficiently implemented.

- Safe navigation: immediately after the collision, not enough attention was given to safe navigation on board the Atlantic Jupiter, because of which a second collision almost occurred.
- Communication: Maas Approach VTS was not aware of the collision for quite some time due to unclear communication and the lack of urgency in the communications from the Atlantic Jupiter and the Arklow Rambler. The ships did not use the Standard Marine Communication Phrases (SMCP).
- VTS could have persisted in asking questions sooner once it was known that a collision had occurred, thereby gaining a better overview of the situation.

Published reports

- Safe port: due to actions taken by Arklow Shipping, Arklow Rambler was able to enter the port quickly. However, the Atlantic Jupiter took a risk by sailing for a long period of time in bad weather with a large hole in the ship.

Based on these conclusions, the Dutch Safety Board draws a number of lessons:

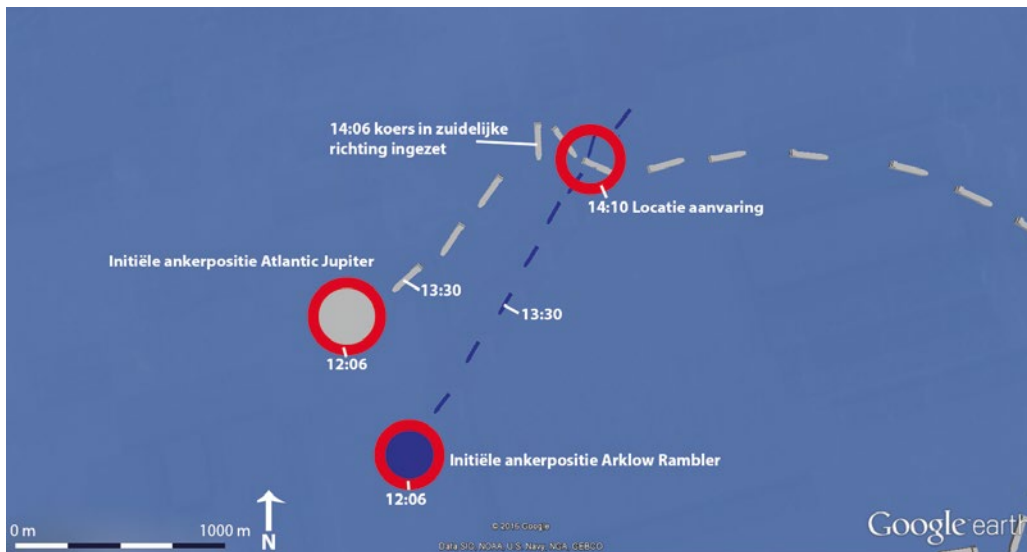
- Ships in an anchorage area are themselves responsible for maintaining sufficient distance from other ships. Given the complex situation, it is not possible for everything to be regulated by rules, and good seamanship is required. Factors such as the weather and the load of the ship have to be taken into account. Sufficient distance means that a ship is capable of anticipating unexpected situations and the movements of other ships.
- The VTS and ships must ensure smooth, clear communication, in order to be able to make timely decisions using the correct information. The Standard Marine Communication Phrases (SMCP) of the International Maritime Organization have been developed specifically for this purpose. The command

of the SMCP is a minimum requirement for officers who are charged with the navigation watch and must be observed.

- Take no unnecessary risks by continuing to sail with major damage to the ship: find a safe port as soon as possible. Extra costs associated with this should not outweigh the safety of the crew.
- If having a VDR on board is required, make sure that it works as well. The VDR contributes to determining the cause of an accident, and thereby to the lessons that can be learned and to maritime safety.

Classification: Serious

The full report can be found at <https://onderzoeksraad.nl/en/onderzoek/2323/collision-in-anchorage-area-8-february-2016>



The ships crawled backwards from the anchorage, then the Atlantic Jupiter hoisted its anchor and wanted to sail south. During this manoeuvre, the Atlantic Jupiter hit the Arklow Rambler (Source: Google Earth)



Moment shortly before the collision seen from the bridge of the Arklow Rambler (Source: Arklow Shipping)

Crewmember injures hand while mooring in the port of Amsterdam, 5 February 2016

The Maltese freighter Vola 1 entered the Vlothaven at the port of Amsterdam on 5 February 2016. A Dutch pilot was navigating and the ship was assisted by two port tugs.

After the aft spring was put out followed by the stern line, the pilot gave the order to release the aft tugboat. The towing line of the aft tugboat was attached to a single bitt, fed through the centre Panama fairlead. The master relayed the instructions to the second mate, who was in charge of the aft mooring station. The other members of the mooring crew included a fitter, an motorman and two able seamen (AB). All members of the mooring team were wearing protective clothing, safety helmets, safety shoes and gloves.

The tug's towing line was slack. The messenger line of the towing wire was warped around the winch drum and held by AB 1. The second mate and AB 2 lifted the eye of the towing line from the bitt by hand. Before the eye of the towing line was set free from the bitt, the towing line unexpectedly became taut. The left hand of AB 2 was caught and became stuck between the eye of the towing

line and the bitt. The fitter was operating the winch (with the messenger of the towing line). The motorman was handling the stern line. Due to the pinching, the AB suffered injuries to his left hand and fingers. First aid was provided on board and he was taken to hospital by ambulance.

