



DUTCH
SAFETY BOARD

Investigations

The Shipping department of the Dutch Safety Board (DSB) has the legal obligation to investigate serious and very serious occurrences with seagoing vessels flying the Dutch flag. This obligation also exists when accidents occur with foreign ships within Dutch waters. These investigations are executed in accordance with the Statute Law on the Dutch Safety Board and EU Directive 2009/18/EC of the European Parliament and the Council of the European Union of 23 April 2009, regarding research and prevention of maritime accidents. A description of the occurrences suffices for serious accidents when the Dutch Safety Board assessed it is likely that there will be no significant lessons learned after further investigation. The primary goal of the Dutch Safety Board is the prevention of future accidents or the containment of damages thereof. When, during research, structural safety defects come to light, the Board can formulate recommendations to help prevent future occurrences. No research will be conducted regarding questions of guilt or liability.

Shipping Occurrences Report

November 2014 - April 2015

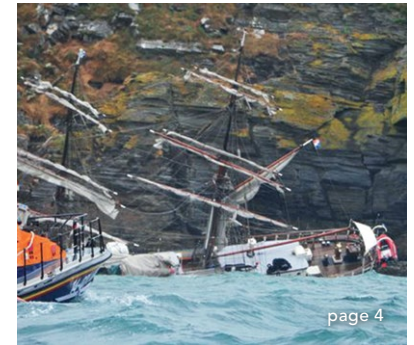


This is the first edition of the Shipping Occurrences Report by the Dutch Safety Board. This report will be published periodically. The shipping branch usually operates in the shadow of public attention as the silent motor of our economy. 35 percent of the goods in store are transported by ship, either over sea or by inland barge.

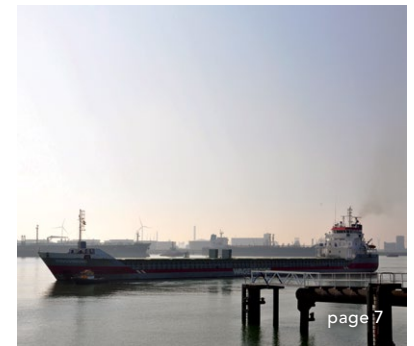
Working aboard a ship is a dangerous job, as crewmembers on board are confronted with risks on a daily basis. The safety management on ships is therefore of paramount importance. Adequate safety management consists of the professionalism of the ship's staff, both on the bridge and in the engine room, but also on how safety procedures are being carried out during daily work. A robust, effective safety culture has to be internalized completely by everyone on board, as well as by those supporting the ships on shore.

This first edition of the Shipping Occurrences Report includes eight summaries of recently published reports, eight new investigations announced in which the Dutch Safety Board is involved and it includes 25 accounts of occurrences that are not investigated comprehensively. This edition starts with lessons identified and priorities resulting from the contents of this first edition.

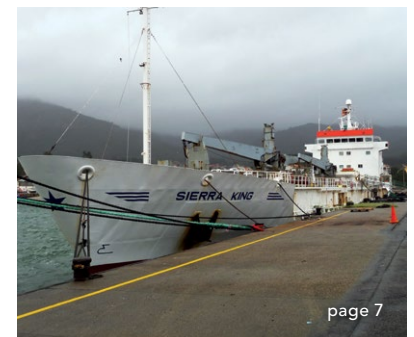
Tjibbe Joustra,
chairman Dutch Safety Board



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Lessons learned and priorities

In this Shipping Occurrences Report, the Dutch Safety Board presents descriptions of shipping accidents on board ships flying the Dutch flag, or accidents within the Dutch territorial waters. The current report deals with accidents between 1 November 2014 and 1 May 2015. Furthermore, the report contains an overview of regular accident reports published by the Dutch Safety Board during this period, and of accidents investigated by third parties in which the Netherlands can be considered as a substantially interested state.

Each accident is classified according to severity. The categories are in accordance with the EU directive 2009/EC/18:

Very serious: marine casualties involving total loss of the ship or a death or severe damage to the environment.

