



DUTCH  
SAFETY BOARD

## Investigations

The Dutch Safety Board has a legal obligation within the shipping sector to investigate serious and extremely serious incidents involving Dutch seagoing vessels. This obligation also applies to investigating serious and extremely 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 2015 - April 2016



**Past investigations conducted by the Dutch Safety Board have made it clear that failure to adhere to regulations plays a role in many shipping accidents. They further demonstrate that safety can be improved by considering risks. This means that all employees, shipping company staff and crews alike, must take stock of the risks on board in order to prevent incidents. The present report describes what this entails.**

The report published in April about the capsizing of two hopper barges answered the question of whether there are structural safety problems in the transfer of spray sand on open water. Captains tend to assume that their ships are stable enough for open water, though they often lack the knowledge necessary to make this judgement. Consequently, the risks of loading on open water are systematically underestimated.

In the recent period, three new investigations have been launched. The first concerns a fatal accident due to entrapment on a trawler and focuses on the responsibilities of the crew. Under specific investigation is the responsibilities of crew when procedures are not described in advance and knowledge is acquired through experience. The second investigation concerns a collision between a tanker and a freighter at an anchorage in the Port of Rotterdam off the coast of Ouddorp. Third, and last, the Dutch Safety Board went on-site in Greece, where a freighter ran aground in shallow water and had to be declared a total loss.

Tjibbe Joustra, *chairman Dutch Safety Board*



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# Lessons learned and key objectives

In this Shipping Occurrences Report, the Dutch Safety Board presents 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 2015 and 1 May 2016.

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 Safety Board's priorities.

Occurrences in this Shipping Occurrences Report

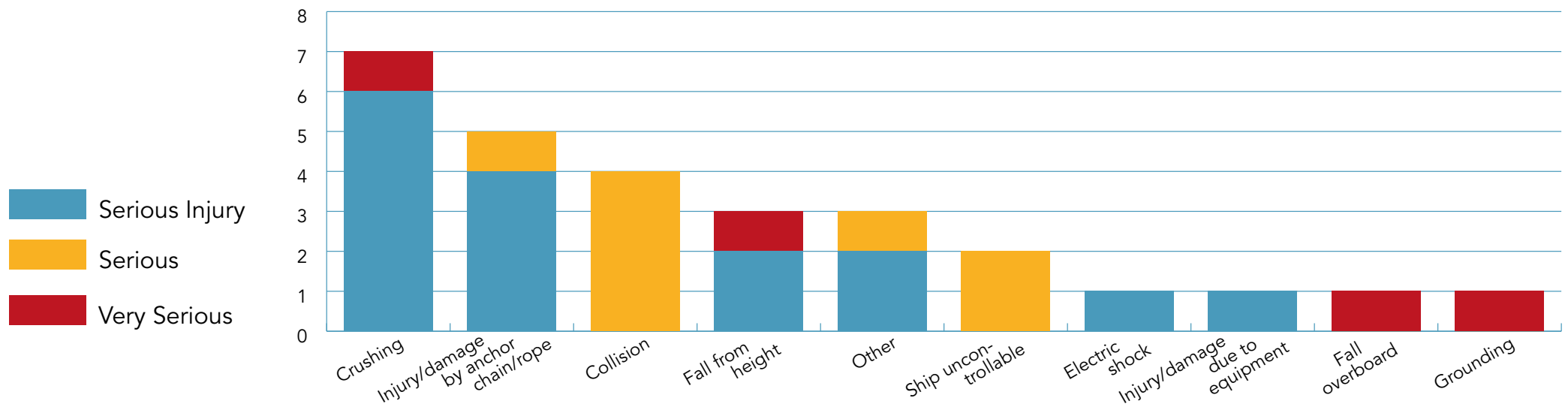


Figure 1: Accidents classified as Very Serious, Serious or Serious Injury between 1 November 2015 and 1 May 2016, categorised according to type.

## Priorities

The Dutch Safety Board has formulated three focus areas as it has been established that these types of accidents frequently occurred in the last two periods (November 2014 - April 2015 and May -October 2015):

- **Falls from height as a result of loading and unloading with a crane (*no incidents in this period*).**
- **Piloting incidents (*six incidents in this period*).**
- **Mooring incidents (*nine incidents in this period*).**

The incidents included in this Shipping Occurrences Report could happen to anybody working within the maritime sector. The Dutch Safety Board conducts investigations following an accident. The reports published by the Dutch Safety Board in relation to these investigations are intended to prevent the same incidents from happening again. The suffering caused by these incidents can have serious personal or other consequences. The question of how we can proactively approach safety rather than reactively remains a vital one. On the one hand, there is the human element, i.e. someone making a mistake, while on the other hand, humans are the only factor that can help increase safety levels.

The Safety Board believes that the continual consideration of risks in the workplace is the best way to boost safety:

**'Feeling safe by not feeling safe!'**

Every employee at every organisational level must continually consider what risks could be present. Seeking out and resolving errors on the shop floor is certainly the easiest way and gives *desired* results in the short term, but in the long term you can end up paying the price. Examples of short-term responses are the implementation of new rules, or firing/suspending staff in order to ensure the same incident is not caused by the same employee. However, this does not change the circumstances in the workplace, which means the same incident could be caused by another employee in the future.

## Deviation from regulations

In the previous edition of the Shipping Occurrences Report, the Dutch Safety Board observed that many incidents are the consequence of failure to comply with regulations. The same factor also applied in the last period. In practice, there is often a discrepancy between the working methods prescribed and the working methods practised.

Employees possess 'tacit knowledge': the so-called 'knowledge from experience' that has developed over the years and cannot be summarised in regulations. For example, an engineer could assess that a ship's engine is functioning correctly by listening to the sound it makes. The risk posed by this type of experience is that it can result in workarounds: deviations from the regulations made by employees at their own discretion to allow them to work more efficiently. The Dutch Safety Board wishes to draw attention to the fact that such workarounds can also compromise safety. It is therefore important to be aware of these undesired actions.

These undesired workarounds are identified by asking what hinders or inconveniences the work and which actions are considered to be inefficient. The answers to these questions are provided by both the employees on the shop floor and the policymakers at the executive level. They record the undesired workarounds in order to subsequently improve and adjust the process. The final step is then to compare the process to the existing rules and adjust them if necessary.