Following this incident, the *Maltese Marine Safety Investigation Unit (MSIU)* carried out an investigation, resulting in the following findings:

- There was insufficient information sharing between the pilot and the tugboat master.
- The second mate had not made any direct (eye) contact with the tugboat. He was relying on the radio communication with his master. Marine Guidance Note 308 (Marine and Coastguard Agency) recommends maintaining good communications between the assisted ship and the tug so that instructions relating to the towing line are understood and unexpected tensioning of the towing line is avoided.
- According to instructions, when using a messenger it is important to first pull any slack out of the towing line, to then slow it down using a line stopper,

before the eye of the towing line is released from the bollard. These instructions were not followed. Crew should never attempt to release towing lines that are still tensioned.

- At the moment the eye was to be lifted off the bitt, the towing line was tensioned. The master suspects that a movement of the tug made by the tug master caused the towing line to become tensioned.
- All crew members of the Vola 1 were Bulgarians. The master communicated in English with the mooring crew to prevent any misinterpretation of the pilot's instructions. There are indications that the pilot and the tugboat captain were communicating in Dutch despite the master's request to switch to English.

After the accident, the shipping company reviewed its safety manuals and procedures. Furthermore, the accident was addressed extensively by the safety committee, in consultations with officers and elsewhere.

Classification: Serious

Investigations started

Inland vessel laden with benzene sails across a weir in fog, Grave, 29 December 2016

On Thursday, 29 December 2016 at around 19:30 hours, an inland tanker vessel carrying benzene sailed in thick fog into a weir in the river Maas at Grave. No persons were injured as a result of the accident. However, the material damage (to the weir and the ship) and the consequences for society (residents and businesses in the surrounding area and inland shipping) were considerable in both the short and longer term. The Dutch Safety Board launched an investigation which focused not just on the collision itself, but also on the way the consequences were dealt with.

Classification: Full Investigation

Member of crew dies after falling overboard during unloading, Moerdijk, 30 December 2016

On Thursday, 30 December 2016 at around noon, a crewmember fell overboard during unloading. The crewmember was 'tapping' the twistlocks to undo them. He then fell into the water. At first, he could not be seen or found, and after half an hour divers entered the water to search for the crewmember. After an approximately 15-minute search, they pulled him out of the water. The victim was immediately resuscitated and taken by ambulance to hospital with a police escort. The victim died later that night in hospital.

The Dutch Safety Board launched an investigation into this accident.

Classification: Very Serious

Fatal accident on board of a trailing suction hopper dredger, Denmark, 17 March 2017

A fatal accident occurred on board of a Dutch dredging ship on 17 March 2017 near Esbjerg (Denmark). A new captain was being put through his paces on board of the vessel. If there is no cargo on board, the ship always sails in ballast. Depending on the weather conditions, more ballast is added so that the ship sails more smoothly over the waves. On the bridge, the procedure of using ballast was being explained and the pump was started. The water then enters the hold through various openings in the ship's suction tube. A number of seconds after the start of the pump, the crew present on the bridge saw a person wash out of the suction tube into the hold. It turned out to be one of the two welders on the ship. The pump was immediately stopped and a rescue mission was launched. The body of the victim was eventually recovered from the hold by fire service divers at the port of Esbjerg.

The Dutch Safety Board launched an investigation into this accident.

Classification: Very Serious



Damage to the weir at Grave after a collision by an inland vessel.

Investigations launched by foreign authorities with the Netherlands as substantially interested state

Crew member becomes trapped between accommodation and hatch-cover crane, Szczecin (Poland), 2 December 2016

On 2 December 2016, a member of the crew died on a freighter sailing under a Dutch flag. The ship was loading in the port of Szczecin in Poland during rainy conditions. During loading at around 01:30 hours, one of the hatch covers to the rear had to be replaced. This was done using the hatch-cover crane, but the wheels of the crane skidded on the rails. To give the wheels more grip, sand was applied to the rails. The hatch-cover crane carrying the hatch cover eventually started to move, but once it arrived where the hatch cover was needed, the wheels skidded again and the hatch-cover crane skidded further along the rails. The victim became trapped between the hatch cover and the accommodation and died on site.

The Polish State Commission on Maritime Accident Investigation (PKBWM) launched an investigation into the incident. As the Netherlands is a substantially interested state, the Dutch Safety Board is supporting the investigation where required.

Classification: Very Serious

Fatal injury after fall at sea, North Sea close to Hook of Holland, 31 December 2016

On 31 December 2016 at around 12:30 hours, a Polish sea-going tugboat departed Hook of Holland, heading out to sea without tow. Around ten minutes after passing the harbour entrance at Hook of Holland, a member of the crew found the chief engineer at the bottom of the steps to the accommodation. The victim was unconscious and blood was oozing from his ears. A decision was taken to return immediately to Hook of Holland. The victim was transferred to hospital by ambulance, and later died there.

The Polish State Commission on Maritime Accident Investigation (PKBWM) launched an investigation. The Dutch Safety Board provided assistance.

Classification: Very Serious

Tow of a sea-going tugboat sinks off the west coast of Texel, 30 April 2017

On 29 April 2017 late in the evening, a Polish sea-going tugboat departed Den Helder with a tow in stormy weather conditions. The destination was a port in Finland. The towed vessel was a ferry boat that had been in use on the Rhine in Germany for 44 years. Earlier in the week, the sea-going tugboat had taken its tow from Rotterdam. The ferry boat had been prepared for sea in advance of the journey.

When the transport was west of the island of Texel in the night of 29 to 30 April, the tow got into serious trouble. The tugboat informed the Coastguard and tried to bring the tow closer to the coast. The Emergency Towing Vessel (ETV) from the Dutch Coastguard was on site as the tow capsized and sank. There were no persons on board the tow and the fuel tanks were empty.