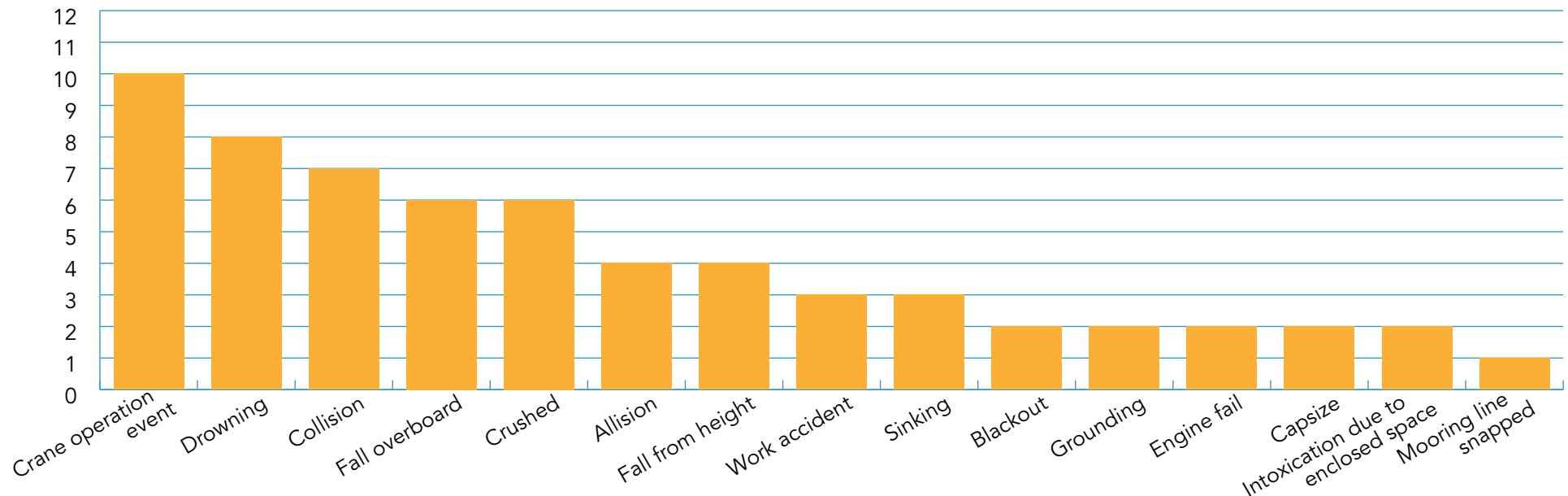
Serious: marine casualty to ships which do not qualify as very serious casualties and which involve for example a

fire, collision, grounding, heavy weather damage, suspected hull defect, etc., resulting in the ship being unfit to proceed, or pollution.

Less serious: marine casualty that do not qualify as very serious or serious.

In the Shipping Occurrences Report, only those classified as 'serious' or 'very serious' have been included.

Occurrences in this Shipping Occurrences Report



Graph 1. Occurrences between November 1 2014 and May 1 2015. Some occurrences count in more than one category.

Lessons identified from the incidents

The combined report of the 41 accidents occurred during this period provides the possibility to distil general trends and identify lessons to be learned. In order to achieve more effect from maritime accident investigations, the Dutch Safety Board will focus the upcoming year on these trends and identified lessons.

1. Maintaining the balance between commercial goals and safety

Commercial pressure on the shipping market is something the ship managers have to deal with as part of the job, especially during economic depressions. Understandably, choices have to be made when the business model is not profitable enough. However, the balance between commercial goals and safety is a delicate one and has to be kept in mind at all times. Ship managers should construct their organisation in such a way that safety is one of the key pillars of the organisational structure and should not be taken for granted or experienced as a burden. Good safety management leads to less accidents and improved efficiency.

2. Pay extra care to load- and unloading operations.

This report shows a high number of occurrences related to crane operations during load- or unloading. Accidents like falling overboard, falling from height or entrapment. These events can lead to serious injuries or even death.