It is important for the shipping organisation to use the conclusions that the Dutch Safety Board draws from incidents and *proactively* considers and promotes safety. Safety is the responsibility of all parties, from ship owners to software developers and from directors of shipping businesses to the sailors on board the ship. The Dutch Safety Board believes that safety awareness is boosted by continually questioning safety in the workplace.

# Published reports

## Fatal accident during transfer at sea, the Annelies Ilena, South Pacific Ocean, 7 August 2014

On 7 August 2014, a fatal accident occurred on board the reefer vessel Cool Expresso. The accident occurred during the transfer of pallets at sea containing frozen fish from the trawler Annelies Ilena. At the end of the shift, a crew member of the Annelies Ilena was labelling on the last pallet on board the Cool Expresso. The pallet shifted and



The Annelies Ilena (left) and the Cool Expresso (right) during trans-shipment. (Photo: Parlevliet & Van der Plas B.V.)

trapped the crew member between the railing and the pallet, fatal wounding the crew member.

The Annelies Ilena (left) and the Cool Expresso (right) during trans-shipment. (Photo: Parlevliet & Van der Plas B.V.)

The Dutch Safety Board identified the following lessons to be learned:

- Despite the crew of the Annelies Ilena considering transfer at sea – including the use of a crane – to be risky, no safety meeting was conducted. The safety of crane work can be increased by identifying risks and bearing in mind the available safety measures during the conduct of the activities.
- If multiple ships are involved in an operation, then ensure that the crew of each ship is involved in the safety meetings.
- Ensure that as few people as possible are present in the crane's operating area when conducting activities with the crane. This can be done by ensuring that loading activities that are not directly related to the crane operations are conducted at a different time. Practical and commercial objections to such adjustments to the working process should not automatically prevail if the adjustments can increase safety.

**Classification:** Very Serious

The full report can be found on <http://onderzoeksraad.nl/en/onderzoek/2183/fatal-accident-during-transfer-at-sea-7-august-2014>

## Overboard during unfastening of container lashings, the Freya, the River Humber (United Kingdom), 3 September 2014

On the container ship Freya, flying under the Dutch flag, a crew member fell overboard while the ship was sailing along the River Humber towards its destination of Immingham (UK). The crew member in question was disconnecting container lashings prior arrival. Immediately after the accident, a rescue operation was launched with the assistance of various nearby vessels, unfortunately without success. To this day, the crew member who fell overboard has not been found. Amongst other matters, the investigation showed that the adjusted method of unfastening container lashings had not been recorded in the safety-management system. As a result, there was no internal or external safety monitoring with regard to this method. In addition, the commercial pressure involved in this scenario played a role in unloading the containers as quickly as possible, as a result of which the ships' crew had developed a tendency to adjust the container lashings at their own discretion.

Based on this, the following lessons can be learned:

- Rules exist for a reason – they are based on years of experience and continual refinement (regulations represent solidified knowledge). You therefore cannot simply deviate from the rules if another method seems more practical at first glance.
- When adjusting or developing new working methods on board a ship, it is important that the aspect of safety is critically assessed. The interplay between the shipowner and the crew will ensure that any adjustments will be viewed from a variety of perspectives. This increases the chances of safety risks being identified.

**Classification:** Very Serious

The full report can be found on <http://onderzoeksraad.nl/en/onderzoek/2118/crew-member-overboard-while-disconnecting-container-lashings-3-september-2014>



Stevedore secures a 5-metre-long lashing rod. (Photo: [www.portpictures.nl](http://www.portpictures.nl) – Danny Cornelissen)

# Published reports

prohibited, but in combination with the high sill, there was a risk of tripping and falling in the wrong place and at the wrong time.

- Except for the employee with whom the victim had been working in the hold, nobody else was aware that the crew member was going on deck via the hold entrance. No communication regarding this matter was conducted via the walkie-talkies.
- The design of the midship hold entrance may possibly have contributed to the victim's fall.

This accident is an example of an unfortunate series of events, although statistics show that accidents with hatch-cover cranes still take place, even after a campaign on this subject was conducted by the Human Environment and Transport Inspectorate (ILT). For this reason, the Dutch Safety Board is once again focusing attention on the lessons

that can be learned from previous investigations into accidents involving hatch-cover cranes. These lessons have been summarised in the Human Environment and Transport Inspectorate's recommendations and describe safe usage of a hatch-cover crane and the technical adjustments that need to be made (see page 15 and 16 of the report). The risks involved in working with hatch-cover cranes can be partly managed by implementing the aforementioned procedural and technical recommendations

**Classification:** Very Serious

The full report can be found on <http://onderzoeksraad.nl/en/onderzoek/2140/hatch-cover-crane-entrapment-9-june-2015>

## Hatch-cover crane entrapment, the Beauforce, Panama (Republic of Panama), 9 June 2015

On board the Dutch freighter Beauforce, a crew member became trapped under the hatch-cover crane. At that time, the hatch-cover crane was being used to move pontoons<sup>1</sup> in order to prepare the cargo holds for new cargo. The ship was anchored while waiting to pass through the Panama Canal. The incident resulted in the crew member's death.

At the end of the afternoon, the hatch-cover crane was carrying a pontoon to cargo hold 2 when one of the crew members in cargo hold 2 decided to leave his working area. He then climbed up the ladder of the starboard midship hold entrance to the deck gantry. When stepping over the sill to exit the gantry, he presumably tripped and fell forwards. As a result, he fell between the rear column of the hatch-cover crane and the hatch covers that were piled up next to the gantry.