The Polish State Commission on Maritime Accident Investigation (PKBWM) launched an investigation.

Classification: Serious



Hatch-cover crane after skidding. (Photo: PKBWM)

Incidents that were not extensively investigated

Wrist broken in engine room, Eurodam, Mediterranean Sea, 3 November 2016

A crewmember of the Dutch cruise ship Eurodam broke his wrist while working in the engine room. The incident took place on 3 November 2016. The crew member was hit by a cylinder, causing him to lose his balance and fall.

Classification: Serious injury

Two fingers trapped, Wes Amelie, Rotterdam, 5 November 2016

The container ship Wes Amelie (sailing under the flag of Antigua and Barbuda) was moored in the Waalhaven in Rotterdam. When closing a watertight access hatch, a crewmember trapped two fingers. He was leaving the bow thruster room and became trapped between the counterweight of the access hatch and a steel mount of

the fire extinguisher pipe. As a consequence, a finger was bruised and bones in the small finger were crushed.

Classification: Serious injury

Collision with the quayside after the tow line broke, Vechtborg, Skagen (Denmark), 5 November 2016

On the evening of 5 November 2016, the cargo ship Vechtborg, sailing under the Dutch flag, was moored in the port of Skagen (Denmark). During poor weather conditions (wind force 8), the ship's moorings failed. A decision was taken to depart and the ship manoeuvred to the anchorage, assisted by a tug. During this manoeuvre, at around 22:30 hours, the tow line failed and the ship drifted into the jetty, following which the ship dropped anchor on the Skagen anchorage. After an inspection of the ship, below the waterline, it was later allowed to depart.

Classification: Serious

Fall from accommodation ladder, Arklow Manor, Moerdijk, 10 November 2016

On departure of the Irish freighter Arklow Manor from Moerdijk on 10 November 2016, a crewmember fell from a height at around 22:00 hours. He was assisting the boatswain with the accommodation ladder during the unmooring of the ship. The boatswain was lifting the accommodation ladder. The stern of the ship moved away from the quayside so that the aft spring was in danger of hitting the accommodation ladder. The crewmember climbed onto the accommodation ladder and tried to push it clear of the aft spring. This was unsuccessful; the accommodation ladder moved upwards due to the aft spring, which had become tensioned. As a result, the crewmember lost his balance and fell approximately six metres onto the quayside below. He suffered a broken ankle.

Classification: Serious injury



Arklow Manor (Photo: Ria Maat)

Running aground due to black-out, X-Press Etna, Nieuwe Maas, 13 November 2016

On 13 November 2016 the Maltese freighter X-Press Etna had just left the port of Rotterdam and was sailing on the Nieuwe Maas when it suffered a black-out. The chief engineer immediately restored power but the ship then suffered a further black-out. Due to the current on the river and the proximity of shallow water, the ship then ran aground. After power had been restored manually it proved possible for the ship, with the assistance of two tugs, to continue on its way on the same day at around 13:00 hours. An inspection was first conducted before the ship resumed its voyage. The outcome of the inspection was that a control of a generator had failed, probably due to wear. The ship had not incurred any further damage and no other technical deficiencies were discovered.

Classification: Serious



Frio Petropavlovsk in the Noordersluis locks at IJmuiden (Photo: Lammert Melk)

Medical evacuation, Morgenster, 100 NM NNW Den Helder, 15 November 2016

On 15 November 2016 a crew member of the Dutch trawler Morgenster (HD-29) suffered serious injuries to his hand during work in the refrigerating hold. While in the refrigerating hold, he was holding the edge of the door groove when the door fell closed due to the movements of the ship. As a result the crew member lost part of a finger. A Search and Rescue helicopter picked up the crewmember and flew him ashore. He was then taken to hospital in Alkmaar by ambulance.

Classification: Serious Injury

Stranding, Frio Petropavlovsk, IJmuiden, 19 November 2016

On 19 November 2016 the reefer vessel Frio Petropavlovsk (sailing under the flag of Saint Kitts and Nevis) began to veer strongly to starboard shortly before entering the port inlet of IJmuiden. This movement could not be compensated for by the rudder and propeller. As a result the ship grounded on the southern pier of IJmuiden at around 19:30. The ship was sailing under pilotage. After running aground on the southern pier it was not possible for the ship to free itself under its own power. About half an hour after the stranding, the ship was refloated with the help of two tugs. An inspection did not reveal any leaks.

Classification: Serious

Collision between the container ships Victoria and Berwick, Schouwenbank anchorage, 20 November 2016

On the morning of Sunday, 20 November 2016 at 10:50 hours the container ships Victoria, sailing under the flag of Portugal, and Berwick, sailing under the flag of the Marshall Islands, collided with each other on the North Sea. The collision occurred in the Schouwenbank anchorage at roughly 11 miles west of Schouwen-Duiveland. Both ships were originally at anchor in the anchorage. At that time a 10 Bft wind was blowing from the south-west, setting the Victoria and the Berwick adrift and causing the anchor chains of the two ships to touch each other. As a result both the Victoria and the Berwick lost their anchors, and both ships suffered material damage. The Berwick ultimately incurred engine problems and thus went adrift, drifting parallel to the coast in the direction of the Maas Noord area. Tugs set out to assist the Berwick. The crew of the Berwick were able to restore propulsion by themselves, obviating the need for further assistance by the tugs. No personal injury, environmental damage or damage to the cargo took place.