Safety climate background study

Besides the identified lessons from the 41 accidents, it appears that occupational accidents continue to happen in the Dutch shipping sector. A lot of attention is drawn to serious accidents involving the loss of a ship resulting in serious injuries and loss of life. Accidents occurring during daily routine work draw less attention.

Investigations into these individual occupational accidents show that risks are sometimes underestimated and that there is a lack of focus on personal safety amongst seafarers. Because of that, the Dutch Safety Board started a background study into the safety climate in the Dutch shipping sector.

The study of the DSB shows that seafarers have a reasonable standard for personal safety, but that they accept safety risks as part of the job. Work is done with a 'hands on' mentality: for problems occurring during a routine job pragmatic solutions are used in suspected accordance with the principal of good seamanship. In the process of finding these pragmatic solutions risks are sometimes underestimated. This leads to short term solutions to solve a problem, however these solutions often lead to dangerous situations.

The occurrences included in this report show that seafaring can be a dangerous profession, where accidents do happen. One of the causes can be originated in the predominant safety climate on board ships.

Priorities:

Between November 2014 and May 2015, the following types of incidents occurred most frequently:

- Incidents involving loading and unloading operations using cranes;
- Fall overboard;
- Collisions.

Therefore, for the next report, the Dutch Safety Board will focus on these accidents. Any lessons which can be distilled from these investigations will be presented in the next edition of this report. As follow up to the safety climate background study, the DSB will also pay extra attention to the safety climate when conducting a safety investigation into an accident occurred on a ship.

Published Reports

Loss of sail training vessel Astrid, Oysterhaven (Ireland), 23 July 2013

On the 23rd July 2013 the Astrid, a 42 meter Dutch registered sail training passenger ship of steel construction and brig rigged, was anchored in Oysterhaven Anchorage, Co. Cork. On arrival at Oysterhaven, the Master and permanent crew of three, a temporary cook, a mentor and 24 trainees/passengers were on board of the ship.

On 24 July 2013, the ship was scheduled to be one of a flotilla of boats taking part in a sailing festival between Oysterhaven and Kinsale. The ship hauled anchor at 11:00 hours¹ and proceeded out of Oysterhaven, using engine power. At approximately 11:35 hours, sails were being hauled and the course was altered. Whilst hauling the sails the engine was still being used and the ship proceeded in a SW direction at a speed of approximately 3 knots.² At approximately 11:40 hours the engine failed and the Astrid ran aground on the coast, 0.7 NM³ North West of the Big Sovereign. The Big Sovereign is a small island just outside of Oysterhaven. Rescue services were alerted and all trainees and ship crew were safely evacuated. They landed onto Kinsale, without injuries. The ship sank, but was subsequently salvaged and deemed an economic write-off. The Irish Marine Casualty Investigation Board (MCIB) conducted a safety investigation and gave the following recommendations:

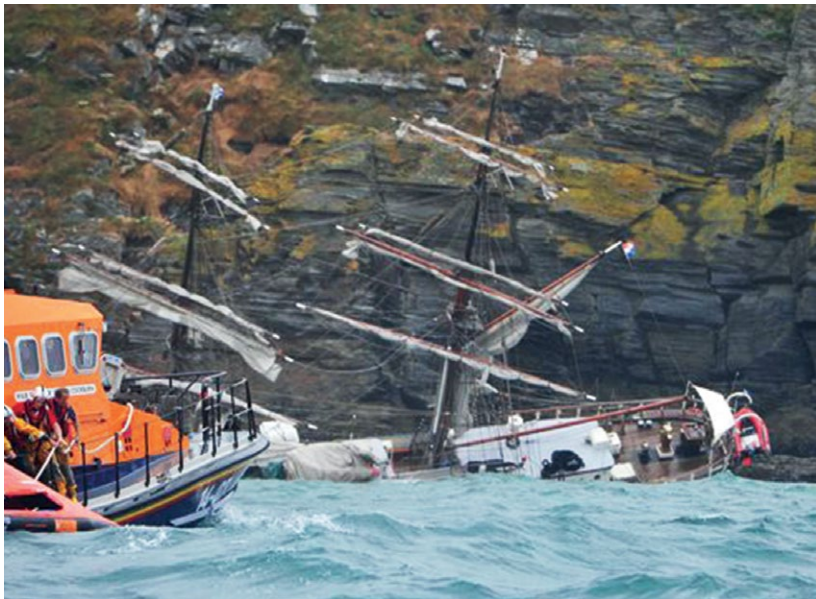
1. Operators of sail training vessels should ensure that ships engaged in international sail training voyages and carry passengers, comply with the requirements of a passenger vessel, as indicated in the International Conventions and European Union Law. The Minister for Transport, Tourism and Sport should explore mechanisms to ensure that sail training ships entering Irish waters and ports comply with the requirements of the International Conventions and European Union Law.
2. National sail training organisations or other organisations that arrange sail training activities should ensure that the ships act according to the necessary International Conventions, European Union Law and national requirements.
3. Ships engaged in any promotional activities must ensure that the Master has over-riding authority and that the Master should not compromise good passage

¹ Unless stated otherwise times represent local time.

² 1 knot = 1 NM/hour.

³ 1 NM (nautical mile) = 1,852 km.

STV Astrid. (Source: Maritime Casualty Investigation Board)



planning or the safety of the ship and persons on board when engaged in such activities.

Classification: Serious

A full report can be found at <http://www.onderzoeksraad.nl/en/onderzoek/2109/tall-ship-astrid-24-july-2013>

Collision guard ship and fishing vessel, Maria (IMO: 5205435), TX 68 Vertrouwen, Noordzee (Netherlands), 7 October 2013

On Monday morning the 7th October 2013 at 01:14 hours, the fishing vessel Vertrouwen (TX 68) collided with guard ship Maria about 21 NM south-west of Den Helder. The Maria was heading north in its 'guard zone' at low speed (about 1 knot). The Vertrouwen (TX 68) was sailing from Den Helder to its fishing area. She was heading west at a speed of 11 knots. Both vessels sailed under the Dutch flag. The Maria was seriously damaged by the collision, and water flooded into the vessel through an opening in its hull on the starboard side. This caused the Maria to sink. Two of the 5-men crew were rescued by the Vertrouwen (TX 68). The other three crewmembers who were onboard the vessel died. Their bodies were recovered later.



Guard vessel the Maria. (Source: Rederij Groen BV, Scheveningen)

The Vertrouwen (TX 68) suffered light damage to her bow, but was able to sail back to her home port without further problems. Due to the fact that the Maria sank with three of her crewmembers, much information was lost. Based on the available data, it is not clear why the collision between the Maria and the Vertrouwen (TX 68) took place. Neither the watchman on the Vertrouwen (TX 68), nor the helmsman on the Maria took any initiatives to avoid the collision. The reconstruction displayed no course alterations before the collision.

Classification: Very Serious

The full investigation report of this accident can be found at <http://www.onderzoeksraad.nl/en/onderzoek/2038/collision-between-a-guard-vessel-and-fishing-vessel-on-the-north-sea-7-october-2013>



Stern Uk268 and wooden fenderwall.

Fatal entrapment between quay and vessel during mooring, UK 268 Jacoba Alyda (IMO: 7813377), Lauwersoog (Netherlands), 4 December 2013

On the 4th December 2013, a fatal accident occurred on board the fishing vessel UK 268, the Jacoba Alyda. While mooring the vessel into the Dutch port of Lauwersoog, one of the crew members tried to step onto the quay in order to grab hold of the mooring line and fell between the quay and the vessel where he was crushed. The Dutch Safety Board conducted a safety investigation and published a report. The accident could take place because the vessel was not yet flush against the wharf when the crewmember made his presumed attempt to disembark. As there was no quayside assistance to help with mooring, the crew member had to jump on the quay himself. Due to the unawareness of the captain of the fall of the crewmember, the vessel was not kept clear from the wharf and therefore the crew member could become trapped between the vessel and the wharf. Due to the short space of time between the fall overboard and entrapment, the crew was unable to pull the crewmember back on board. Lessons learned from this accident:

1. Communication between disembarking crew and the captain during mooring is crucial, especially in situations where the captain does not have an unobstructed view of the disembarking crewmembers. Clear agreements regarding procedures of disembarkment and the use of walkie-talkies could be useful in this respect, as would be discussing in advance which manoeuvres are to be undertaken.
2. Where possible, quayside assistance should be called in to take the mooring lines, especially during night-time hours. If this is not possible, a full risk evaluation should be conducted and the crew should be made aware of the dangers. In cases without quayside assistance, it is important to provide such a risk evaluation regarding disembarkation during mooring and unmooring procedures of the vessel. This would also prevent unnecessary movements on and off the vessel.

Classification: Very Serious

The full report can be found at <http://www.onderzoeksraad.nl/en/onderzoek/2037/fatal-entrapment-between-quay-and-vessel-during-mooring-4-december-2013>

Two crewmembers overboard in the Baltic Sea, Marietje Andrea (IMO: 9361134), Baltic Sea, 5 December 2013

On Thursday the 5th December 2013, two sailors from the Dutch motor vessel Marietje Andrea were lost after they fell overboard in the Baltic Sea in the territorial waters of Sweden. None of the crewmembers saw it happen. At the moment of the incident, it is likely that the sailors were making their way across the deck hatches to the foredeck. The bridge crew heard the sailors calling for help after their fall into the water. They responded by dropping a lifebelt and a smoke marker from the bridge into the water. The ship turned about. When the Marietje Andrea returned to the Man Overboard (MOB) location, indicated by the smoke marker, they could not find the sailors there. The sailors were not found in the following months after the incident. Based on the investigation by the Dutch Safety Board, the board deems it plausible to assume that the crew members were in a location with a heightened risk of falling as there was no effective provision against a fall overboard at the location of the incident. The risk of passing over the deck hatches or the risk of falling overboard, were not identified as possible risks on board of the ship. As a result, control measures were lacking. After the sailors fell into the water, the crew quickly carried out a large number of tasks which could have contributed to a successful rescue. However, they omitted to immediately apply a hard turn to the ship and carry out a MOB manoeuvre. As a result, it took longer than necessary to return to the MOB position.

Classification: Very Serious

The full report can be found at <http://onderzoeksraad.nl/en/onderzoek/2036/two-crewmembers-overboard-in-the-baltic-5-december-2013>

MV Marietje Andrea.



Chief mate lost overboard in severe weather, Victoriaborg (IMO: 9234276), Atlantic Ocean, 23 December 2013

On the 23rd December 2013, the under the Netherlands flag sailing general cargo vessel Victoriaborg, sailed in the Atlantic Ocean from Rotterdam, the Netherlands to Wilmington, United States of America. The ship encountered severe weather during her voyage to her port of destination (wind force 8/9 Bf,⁴ significant wave height 7.5m). Due to a small amount of water inflow which was found in the pantry, the first mate and the cook searched for a possible leak of the vessel. However, they did not find the leakage, and the cook saw the first mate leaving the accommodation.

Soon after, several alarms were sounded, including the fire alarm. In response, the crew reported to the bridge, however the first mate was missing and a search was initiated through the ship. Meanwhile, the chief engineer investigated the cause of the alarms. On his search, he found the entrance door to the emergency generator room open and unlocked; the engine room contained 40 centimetres of water. It is likely that the first mate washed overboard when he opened the door to the emergency generator room, to look for the source of the leakage in the pantry. The body of the chief mate washed ashore several weeks later.

4 On the scale of Beaufort.

Conclusion:
This accident underlines the importance of carrying out a careful assessment in consultation with the crew before going on deck in bad weather. Subsequently, if in this assessment the decision is made to go on deck, the correct safety measures should be taken.