The accident on board the Beauforce was influenced by the following factors:

- Use of the midship entrance while the hatch-cover crane is in operation was not procedurally

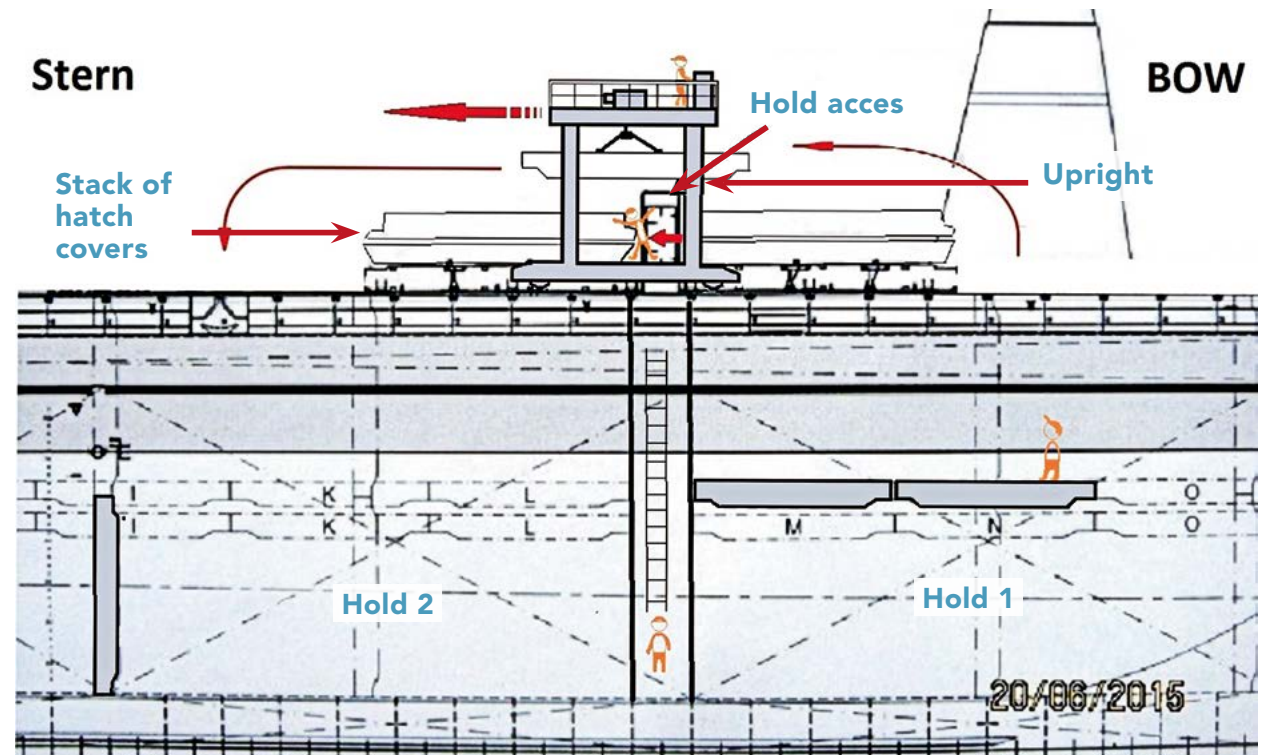


Illustration of the accident with the hatch-cover crane. (Source: Focus Shipmanagement)

1 Pontoons were used as a middle deck and bulkheads to separate and safely stow the cargo.

## Capsizing barges, the Rick and the Willem, Western Scheldt River (the Netherlands), 6 February 2015 and 30 March 2015

On 6 February 2015, the Rick capsized when loading spray sand. The captain was killed, although the two other crew members survived the accident. On 30 March of the same year, the Willem capsized on the Western Scheldt, also during the loading of spray sand. The crew was able to abandon the ship on time. The similarities between both accidents were cause for the Dutch Safety Board to consider whether there may be structural safety problems regarding the transfer of spray sand on open water.

The Rick was capsized by 'a fateful series of events'. The movement of the ship, a minor collision with the sand dredger and a shifting cargo caused the ship to capsize. Collisions occur every now and then, barges have to manoeuvre and shifting cargoes are not abnormal. However, all of these circumstances amplified each other in the same direction and the Rick was not stable enough to cope with it. During loading, the Willem was flooded with water, which caused the ship to become more unstable and to capsize. The Dutch Safety Board assumes that the Willem could have been saved if a watertight partition had been installed between the compartments.

Measurement of the Rick.



During the conversion of the capsized barges the Rick and the Willem, no calculation was conducted to assess whether they were strong and stable enough for open water. According to the calculations carried out by the Dutch Safety Board, the Rick's stability was 'not ample'. The same would have applied for the Willem if the ship had been in good condition, but it had been poorly maintained and leaks made it even more vulnerable. Both ships were being loaded on open water with semi-fluid spray sand, a heavy load that is difficult to manage if it starts shifting.

In a report published at the end of April, the Dutch Safety Board identifies weak points in the system. Approximately 350 barges operate in the Netherlands, a significant portion of which are converted pusher tugs.

Certification is no guarantee of the safety of barges operating on open water. Certification is intended to monitor the technical status of ships and to evaluate whether they comply with legal requirements. No hard criteria are established in law, although it is stipulated that inland vessels must be 'in accordance' with the work for which they are intended. The Human Environment and Transport Inspectorate (ILT) issues the required certificate, although it has been outsourcing part of the work since 2013. The ILT restricts itself to monitoring the commercial companies that conduct the inspections, and therefore has less insight into what occurs in practice. The Dutch Safety Board would like to call this arrangement into question. The sector does not do much on its own initiative, and the inspectorate is at a distance. It would seem that the emphasis needs to be on enforcement, yet the ILT only comes on board to check that the captain is complying with the rules. This is not an effective means of risk control. Barges that work on open water are not obliged to comply with any additional requirements regarding strength and stability. The certification body therefore pays no additional attention to this matter.

If, following a conversion or significant renovation, barge owners wish to know whether their ships are stable enough for the loading of spray sand on open water, then they must carry out a stability check at their own expense. During this kind of renovation, the design agency will only carry out this kind of calculation if the owner requests it, but experience tells that shipowners only make investments that are absolutely necessary, i.e. if the requirements they must comply with are explicitly

formulated. The investment in a stability calculation is not made because the owner knows neither the certification body nor the insurer will ask for one. Captains are quick to assume that their ship is stable enough for open water. Knowledge and experience of the sector is generally passed down from father to son with a prevailing sense of 'we have always done it this way'. Explicit knowledge is often lacking, and the inspectorate does not require it. As a result, the risks of loading on open water are systematically underestimated.

The Dutch Safety Board has come to the conclusion that policy is based on the assumption that barge owners take their responsibility for safety seriously. However, they are not encouraged to improve management of safety risks in any way whatsoever. Owners do nothing because they are not required to do anything and certification bodies do nothing because the law does not prescribe any assessment criteria. Ultimately, no action is taken.