Classification: Serious

Incidents that were not extensively investigated

Ship sheers out of line and runs aground, Salix, Nieuwe Waterweg, 5 October 2016

The Cook Island-registered freighter Salix departed from a berth on the Nieuwe Maas in Vlaardingen at 18:15 hours, under pilotage, outbound. Once the ship had manoeuvred free of the quay and was slowly heading down the river, operation of the rudder was switched to the automatic pilot. At this point the ship began to veer



Salix. (Photo: Aart van Bezooijen)

to starboard towards the northern bank of the river. After switching back to manual operation the rudder remained at 10 degrees to starboard, causing the ship to continue its turning motion. The ship was powered full steam astern and the crew dropped the starboard anchor. This led to a drastic reduction in speed but did not prevent the ship stranding on the northern bank of the river at 18:30 hours. The ship was unable to free itself under its own power. Ultimately it was refloated with tug assistance. The ship was then brought to a nearby port for inspection by the port authorities. Both the ship and the river bank were damaged in the collision.

Classification: Serious

Hand trapped between spring and Panama fairlead, Africaborg, Thunder Bay (Canada), 12 December 2016

On the morning of 12 December 2016 the Dutch freighter Africaborg, was mooring in the port of Thunder Bay (Canada). While moving astern the intention was that no force should be exerted on the aft spring because the crew first planned to place it on the guide roller. To this end the later injured was holding the aft spring in his hands. However, those on the bridge were not aware of

the placing of the spring and the ship continued to move slowly astern as planned. Ultimately the crewmember's hand became trapped between the aft spring and the Panama fairlead. The injured crewmember was taken to hospital and had to undergo an operation.

Classification: Serious Injury

Crew member breaks his leg, Teal Arrow, Rotterdam, 19 December 2016

On 19 December 2016, at around 17:30 hours, a crew member of the Panamanian freighter Teal Arrow broke his leg when he slipped at the foredeck of the ship. The ship was moored in the Botlekhaven in Rotterdam. The crew member was taken to hospital.

Classification: Serious Injury

Crewmember injured by towing line, Multratug 27, Vlissingen, 21 December 2016

On Wednesday, 21 December 2016 at around 19:45 hours the Dutch harbour tug Multratug 27 was in the Sloehaven in Vlissingen, engaged in establishing a towage connection with an incoming seagoing vessel. The chief engineer was giving slack on the towing line by operating the towing winch on the bridge, while the captain was keeping the tug in the correct position and the seagoing vessel was hoisting the towing line on board.

A crewmember on board the tug noticed that the towing line was jamming and wanted to rectify this. The crew on the bridge saw the crewmember walking to the towing line in contravention of all regulations. On the seagoing vessel the hoisting of the towing line continued. While the crewmember was walking towards the towing drum, the towing line became free again and struck the crewmember on the side of his head. He then fell to the ground and remained lying there unconscious. The chief engineer immediately saw that the situation was serious.

The Multratug 27 immediately headed for shore and was moored there by 20:20 hours. The injured crewmember

was taken to hospital by ambulance, where it was established that he had suffered a basilar skull fracture and concussion.

Classification: *Serious Injury*

Collision between Alana Evita and Key Marmara, Kaliningrad (Russia), 23 December 2016

On Friday, 23 December in the port of Kaliningrad (Russia) a collision occurred between the Maltese chemicals tanker Key Marmara and the moored Dutch freighter Alana Evita. After the Key Marmara unmoored, it turned to starboard instead of following the fairway. It then dropped her starboard anchor but this action was unable to stop the ship's movement, and the Key Marmara veered further to starboard towards the Alana Evita, which was lying moored ready to depart. Ultimately the bow of the Key Marmara struck the Alana Evita amidships. The bulb of the Key Marmara created a hole about 1.5 metres in depth and 4x4 metres across.

Classification: *Serious*

Seriously injured first mate, Sea Bronco, Vlissingen, 23 December 2016

On 23 December 2016 the Dutch tug Sea Bulldog was lying moored in the 1^e Binnenhaven in Vlissingen. The tug was moored with its port side alongside its sister ship Sea Echo. Just before 11:00 hours a third tug, the Sea Bronco, came alongside the Sea Bulldog on the starboard side. All three tugs belonged to the same shipping company.

The towing gear was used to moor the Sea Bronco. The first mate of the Sea Bronco was on the work deck of the Sea Bulldog to assist. He also helped to transfer the mooring lines. The Sea Bronco used the towing line to bring the ship firmly alongside. The captain of the Sea Bronco was operating both the engines and the control lever of the towing winch.

While the captain of the Sea Bronco was heaving the towing line, the first mate of the Sea Bronco was in the

snap-back zone. When the towing line became taut, the captain of the Sea Bronco was momentarily distracted and did not hear the calls of the crew of the Sea Bronco. He kept his hand on the lever of the towing winch, which continued to heave, causing the towing line to suddenly come to a halt and break. The first mate of the Sea Bronco was struck by the broken towing line on the right side of his head, and fell unconscious to the deck. An ambulance was immediately called, which took the injured crewmember to an air ambulance. He was admitted to hospital in Rotterdam.

Classification: *Serious injury*

Fall into hold, Alamosborg, Bremerhaven, (Germany), 26 December 2016

On 26 December 2016 the Dutch freighter Alamosborg was moored in the port of Bremerhaven (Germany). A surveyor was using ultrasound equipment to conduct a

watertightness test on the ship's hatches. Hold 1 had already been tested and the surveyor requested the third mate to install the ultrasound transmitter in Hold 2. There, at around 11:45 hours, the third mate fell from a partially installed middle deck into the hold, some 10 metres below.