Classification: Very Serious

The full investigation report of this accident can be found at <http://onderzoeksraad.nl/en/onderzoek/1990/chief-mate-lost-overboard-in-severe-weather-december-23-2013>



MV Victoriaborg.

Crewmember asphyxiated after entering cargo hold, MV Hudsonborg (IMO: 9321407 North Sea (Netherlands), 12 March 2014

On the 12th March 2014 the first mate of the Hudsonborg died after entering a stairwell leading to a cargo hold containing zinc concentrate. The ship was sailing with a bulk cargo when the first mate was going to perform a cargo inspection. The cargo oxygen-depletion hazard had been underestimated while performing this job. No sufficient safety precautions have been taken. The investigation performed by the Dutch Safety Board showed that the cargo inspection procedure is inconsistent with the execution of the task in practice: Firstly, there is a contradiction, because in accordance with legislation and procedures the hold must be ventilated before entry is permitted. However, the same legislation and procedures prohibit ventilation of the hold during the voyage. Secondly, in order to inspect cargo three different safety sheets and a permit-to-work must be read side by side so as to deduce the appropriate procedure to be followed. Thirdly, according to the procedure five individuals are required to take part in the activities that apply to entering an enclosed space, the ship had an eight-man crew. The cargo documents were in this case not coherent and clear. The documentation emphasized the chemical hazards more than it emphasized the hazard of oxygen depletion.

Classification: Very Serious

A full report can be found at: <http://onderzoeksraad.nl/en/onderzoek/2033/asphyxiated-after-entering-cargo-hold-12-march-2014>

Deadly fall overboard during cargo-work, Clipper Champion (IMO: 9169861) Rotterdam (Netherlands), 1 May 2014

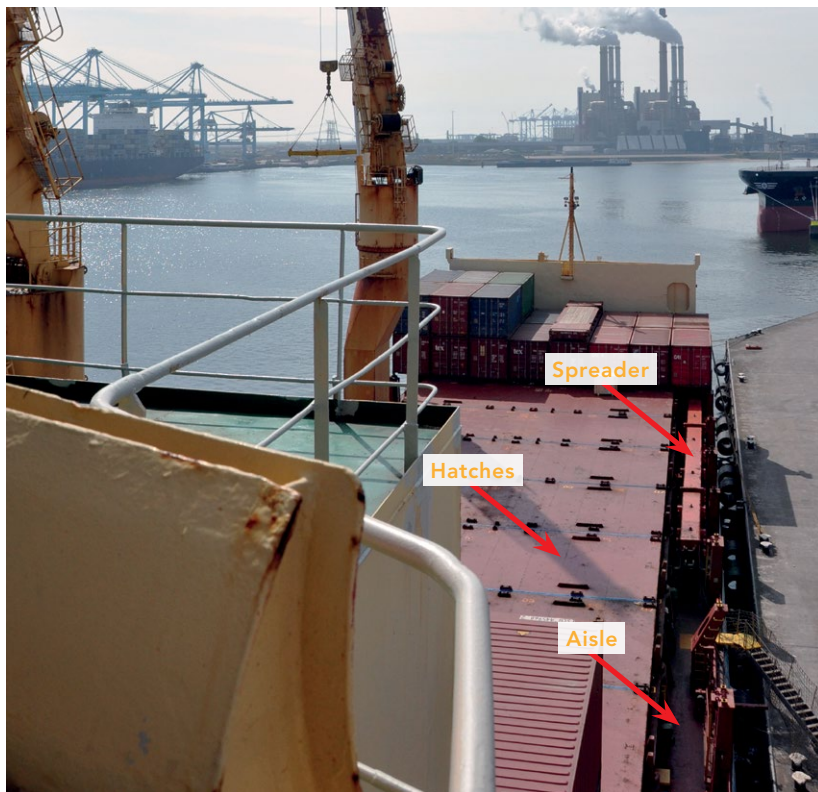
On the 1st May 2014, an accident occurred on board of the South Korean flagged general cargo vessel Clipper Champion, moored in Rotterdam. During loading

preparations, the crew was shifting hatches using the ship's crane when a crew member fell overboard between quay and ship. He suffered fatal injuries.