The Dutch Safety Board offers no answer to the question of how legal assessment criteria for the stability and strength of barges should be formulated. It is the duty of the Ministry of Infrastructure and Environment to take command of the situation and involve the entire sector in specifying the currently open standards. In the 'Capsizing barges' report, the Safety Board restricts itself to one recommendation to the Minister: 'Establish a process within which the inspectorate – in collaboration with shipowners, insurance companies and sector associations in the inland-navigation sector – guarantees the safety of barges that load spray sand on open water by ensuring that during renovation or conversion of a barge, the stability and strength is assessed and that use of the ship on open water is taken into account.' To this, the Dutch Safety Board would also add that it expects the parties involved to inform the owners of converted vessels regarding the possible risks of loading on open water.

**Classification:** Very Serious

The full report can be found via <http://onderzoeksraad.nl/en/onderzoek/2112/capsizing-barges>

# Investigations started

## Fatal accident due to entrapment, trawler, Vlissingen (the Netherlands), 20 November 2015

A crew member of this trawler, which was sailing under the flag of the Netherlands, became trapped between the forecastle and the pulse fishing gear. The crew member was rushed to the hospital, but died. Presumably the ship tilted and the crew member was unable to get out of the way in time. At the time of the accident, the ship was in the port of Vlissingen.

The Dutch Safety Board is conducting an investigation into this accident, within which the emphasis is on the responsibilities of the crew in the event that procedures are not recorded in writing and knowledge transfer is conducted via experience.

**Classification:** *Very Serious*

## Collision at an anchorage, a freighter and a product tanker, near the Meuse River, (the Netherlands), 8 February 2016

In the afternoon of 8 February, a collision took place between a product tanker and a freighter at anchorage 4 East (off the coast near Ouddorp). The collision took place during stormy weather (gale force 8 – 9). Both ships had been anchored near each other for some time, waiting for a mooring berth to become available in the port of Rotterdam. At this anchorage, the captains select a suitable place to drop anchor themselves. The crew had heard about the approaching storm via weather channels. As a result of the storm, the anchors of several ships, including both ships involved in the incident, began to drag. The captain of the product tanker decided to start the engines and raise the anchor. Soon afterwards, the product tanker collided with the freighter. Both ships were badly damaged. The product tanker suffered a 15-metre-long breach at the level of the engine room.



Beam trawl on deck of fishing vessel.



Damage to the freighter as a result of the collision. (Photo: Shipping company)



The freighter's bow was damaged above the waterline. No one was injured. After the collision, the freighter immediately entered the port of Rotterdam. The product tanker remained at sea for another day, entering the port of Rotterdam the day after the storm. Both ships had to go to a shipyard for repairs.

The Dutch Safety Board is conducting an investigation into this accident. This investigation will examine the supervisory role of the vessel traffic centre, the procedures and arrangements on board and between anchored vessels and the interplay between safety and security in the port.

**Classification:** Serious

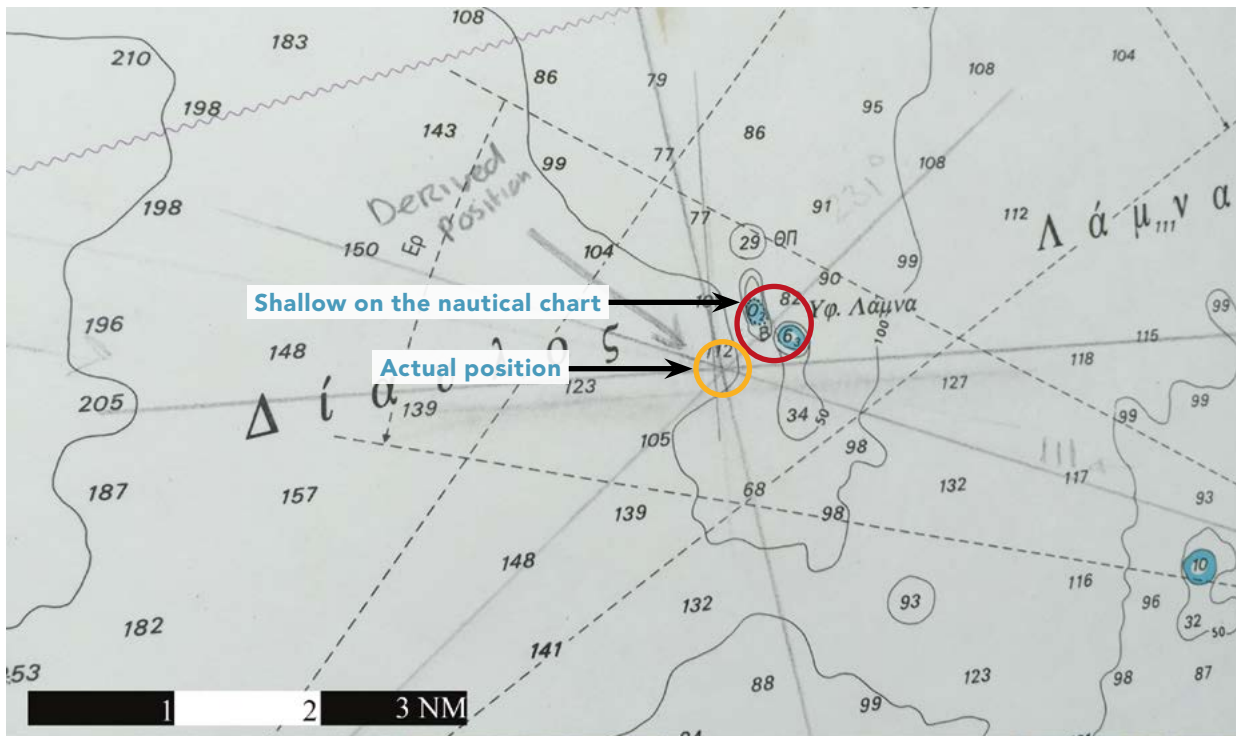
### Freighter runs aground, Lamnas Reef, 2.8 NM from Lesbos (Greece), 20 April 2016