Initially the third mate's absence went unnoticed, but at a certain moment he did not respond to the radio call by the first mate who was in the ship's office together with the surveyor. At 11:53 hours he contacted the boatswain in his own language, who immediately responded. The third mate was found seriously injured on the tank top of Hold 2. He was hoisted out of the hold on a stretcher and taken to hospital by ambulance

Classification: *Serious injury*



Sea Echo, Sea Bulldog and Sea Bronco. (Photo: Seacontractors)

Incidents that were not extensively investigated

100 metres. At this time the Wilson Main was in the middle of the river. About 20 metres to starboard of the Wilson Main an inland ship was sailing on the same course and at the same speed. At that moment two other inland ships on the opposite course appeared on the radar of the Wilson Main, about 500 metres away. The river pilot judged the situation to be too tight, partly due to the limited width of the river, and tried to communicate with the two oncoming inland ships. He also asked the captain to reduce power to half ahead and then tried to turn to starboard. The captain was unable to understand the external communication, but saw that a tight situation was developing and asked a crewmember to prepare the anchor. At that moment, around

20:30 hours, the Wilson Main collided with the oncoming Aegir. Both ships were damaged and required repairs.

Classification: Serious

Chief engineer injured by grinder, Terra Plana, Taranto (Italy), 20 January 2017

The Dutch-flagged Terra Plana is a water-injection / dredging vessel. The ship has a plough equipped with a water-injection pump. This electric water-injection pump is powered and controlled via an umbilical cable that is

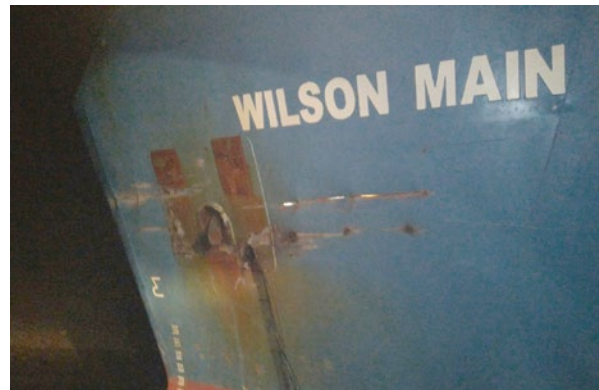
Fall from staircase causes serious injury, Lady Amalia, Denmark, 8 January 2017

On 8 January 2017 the cook of the Dutch freighter Lady Amalia fell from a staircase, which was almost three metres in height, and was seriously injured. The accident took place in Danish waters. The cook was taken by helicopter to hospital in Aalborg (Denmark), where he was operated for a basilar skull fracture, internal bleeding in the brain, a broken neck and broken ribs.

Classification: Serious injury

Collision between sea-river vessel Wilson Main and inland tanker Aegir, Tiel, 17 January 2017

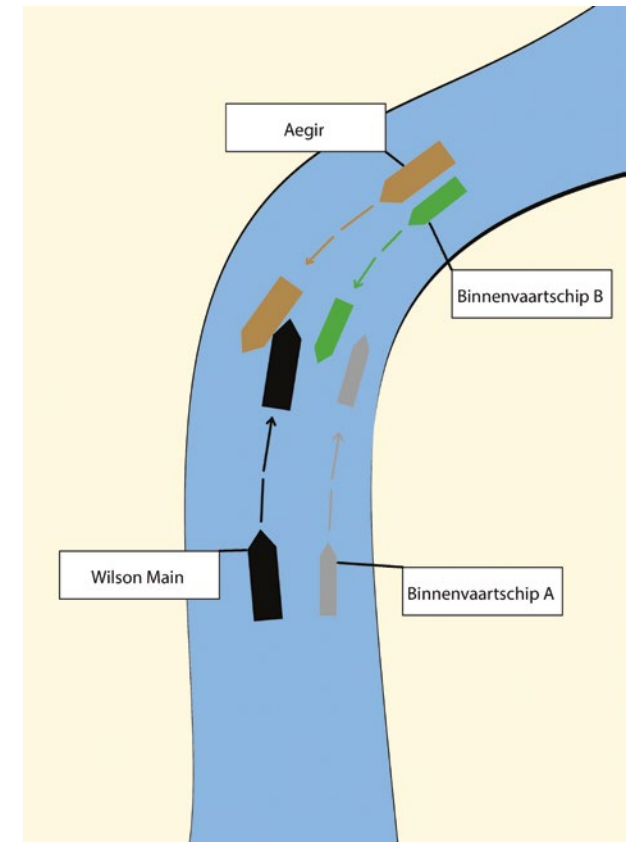
On 17 January 2017 the sea-river vessel Wilson Main was involved in a collision with the inland tanker Aegir. The Wilson Main, sailing under the flag of Barbados, was on the river Waal close to Tiel, with fair visibility. The width of the waterway was limited due to an unusually low water level. The captain and a river pilot were on the bridge. The ship was sailing on ECDIS maps and being steered by a river automatic pilot. The river pilot was communicating with other shipping in Dutch; the Russian captain could not understand this language. At around 20:20 hours visibility dropped dramatically to some



Damage to Wilson Main (Photo: ILT)



Damage to Aegir (Photo: ILT)



Situational sketch of the Wilson Main - Aegir collision.

transported with the ship underwater using a winch drum. The ship was engaged in a dredging project in Taranto and had incurred a fault in the umbilical cable. An external electrician had come on board to repair the fault and after an unsuccessful attempt it had been decided to replace the entire cable and to reconnect it.