The Dutch Safety Board conducted a safety investigation and published a report. The victim was guiding the hatch during the accident. In order to be able to guide the hatch, he connected a rope to the hatch and walked with it to the fore ship. He passed the starboard aisle during shifting. On the last part of the aisle, a 42 tons spreader was positioned.

This spreader was used to load or unload heavy cargo with the two ship cranes and was blocking the last part of the starboard aisle. The spreader was not part of the standard ship equipment and was placed on board to enhance the commercial value of the vessel. To guide the

MV Clipper Champion.



MV Hudsonborg.

hatch further, the crewmember saw no other option than to climb on the spreader.

The spreader was above the railing and was not equipped with falling safeguards. The Closed Circuit television (CCTV) footage from a nearby positioned camera showed that the sailor fell off the spreader while the hatch was being moved by the crane. However, the exact reason why the sailor fell off the spreader was not visible. Lessons which can be learned from this accident are:

1. Shipping companies should play a leading role in preventing potential risks when changing equipment. A good way to achieve this is to consult the crew and assess the risks that may be applicable and whether they are acceptable. It is important that all crew members are involved, including the captain and chief engineer, but also the sailor and the cook.
2. The companies should ensure that there is sufficient attention to individual and each other's personal safety. It is important that a culture is developed aboard ships where colleagues dare to point out hazards to each other and find personal safety of paramount importance. Company employees visiting the vessels must show exemplary behaviour by for example, wearing the appropriate protective equipment and speaking to the crew about misuse of personal protective equipment and the possible dangers.

Classification: Very Serious

A full report can be found at: <http://onderzoeksraad.nl/en/onderzoek/2031/fatal-fall-overboard-during-loading-activities-1-may-2014>

Fatal accident during in cargo machinery space, Sierra King (IMO: 8810786), (South-Africa), 11 January 2014

On Saturday the 11th January 2014, the chief engineer on board of the Dutch reefer vessel Sierra King died after inhaling Freon. The chief engineer died in the ship's cargo machinery space during maintenance procedures. At the time of the incident, the ship was sailing in international waters of the coast of Namibia. The Dutch Safety Board started a safety investigation into the accident and published a brief report. Conclusions were

1. The chief engineer did not use the usual preparations procedures, such as using a warm jacket due to the cold space, the sign 'men working inside', as well as not disconnecting the installation, when he started with the maintenance procedures. By failing to take the proper precautions, the cargo machinery space, where the chief engineer was working, was able to fill with Freon gas. The gasses intoxicated the chief engineer unnoticed, until the chief engineer was unable to leave the machinery area in time. The crew did not have the means to intervene on time, as they were not informed about the intentions of the chief engineer to conduct maintenance proceedings.
2. The high alcohol percentage in the blood of the chief engineer indicates he consumed a considerable amount of alcohol in the hours prior to the proceedings. The role the alcohol use might have had in this incident cannot be determined with certainty.

Classification: Very Serious

A brief report can be found at <http://www.onderzoeksraad.nl/en/onderzoek/2035/fatal-accident-during-work-in-cargo-machinery-space-11-january-2014>

Currently investigating

Sinking of self propelled inland barge, Norderney North Sea (Germany), 24 November 2014

On Monday the 24th November 2014 at about 08:00 hours, an self propelled inland barge sank near the island Norderney, situated in the North Sea. The barge was recently bought by a Dutch company, and was on her way from Denmark to the Netherlands.

The barge had a temporarily communautair certificate, which was valid for the inland waters only. During the overpass journey from Denmark to the Netherlands, the ship suffered from water ingress. The investigation concerning this accident is to be conducted via a joint investigation, directed by the German Bundesstelle für Seeunfalluntersuchung (BSU).