On 20 April 2016, a freighter sailing from Eregli, Turkey to Aliaga, Greece under the flag of the Netherlands ran aground in shallow waters and was eventually declared a total loss. The ship was loaded with 4,400 tonnes of steel products. The ship was using the Electronic Chart Display Information System (ECDIS), was exempt from the obligation to keep paper charts on board and was sailing with the aid of officially approved digital charts installed with the latest updates. The ship navigated along a shallow indicated on the chart. The depth of the shallow was indicated as 6.3 metres. As the ship was submerged to a depth of 5.8 metres, the captain decided to add a waypoint to the south of the shallow to enable the ship to pass at an appropriate distance. At 09:55, over

0.3 nautical miles from the shallow, the ship collided with solid rock and got stuck. As a result, all of the double-bottom tanks were breached, as was the engine room and the bow thruster-room. The depth indicated on the chart at the location of the collision was 122 metres. The Dutch Safety Board visited the site to gather information. The Electronic Navigational Chart (ENC) in the ECDIS displays the up-to-date Greek paper nautical chart for the area monitored by the Greek Hydrographical Service. The information on this chart does not match the data on the paper charts of the British Admiralty. This discrepancy is being examined during the investigation that is currently under way.

**Classification:** Very Serious

Left: Ship's position on the Greek chart. Right: Position of the ship on the British Admiralty's chart.



# Investigations started by foreign authorities with the Netherlands as a State with a significant interest

## Fatality after falling overboard, freighter, near the Wadden Islands (the Netherlands), 23 November 2015

At approximately 03:00 pm, a sailor on a Cypriot freighter with an entirely Polish crew fell overboard. On Monday 23 November, the ship was sailing in Dutch coastal waters near the Wadden Islands when the crew member fell overboard for unclear reasons whilst removing a refuse bag. The Coastguard immediately started a search-and-rescue operation. The crew member was found at 16:15 and brought on board a Dutch naval vessel. There, it was established that the sailor had died.

An initial investigation into the accident on board the ship indicated that the crew member had been in extremely poor physical health. Despite this, he was in possession of a recently issued Polish medical certificate that declared him to be in full health. The investigation is being conducted by the Polish investigating authority, and focuses in particular on the issuing of the medical certificate.

**Classification:** Very Serious

## Collision between two freighters, Lower Elbe River (Germany), 26 November 2015

Early in the morning, on the Lower Elbe near the mouth of the River Oste, a collision took place between a freighter sailing under the flag of the Netherlands and a freighter sailing under the flag of Gibraltar. No-one was injured. The Dutch ship sustained a 5-metre breach above the waterline. A pilot was on board both vessels. The German Federal Bureau of Maritime Casualty Investigation (BSU) began an investigation into this incident.

**Classification:** Serious, piloting incident



Cypriot freighter.

# Incidents that were not investigated extensively

## Personnel injury resulting from maintenance work, the *Zaandam*, General San Martin Port (Peru), 22 October 2015

A crew member sustained a hand injury during maintenance work on the cruise ship *Zaandam*, sailing under the flag of the Netherlands. This incident occurred in the General San Martin Port in Peru. During testing of the raft-crane limit switch, the crew member's finger became trapped. Another crew member activated the hoist button without checking that his colleagues were at a safe distance.

**Classification:** *Serious Injury*

## Fatality during line-crossing ceremony, the *Achtergracht*, equator, 14 November 2015

On Saturday 14 November 2015, a Filipino intern on the Dutch freighter the *Achtergracht* fell onto the gangway. He landed on his head, resulting in a fatal injury. This accident occurred during what is known as a 'line-

crossing ceremony'. This is a global tradition performed whenever a crew member or a passenger crosses the equator for the first time. As part of the ritual, the intern was to walk across a plank on the deck and jump off the end, where he would be caught by another crew member. However, the intern's jump from the end of the plank went wrong and they were unable to catch the intern. Instead, he fell off the deck onto the gangway. The fall resulted in the intern's death. At the time, the ship was sailing from Ilheus, Brazil to Amsterdam, the Netherlands and was sailing near the equator at a distance of 180 miles north of Cape Verde.

As the line-crossing ceremony was not part of the normal operations on board the ship, the Dutch Safety Board is not conducting any further investigation. The Safety Board does wish to highlight the risks involved during the conduct of this kind of maritime ritual.

**Classification:** *Very Serious*

## Serious injury caused by electric shock, the *Sea Golf*, Stavanger (Norway), 15 November 2015

On Sunday 15 November 2015, the Dutch tugboat *Sea Golf* was in the port of Stavanger sheltering from bad weather when a crew member decided to repair an electric heater. When connecting a self-made power cable, the victim was electrocuted and unable to let go of the cable. The master, who was standing close by, pulled the plug out of the socket. The victim was successfully resuscitated by the emergency services who had rushed to help. An internal investigation has been conducted by the shipping business and the investigation report has been sent to the ships.

**Classification:** *Serious Injury*



*The Sea Golf. (Photo: Ronnie Roberts)*

# Incidents that were not investigated extensively

## Injured by anchor-chain-cable stopper, the Nave Pyxis, Rotterdam (the Netherlands), 18 November 2015

On board the chemical tanker Nave Pyxis, sailing under the flag of Panama, the crew decided to raise the anchor that had begun to drag due to bad weather. However, during this activity, a crew member was injured by the anchor chain's cable stopper. By sailing forward, the captain attempted to reduce the strength of the anchor chain to enable it to be heaved. During the raising of the anchor, the wind changed direction with gusts of 55 knots. As a result, the ship turned side-on to the waves. It was no longer possible to heave the anchor and the captain ordered it to be secured once more. When securing the cable stopper, a great deal of force was imparted on the chain and it began to unravel again. The cable stopper broke and injured the crew member. As a result of his fall, he suffered a serious back injury and was transported to the hospital by helicopter.

**Classification:** *Serious injury*

## Collision with a bollard during mooring, the Mito Strait, Rotterdam (the Netherlands), 18 November 2015

On Wednesday 18 November 2015, the container ship Mito Strait, sailing under the flag of Antigua and Barbuda,

collided with a bollard during mooring. The collision caused a breach in the hull on the starboard side at the level of the engine room and the small lubricating-oil tank. This was a threat to the vessel's seaworthiness, and as a result it was not permitted to sail until repairs had been made. In the end, the damage was not as serious as first thought and the collision had not caused a dangerous situation.