Work on the cable began on 20 January 2017 at 9:15 hours. The electrician used a grinder to grind through the defective cable. The chief engineer was present to provide assistance. At the moment that the cable had almost been ground through, the chief engineer attempted to hold the already free-hanging cable away from the grinding disc, using his hand. The electrician had not requested this move. Just a moment



The drum with the umbilical cable (yellow) on board the Terra Plana.
(Photo: BosKalis)

later the grinding disc cut through the entire cable, causing it to snap, and it struck and injured the chief engineer's right forearm. The seriously injured chief engineer was taken to hospital by ambulance where he underwent surgery.

Classification: *Serious injury*

Injury to thumb by work with a circular saw, Wilhelmine, Rotterdam, 5 February 2017

On 5 February 2017 a crewmember on board the Maltese Ro-Ro ship Wilhelmine was sawing wooden beams with a circular saw. The beams were intended for making wooden struts. During the sawing one end of the beam was fixed in a vice, while the crewmember held the other end in his hand. He used his other hand to operate the circular saw. During the sawing the saw then jumped up and landed on the thumb of the hand the crewmember was using to hold the beam. As a result the crewmember incurred a flesh wound and a broken thumb. The ship was at a shipyard in Rotterdam during the accident.

Classification: *Serious injury*

Trapped foot, Beautrader, Mantanzas (Venezuela), 31 January 2017

The left foot of the third mate of the Dutch freighter Beautrader became trapped on 31 January 2017, between the deck and hatch of the second hold. As the hatch was slowly being brought into position, the third mate slipped and landed between the hatch and the deck. He alerted the crew, who immediately stopped work and then lifted up the hatch again. This freed the third mate's foot from under the hatch. He was taken to hospital where it proved that he had suffered a broken foot.

Classification: *Serious injury*

Collision between Coral Patula and Trueborn, Yosu (South Korea), 9 February 2017

On 9 February around 07:15 hours, in South Korean waters, a collision occurred between the freighter Trueborn sailing under the flag of Belize and the Dutch LPG tanker Coral Patula. The Coral Patula, which was lying at anchor, suffered damage to the bow above the waterline. As far as known from a unilateral statement, the Trueborn was completely unilluminated and as such not directly visible to the naked eye. Both radars on the Coral Patula had been switched off because the cargo tanks were being vented. Only at dawn did the contours become visible. The officer of the watch on the Coral Patula believed that the Trueborn was waiting for the pilot because the Coral Patula was at the edge of the approach to Yosu and in the days prior to the incident many ships had already passed. He thus paid less attention to the Trueborn because there was no indication whatsoever by lighting or day markers that the Trueborn was lying at anchor. The Trueborn drifted in the direction of the Coral Patula and initially did not take any action to prevent a collision. Following the accident Klasse, P&I and IL&T were all informed. P&I visited both ships. The captain of the Trueborn refused to make a statement. The next day the Coral Patula moved to the shipyard in Yosu and received permanent repairs there, and following approval by Klasse then departed to resume its voyage.

Classification: *Serious*

Trapped finger, SCH-81 Carolien, Mauritania, 9 February 2017

On 9 February 2017 the Dutch trawler Carolien was fishing off the coast of Mauritania. While the engineer was carrying out mechanical adjustments on board, his fingers became trapped. He was transferred to the Spanish hospital ship Esperanza del Mar and then taken to hospital in Las Palmas (Spain). The engineer was then repatriated.

Classification: *Serious injury*

Incidents that were not extensively investigated



Location of the accident on board the Sagasbank. (Photo: Wagenborg)

Broken leg, Sagasbank, Rochefort (France), 15 February 2017

On 15 February 2017 the Dutch freighter Sagasbank was moored at Rochefort (France). A crewmember was engaged in painting work on deck and was using a grinder for this purpose. At a certain moment he had to help with the hatch crane. The first mate was operating the hatch crane from the operating position on the crane. The crewmember was still engaged in removing the grinder to the forecabin and went up the starboard stairs from the main deck to the forecabin. He slipped on the stairs while the hatch crane was already close to him. The crewmember hit the hatch crane, broke his leg and had to be taken to hospital by ambulance.

Classification: Serious

Crewmember injured after disconnecting cargo hose, Coral Carbonic, Porvoo (Finland), 23 February 2017

On 23 February 2017 the Dutch CO₂ tanker Coral Carbonic was moored in the Finnish port of Porvoo to take on cargo. The ship was connected to the shore installation by a cargo hose and a gas return hose. Once loading had been completed the crew initiated the hose disconnection procedure. The crew members drained the hoses several times and disconnected them after receiving permission from the responsible officer via a radio. A crew member then placed a blind flange on the ship's manifold. After he had tightened several nuts and bolts by hand, the flange was blown off and struck the crewmember's face. An investigation commissioned by the shipping company revealed that although the pipeline was originally free of pressure, pressure had nonetheless built up by cargo residues within the pipeline. It was established that the hoses had been drained too quickly.

Classification: Serious injury

Engine failure on passenger sailing ship, Oosterschelde, Cap Verde Islands, 16 February 2017

On 16 February 2017 the passenger sailing ship Oosterschelde was on its way in the Atlantic Ocean from São Nicolau to Boa Vista on the Cap Verde Islands. The ship was motorsailing and the main engine was running at 1130 revolutions per minute.

At 9:15 hours a passenger alerted the captain to the fact that the engine exhaust had suddenly begun to emit smoke. It was established that the exhaust gas temperature was higher than normal, whereupon the engine speed was reduced and the engine was visually inspected. This inspection revealed nothing unusual. When the engine speed was subsequently increased again, black smoke came out of the exhaust and the engine stopped. Restarting proved possible but the engine ran irregularly and white smoke came out of the exhaust. At this point the engine was stopped. It later transpired that water was leaking from the turbine casing. The shipping company was contacted and, later in the day, it was decided to proceed under sail towards



Location of the accident on the Coral Carbonic. (Photo: Antony Veder)

Mindelo (São Vicente), where on 17 February 2017 the ship arrived under sail in the bay and anchored. It was found that water had entered the cylinders and that the entire engine block needed to be replaced. This incident occurred during the maiden voyage, with a new engine.

Classification: Serious

Freighter runs aground in river, Skagern, Göta älv (Sweden), 9 March 2017

The Dutch freighter Skagern ran aground on the river Göta in Sweden on 9 March 2017. The ship suffered technical problems (black-out), after which it ran aground to the south-west of the Trollhättan Locks. In the process the ship suffered a tear in its hull, leading to water entering the ballast tank. The water was pumped out using the pumps present on board. Before the ship could be recovered, part of its cargo of wood has to be removed. The cargo was loaded onto a pontoon by a



Oosterschelde. (Photo: Reederij Oosterschelde; Arthur op Zee)

mobile crane. This took around a week, after which two tugs took the ship to Trollhättan.

Classification: Serious

Loss of engine power, Lady Alida, Waterford (Ireland), 20 March 2017

On Monday, 20 March 2017 the propulsion plant of the Dutch freighter Lady Alida failed while the ship was sailing to Waterford in Ireland. It transpired that the coupling between the main engine and the gearbox had completely failed. The wind was blowing force 6 Beaufort from the south-west. Appropriate measures were taken on board and the British Coast Guard and the shipping company were informed. Rescue vessels from Penlee and Sennen Cove provided assistance. After the ship had anchored, the anchor began to drag. Rescue vessels once again sailed out. The Lady Alida was then towed by a seagoing tug to the port of Falmouth in Great Britain and



Skagern aground. (Photo: Swedish Maritime Administration)

moored there. While being towed there by the seagoing tug the ship was hard to steer, which among other things resulted in damage to the bulwark.

Classification: Serious

Injured by high-pressure hose, Noordam, Hobart (Australia), 20 March 2017

During cleaning work in the engine room on 31 January 2017, a crew member of the Dutch cruise ship Noordam in the port of Hobart (Australia), was injured by a water jet from a high-pressure hose. This happened at the moment that the crew member attempted to adjust the setting of the nozzle. Under high pressure, water penetrated the rubber gloves and resulted in water and air being trapped under the skin of his left hand and forearm

Classification: Serious

Incidents that were not extensively investigated

Failure of main engine, Lady Irina, Barents Sea, 25 March 2017

On 22 March 2017 the Dutch freighter Lady Irina departed from the port of Arkhangelsk (Russia), heading for St. Malo in France. On 25 March 2017 at 13:30 hours the oil mist detection alarm of the main engine sounded, after which the engine stopped. It proved impossible to restart the main engine. As a result it became impossible to manoeuvre the ship and it drifted around 20 miles off the coast in the Barents Sea. The same evening a towage connection was established with another ship of the same shipping company; at this time the wind was WSW force 5 Beaufort with a moderate swell, while the weather forecast predicted worsening weather. The tow arrived at the anchorage of Kirkenes (Norway) on 26 March at 16:30 hours, where the Lady Irina then anchored. At this time the port of Kirkenes had been closed due to weather conditions. The port of Kirkenes was finally reached the next morning. During the repairs it

transpired that the engine itself was in order and that a fault in various sensors had caused the engine failure.

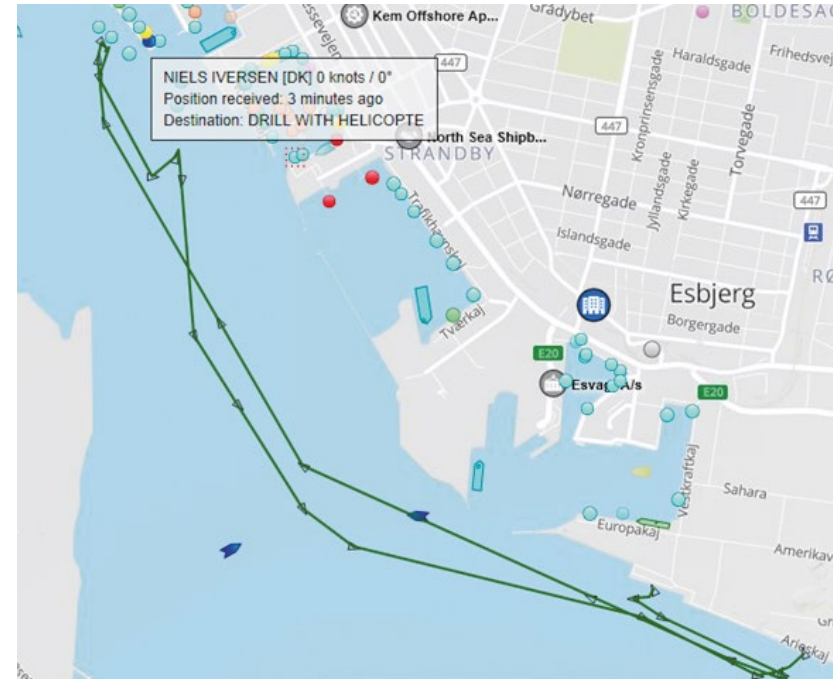
Classification: Serious

Collision between the container ship Maersk Genoa and the general freighter Dan Fighter on the Westerschelde near Borssele, 4 April 2017

The container ship Maersk Genoa, sailing under the flag of Hong Kong, and the Danish freighter Dan Fighter collided with each other on Tuesday 4 April 2017 on the Westerschelde near Borssele. The Genoa was sailing from the port of Antwerp and was outbound. The VTS had instructed the Dan Fighter to allow the Genoa to pass in front of it. The Dan Fighter was still sailing too fast and its bow struck the



(Photo: Maritime Herald)



(Source: Marine Traffic)

freighter Maersk Genoa in the side towards the stern of the latter. The Maersk Genoa incurred a tear above the waterline of around 10 metres in length and 1 metre in height. The damage to the Dan Fighter was minimal. Both ships then sailed to the Vlissingen roadstead and anchored there.