**Classification:** *Less Serious, mooring incident*

## Collision between a trawler and an oil tanker, the TX-29 Helena Elizabeth and the Stavfjord, near Den Helder (the Netherlands), 24 November 2015

On Tuesday 24 November 2015, a collision occurred between the Norwegian oil tanker Stavfjord and the Dutch trawler TX-29 Helena Elizabeth. The collision occurred in the traffic separation scheme near Den Helder. As a result, the starboard bow of the TX-29 was damaged and it lost its fishing gear. The Norwegian tanker continued sailing with unknown damage.

**Classification:** *Serious*

## Fall from ladder in cargo hold, the Delphinus J, Moerdijk (the Netherlands), 26 November 2015

During work on board the Delphinus J, sailing under the flag of Antigua and Barbuda, a crew member fell from a ladder and was seriously injured. The ship had just unloaded a cargo of copper ore and was still in the port of Moerdijk. The crew member was cleaning up the hold and standing on a ladder on a middle deck. For unknown reasons, he fell from the ladder onto the top of the tank, a fall of more than six metres.

**Classification:** *Serious injury*

## Collision following a black-out during mooring, the Serval and the Nexus, Eemshaven (the Netherlands), 28 November 2015

During the mooring procedure on board the tug Serval, sailing under the flag of the Netherlands, the electrical power failed (black-out). As a result, the tug collided with the supply vessel the Nexus, also sailing under the flag of the Netherlands. This incident did not result in serious damage to the ship, bodily harm or environmental damage.

**Classification:** *Less Serious, mooring incident*

Damage to TX-29. (Photo: Human Environment and Transport Inspectorate (ILT))



### Contact damage during mooring, the WES Carina, Rotterdam (the Netherlands), 29 November 2015

On Sunday 29 November 2015, the container ship the WES Carina, sailing under the flag of Antigua and Barbuda, collided with a container crane upon leaving the mooring berth. Both the crane and the port bow of the WES Carina were slightly damaged. At the moment of the collision, a pilot was on board.

**Classification:** *Less Serious, mooring and piloting incident*

### Injury during shifting berth by loosening rope, the Lelystad, Algeciras (Spain), 12 December 2015

A Dutch crew member was injured during loosening the rope of the Dutch trailing suction hopper dredger Lelystad in the port of Algeciras in Spain. He was helping to shift berth of the ship when a rope came loose from the warping end and struck the crew member's leg. Following the accident, the injured sailor was admitted to the local hospital and was transferred to the Netherlands a few days later.

**Classification:** *Serious Injury, mooring incident*

### Trapped by big bag, the Hunzedijk, Bay of Biscaye, 14 December 2015

On board the Hunzedijk, sailing under the flag of the Netherlands, a sailor got his foot trapped between a big bag and a ladder. This was due to the big bag shifting on the rear deck while the sailor was working there. The sailor sustained injuries to his foot. Once the crew had gained information via the Radio Medical Service, they decided to stitch the wound on board. The ship continued on its voyage to Ceuta, where a doctor examined the wound. The doctor did not consider hospital admission to be necessary. However, the sailor was incapacitated for work and disembarked in Ceuta.

**Classification:** *Serious injury*

### Medical evacuation, the ARM-20 Geertruid Adriana, North Sea, 15 December 2015

On 15 December 2015, a Belgian search-and-rescue unit evacuated one of the crew members of the trawler ARM-20 Geertruid Adriana, sailing under the flag of the Netherlands. The crew member had sustained a considerable flesh wound to his thigh. The search-and-rescue unit flew the victim from the ship to a hospital.

The Dutch Safety Board has not received any additional information regarding this incident.

**Classification:** *Serious Injury*

### Injury due to high wave, the Vlieborg, Atlantic Ocean, 15 December 2015

The Vlieborg was sailing from Oxelosund, Sweden to Wilmington, USA. During this voyage, two sailors were thrown to the deck by a high wave that 'picked them up' and threw them against the structure of the boat. One of the sailors was seriously injured, the other sustained minor injuries. Three days later, on 18 December, the sailors disembarked at the Spanish port of Vigo.

**Classification:** *Serious injury*

### Collision while manoeuvring, the Abis Dublin and the Sonche Trader, Bremerhaven (Germany), 15 December 2015

In Bremerhaven, the freighter Abis Dublin, sailing under the flag of the Netherlands, collided with the container ship Sonche Trader, sailing under the flag of Portugal. At the time, the Abis Dublin was manoeuvring in order to moor. The Sonche Trader was moored behind the Abis Dublin. The collision caused a roughly two-metre breach in the container ship's stern and two dents in the Abis Dublin. There was a pilot on board the vessel.

**Classification:** *Less Serious, mooring and piloting incident*

### Engine failure and loss of deck cargo, the Koningsborg, near Ouessant (France), 31 December 2015

In the early morning at around 05:25 am, the freighter Koningsborg, sailing under the flag of the Netherlands, suffered irreparable damage to its propulsion system. The ship contained a cargo of wood and was on its way from Walsum, Germany to Bizerte in Tunisia. At the time, the ship was 18 NM to the west of the French island of Ouessant. The failure of the engines rendered the ship impossible to control. As a result, a large portion of the deck cargo fell overboard, although the stability of the ship was maintained. A distress signal was sent out. The French Coastguard sent tugs to assist, which reached the ship during the course of the afternoon. The Koningsborg was then towed to the port of Brest.

**Classification:** *Serious*

### Collision during mooring, the MS Crownbreeze and the Stornoway, port of Delfzijl (the Netherlands), 3 January 2016

In the port of Delfzijl, a collision occurred between the Dutch seagoing vessel Crownbreeze and the moored inland vessel Stornoway, also sailing under the flag of the Netherlands. The Crownbreeze had sailed in from sea with a pilot on board and was attempting to moor. The Stornoway had already moored nearby. During manoeuvring, the Crownbreeze collided with the Stornoway several times, causing minor material damage.

**Classification:** *Less Serious, mooring and piloting incident*

## Incidents that were not investigated extensively

### Towing line snapped, the Smit Elbe, port of Rotterdam (the Netherlands), 14 January 2016

At the end of the afternoon at around 05:30 am, a towing line on board the tug Smit Elbe, sailing under the flag of the Bahamas, snapped in the port of Rotterdam (the Botlek). The tug's assignment was to assist a departing seagoing vessel from the Mississippi haven in Rotterdam, and it was using the Dyneema Kevlar rope to do so. The towing line was secured by two crew members on board, and a little later the order was given to prepare the towing line and begin towing. Shortly after, the tow-cable snapped. The tow-cable shot back towards the tug and smashed the windows on the side of the bridge where the captain was at the wheel. The captain and a sailor on deck were injured by broken glass. The shipowner (Smit/Boskalis) initiated an investigation that found that the towing rope snapped due to abrasion against the hawse-hole on board the seagoing vessel.

**Classification:** Serious, mooring and piloting incident

### Collision during mooring, the Golden Ruby and the Frontier Island, IJmuiden (the Netherlands), 26 January 2016

In the Buitenhaven in IJmuiden, a collision occurred between the bulk carriers Golden Ruby and Frontier Island, both sailing under the flag of Hong Kong. At the time, the Golden Ruby was mooring at the Tata Steel outer quay. The ship performed a manoeuvre that caused a collision with the Frontier Island, which had already moored. The Golden Ruby sustained a considerable dent in its stern, while the Frontier Island's stern was breached.

**Classification:** Serious, mooring and piloting incident

Snapped towage connection and damage to ship. (Photo: Boskalis)



Dent in the stern of the Golden Ruby. (Photo: Human Environment and Transport Inspectorate (ILT))



Breach in the stern of the Frontier Island. (Photo: Human Environment and Transport Inspectorate (ILT))



### Collision with wave, the Fairmaster, North Atlantic Ocean, 1 February 2016

On Monday 1 February 2016, on its voyage to the Canary Islands, the Fairmaster ran into exceptionally bad weather off the north-west coast of Ireland. Gale force 11 had been reported, with an extremely heavy swell. As a result, the ship collided with an extraordinary wave, resulting in water in the forecabin, two broken windows and a large amount of water in the accommodation areas. In the accommodation areas, damage was caused to doors and bulkheads. When closing the windows during the bad weather, the boatswain sustained an injury to his hand. Following consultation with the Radio Medical Service, this injury was treated on board.

**Classification:** Serious

### Collision in a lock, the Nordana Sky and the Vera Rambow, Kieler Canal (Germany), 5 February 2016

When mooring in the lock in the Kieler Canal, the Dutch freighter Nordana Sky came into contact with the German freighter Vera Rambow. As a result, a breach was sustained in the stern of the Vera Rambow. The Nordana Sky sustained no damage. The Nordana Sky entered the lock last. The intention was to moor on the port side behind the Vera Rambow. On the starboard side was another ship, the Doggersbank. At the moment of the collision, there was a south-westerly wind blowing at gale force 4. As a result of the wind, the Nordana Sky was heading for a collision with the Doggersbank. An attempt was made to prevent this, but it resulted in a collision with the Vera Rambow instead.

**Classification:** Less Serious, mooring incident



Photos of the damage on board the Fairmaster. (Photos: Jumbo Shipping)

### Broken wrist due to a rope snapping back, the Rimini, La Coruna (Spain), 19 February 2016

In the mid-afternoon, at around 02:50 pm, an accident occurred in the Spanish port of La Coruna during mooring of the Dutch vessel Rimini. During the mooring process, the victim was going to unfasten the rear rope. However, at that moment, the ship moved due to the swell in the port, causing the roper to come loose from the winch. As a result, the rope snapped back and hit the crew member in the wrist, causing it to break in two places.

**Classification:** Serious Injury, mooring incident

The Vera Rambow. (Photo: Symphony Shipping)



## Incidents that were not investigated extensively

### Accident with hatch-cover crane, the Amadeus Amethyst, Antwerp (Belgium), 23 February 2016

At around 04:30 pm, the crew of the Dutch ship Amadeus Amethyst was preparing the ship for passage through the Albert Canal. For this purpose, the hatch-cover crane had to be moved from its normal position on the rails into a low position (known as the 'river position'). To do this, the columns of the hatch-cover crane, including part of the rail, were lowered into the gangway, with the hatch-cover crane supported by the spreader. The crew then removed the pins that hold the hatch-cover crane and rails in their normal position. One crew member was unable to remove the pins and decided to use a hammer. This caused one side of the hatch-cover crane to fall into the gangway, hitting the crew member on the head and causing a serious head injury.

**Classification:** Serious Injury

### Collision when sailing downstream on a river, the Lady Nora, Sutton Bridge (United Kingdom), 23 February 2016

When heading for the sea, the Dutch freighter Lady Nora collided with a pontoon. The ship was leaving the port through an open bridge with a pilot on board. While passing the bridge, the ship turned to port but was unable to maintain a stable course. The ship then collided with a pontoon and two moored pilot vessels. As a result of the collision, two people sustained minor injuries and the pontoon sank. The ship was undamaged and continued on its voyage to Vlissingen.

**Classification:** Less Serious, piloting incident

Position of the hatch-cover crane after the incident. (Photo: the Bock Maritiem)



Position of the hatch-cover crane on the starboard side. (Photo: the Bock Maritiem)



The sunken pontoon. (Photo: Marine Accident Investigation Board)





### Accident during operation of hatch-cover crane, the Abis Dover, Amsterdam (the Netherlands), 24 February 2016

At 04:05 pm, the Dutch freighter Abis Dover was in the port of Amsterdam when a crew member was injured while the hatch to the cargo hold was being closed. To seal the hold, the crew were using the hatch-cover crane to move hatches from the stern into the correct position above the hold. Three crew members were performing this operation: the crane driver, one crew member on the port side of the hatch-cover crane and one crew member on the starboard side. The crew member on the port side was ensuring correct positioning of the hatches above the hold. Communication between these crew members was conducted via walkie-talkies. The crew member on the port side tripped over a dovetail that was welded to the deck and grabbed hold of the column of the hatch-cover crane to regain balance. At that moment, the hatch was lowered and the crew member's glove was trapped between the moving roller and the column. As a result, the crew member lost the top of his index finger.

**Classification:** Serious Injury

Reconstruction of the position of the crew member's hand during the incident. (Photo: Abis Shipping)



### Collision in a lock, the Ardea and the Sundstram, Terneuzen (the Netherlands), 27 February 2016

On Saturday 27 February 2016, the Dutch chemical tanker Ardea was moored in the lock at Terneuzen when the Norwegian chemical tanker Sundstram sailed into the lock. At that moment, the Sundstram's propulsion system failed and the ship collided with the Ardea. The Sundstram pushed past the Ardea and then went into reverse. The collision occurred at a speed of around 2.5 knots. The ships contacted each other in a side-to-side position. No spillage of hazardous substances, serious damage or injuries occurred.