Classification: Serious

Collision with laid-up oil platforms, Rotra Vente, Esbjerg (Denmark), 10 April 2017

On 10 April 2017 the Dutch-flagged Ro-Ro ship Rotra Vente incurred a broken cooling-water line on the main engine after departing from Esbjerg. As a result, the main engine had to be switched off immediately. Due to the strong westerly wind and the tide, the ship then drifted back to the port, towards two moored drilling platforms (Maersk Resolve and Maersk Resolute). The ship's crew dropped the anchor to prevent further drifting, but to no avail. Anticipating an imminent collision the crews of both drilling platforms then decided to evacuate. The Rotra Vente struck one of the platforms and was jammed with

its mast under the helicopter platform. Two tugs and a pilot boat quickly arrived at the scene and kept the ship under control. After the ship had taken on ballast water the mast was freed from the drilling platform and it was then towed to the port. The damage was limited.

Classification: Serious

Mate injured, Coastal Chariot, Algeciras (Spain), 15 April 2017

The Coastal Chariot is a Dutch floating workshop equipped with hydraulic cranes. On 15 April 2017 the vessel was moored at Algeciras in Spain. For the purpose of a load test for the towing winch, the towing line (length 600 metres) needed to be removed from drum of the towing winch. In order to 'wind over' this towing line a winch with a drum had been installed on the shore. The ship was moored at a right angle to the quay, with the front facing the quayside. The quayside winch was aligned with the towing winch on board. Preparatory work was carried out in the morning and part of the afternoon. Six persons were assigned for winding over

the line, each with his own task, and they used three radios to communicate with each other.

The operation began at 14:00 hours. All members of the team were equipped with safety shoes, a helmet and safety goggles. The work started well: the captain unwound the winch without the line being pulled taut and it was wound onto the drum of the quayside winch. At 15.10 hours, when some 450 metres of towing line had been transferred from the ship to the quayside winch, a cast-iron component of the coupling of the quayside winch broke. This component struck the face of the first mate, breaking his safety goggles, which absorbed part of the blow. After being admitted to hospital it was found that he had suffered a broken jaw.

Classification: Serious injury

Electrician electrocuted during work preparations, Thialf, Rotterdam, 16 April 2017

On board the Panamanian crane ship Thialf the third electrician, while preparing for work in the starboard crane, suffered a shock of 4160 volts, resulting in third-degree burns to his hands. The electrician, who was still conscious, was then taken to a nearby hospital.

The electrician had been ordered to lay a fibre optic cable from the engine room in the starboard crane to the cable compartment under the crane. The fibre optic cable needed to be routed through an iron pipe to the area below, where the cable had to be hung in a bundled state so that it could be further laid and connected at a later stage. The accident took place during preparations for work in a high-voltage space, prior to the laying of the cable.

Classification: Serious injury



Thialf moored on the Caland Canal, Rotterdam.

The Dutch Safety Board in four questions

1

What does the Dutch Safety Board do?

When accidents or disasters happen, the Dutch Safety Board investigates how it was possible for them to occur, with the aim of learning lessons for the future and, ultimately, improving safety in the Netherlands. The Safety Board is independent and is free to decide which incidents to investigate. In particular, it focuses on situations in which people's personal safety is dependent on third parties, such as the government or companies. In certain cases the Board is under an obligation to carry out an investigation. Its investigations do not address issues of blame or liability.

Recently the Dutch Safety Board reported about the air traffic safety at Amsterdam Schiphol, about earthquake risks in Groningen and about a lifting accident at a building site in the city centre of The Hague.

2

What is the Dutch Safety Board?

The Safety Board is an 'independent administrative body' and is authorised by law to investigate incidents in all areas imaginable. In practice the Safety Board currently works in the following areas: aviation, shipping, railways, roads, defence, human and animal health, industry, pipes, cables and networks, construction and services, water and crisis management & emergency services.

3

Who works at the Dutch Safety Board?

The Safety Board consists of three permanent board members. The chairman is Tjibbe Joustra. The board members are the face of the Safety Board with respect to society. They have extensive knowledge of safety issues. They also have wide-ranging managerial and social experience in various roles. The Safety Board's office has around 70 staff, of whom around two-thirds are investigators.

4

How do I contact the Dutch Safety Board?

For more information see the website at safetyboard.nl
Telephone: +31 70 - 333 70 00

Postal address
Dutch Safety Board
P.O. Box 95404
2509 CK The Hague
The Netherlands

Visiting address
Lange Voorhout 9
2514 EA The Hague
The Netherlands



DUTCH
SAFETY BOARD

Credits

This is a publication of the Dutch Safety Board. This report is published in the Dutch and English languages. If there is a difference in interpretation between the Dutch and English versions, the Dutch text will prevail.

July 2017

Photos

Photos in this edition, not provided with a source, are owned by the Dutch Safety Board.

Source photo frontpage:
photo 2: Arklow Shipping