**Classification:** Less Serious, piloting incident

Dovetail. (Photo: Abis Shipping)



### Injury during crane maintenance, the Arklow Bridge, La Pallice (France), 5 March 2016

At 04:45 pm, the Russian first mate on board the Dutch freighter Arklow Bridge sustained an injury to his right foot during maintenance work on a crane. The surface he was walking on was slippery as a result of moisture and dirt. He slipped, fell, and landed in the gangway several metres below. The first mate was taken to hospital.

**Classification:** Serious injury

### Medical evacuation, the Hermione, anchored near IJmuiden (the Netherlands), 11 March 2016

A medical evacuation was conducted near IJmuiden from the Hermione, which sails under the flag of Liberia. The incident occurred late in the morning. A crew member needed to replace the rope on a drum stored on deck. To make it easier to replace the rope, he hung the drum from chains at a height of approximately 20 cm above deck. However, the drum came loose and fell against the crew member's leg. Due to the nature of his injury, the victim was transported off the ship by helicopter.

**Classification:** Serious injury

## Incidents that were not investigated extensively

### Injury to a crew member's thumb, the Bow Star, Botlek harbour, (the Netherlands), 27 March 2016

During maintenance work on board the chemical tanker Bow Star, sailing under the flag of Singapore, the third engineer's thumb became trapped when replacing a cylinder in the main engine. As a result, the crew member lost his thumb and was taken to the hospital. During the maintenance work, the first engineer was operating the crane, as a result of which he was unable to see the third engineer. Presumably one of the glands on the cylinder rod came loose, trapping the crew member's thumb. At the time of the accident, the ship was moored in the Botlek harbour in Rotterdam.

**Classification:** *Serious injury*

### Trapped under plates, the Maersk Kalmar, Xingang (China), 28 March 2016

The Dutch container ship Maersk Kalmar was approaching the Chinese port of Xingang. With the aid of the monorail, crew members were moving heavy steel plates from beside the accommodation area on the starboard side to a specially equipped storage area in the engine room. During the execution of this task, the decision was made to store the plates on deck instead, against the rear of the accommodation area. The plates that had already been moved were in too vertical a position, causing them to fall. This happened when a prop was removed in order to move the next plate into position. One crew member was trapped between the fallen plates and the edge of the hatch to the engine room. The other crew members pulled the plates off the victim with the aid of chains. The ship then sailed into port as quickly as possible and the crew member was taken to the hospital. The crew member sustained three damaged vertebrae as a result of the accident.

**Classification:** *Serious injury*



Position of the plates: the lashings were not in place at the time of the accident.

Location where crew member was trapped. (Photo: Maersk Ship Management BV)

### Loss of thruster and near-collision with a platform, the UK-19 Marja Netty, North Sea, 1 April 2016

While fishing, the UK-19 Marja Netty lost a thruster on the North Sea near the Q1 Helder platform. The crew of the trawler was collecting the nets when the ship suddenly went out of control. The Royal Netherlands Sea Rescue Institution (KNRM) and the Coastguard came to the scene because the UK-19 was drifting towards the Q1 Helder platform. The Coastguard sent a helicopter to evacuate the crew of the platform as a precautionary measure. A lifeboat from the Royal Netherlands Sea Rescue Institution towed the trawler away to prevent a collision with the platform. A nearby fishing cutter took over the towing duties and towed the ship to the port of Den Helder. Following an inspection by divers, it was found that the bolt that held the thruster in place was missing and the thruster was lying in the thruster tunnel.

**Classification:** *Serious*

### Trapped beneath hatch-cover crane, the Arklow Resolve, Amsterdam (the Netherlands), 4 April 2016

On board the Dutch freighter Arklow Resolve, a crew member became trapped under the hatch-cover crane. The ship was in Amsterdam when the crew noticed that the hatch-cover crane was making a strange sound when driving over the rails. The crew members therefore inspected the hatch-cover crane and moved it slowly along the rails. One crew member was walking backwards with the hatch-cover crane along the port side of the gangway and was looking to see if he could identify the cause of the sound with the aid of a torch. In doing so, he got his lower arm trapped and had to be treated in the hospital.

**Classification:** *Serious injury*

### Collision, the Bomar Juno and the Relume, IJmond harbour (the Netherlands), 8 April 2016

At around 05:00 pm, the Maltese chemical tanker Bomar Juno collided with the stationary tug Relume. At the time, the Bomar Juno was entering the IJmond harbour (Monnikendamkade Jetty 1) backwards. On several occasions, the captain told the pilot that it would be better to slow down, although the pilot told the captain that the ship's speed would be reduced by the current. After turning, the Bomar Juno backed towards the mooring berth. The pilot gave various forward and backwards orders in quick succession, at which point the Controllable Pitch Propeller (CPP) became unresponsive. Via the engine room, the order was given to switch to emergency control. The crew was unable to prevent the collision with the Relume, resulting in damaged paintwork. The crew used the bow thruster to propel the ship away. However, this caused the stern to briefly contact the quay. Eventually, the crew was able to regain control of the CPP, at which point the captain and the pilot decided to turn the ship around once again in order to come in with the ship's port side facing the quay. Once the ship was moored, the CPP was reset and subsequently worked as normal.

**Classification:** *Less Serious, mooring and piloting incident*

# The Dutch Safety Board in four questions

1

## What does the Dutch Safety Board do?

Efforts are being made in the Netherlands to minimise the risk of accidents and incidents as much as possible. When it nonetheless (nearly) goes wrong, a repetition can be avoided by carrying out a thorough investigation into the cause, separate from determining guilt. It is thereby important that the investigation is carried out independently of the parties involved. The Dutch Safety Board therefore chooses for itself what to investigate and thereby takes account of the independence of citizens from government bodies and companies.

Recently the Dutch Safety Board reported about the investigation into the causes of the crash of flight MH17, about Carbon monoxide - Understated and misunderstood danger and capsizing barges.

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 [www.safetyboard.nl](http://www.safetyboard.nl)  
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