Classification: *Very Serious*

Capsize inland dry cargo vessel, Westerschelde (Netherlands), 5 February 2015 and 30 March 2015

On Thursday evening the 5th February 2015, just before midnight, an inland dry cargo vessel capsized on the Westerschelde at the height of the village Hoofdplaat, between Breskens and Terneuzen. This incident occurred at the moment that the vessel was taken sand from a suction dredger.

When the vessel capsized, the vessel had 3 men onboard. A deckhand who was still on deck, jumped overboard. He was rescued by crewmen of the suction dredger, subsequently. The two other crewmembers went down with the ship. One of them was found alive on the Friday morning. The body of the third person washed ashore a couple of weeks later.

On the 30th March 2015, again the suction dredger had loaded a different dry cargo vessel with sand near Hoofdplaat at the Westerschelde. At 19.30 hours, this vessel capsized also due to a leakage on board of the ship. The two crewmembers were able to climb on board the suction dredger in time.

Due to the severity of the incidents, the Dutch Safety Board started an investigation.

Classification: *Very Serious*

Dry cargo vessel.



Investigations started by foreign authorities where the Netherlands is substantially interested

Source: FleetMon.com, Juergen Braker



River passenger ship collided with other moored passenger ships, Danube River (Hungary), 15 August 2014

On the 15th August 2014 an Hungarian registered river passenger ship experienced a blackout while sailing on the river Danube, Hungary. The vessel was on a sightseeing trip, and was situated close to the 1648km river marker, in the vicinity of Budapest. The vessel lost engine and rudder control, and started drifting downstream towards a moored Dutch passenger vessel. At 22:20 hours, the vessel adrift collided with the moored passenger vessel. After collision, the stream caught the drifting ship again and the ship was pulled further downstream towards the next berthed Swiss passenger vessel. At 22:25 hours, the vessel adrift also collided with the Swiss passenger vessel. Due to the collisions, the hull of the vessel adrift sustained damage above water line. The other two passenger vessels did not sustain any significant damage. No persons were injured during the accident.

The Hungarian investigative authority conducted an investigation and discovered faults in the 24Volt system, causing the blackout.

Classification: Serious

Fatal accident, Mississippihaven Rotterdam (Netherlands), 12 November 2014

On Wednesday the 12th November 2014 at 14:00 hours, a fatal accident occurred on board of an Antigua Barbuda flagged general cargo vessel. An AB⁵ fell 10 meters onto the bottom of the cargo hold. The vessel was awaiting her berthing place when the crew was shifting a movable bulkhead to another position in the cargo hold. The crew removed the blocking pins of the bulkhead via a hoisting gage, which was attached to a hatch cover gantry crane. While moving the gage, the hoisting chain broke off and the gage with the crewmember in it fell 10 meters onto the bottom of the hold. Shortly after, the crewmember died.

5 Able Bodied Seaman.

The Flag State of Antigua&Barbuda is investigation this occurrence.

Classification: Very Serious

Crewmember missing, (United States), 21 December 2014

A crewmember went missing on a Dutch flagged cruise vessel when the vessel was entering the Tampa Bay Area (USA/Fla). He was last seen on the CCTV at 03:15 hours, on the 21st December 2014. The sighting was in the midship crew area, heading from B deck up the crew staircase. Based on the ship's arrival at 06:30 hours and the preparations required for that, the belief is that the most likely window for the disappearance was between 03:15 hours and 05:45 hours. The disappearance occurred just before his dismissal at 07:00 hours on 21 December, after arrival in Tampa. A full second stage ship search was conducted, however the crewmember was not found onboard of the vessel. Seattle office, CBP and USCG were informed and involved. External CCTV was reviewed but no items of relevance could be noted. With the use of helicopters and a surface craft, the US Coast Guard (USCG) conducted search and rescue operations in the main ship channel and drift areas in the Tampa Bay area, with negative results. The outboard CCTV of the ship did not register anything unusual and there were no sightings of the missing crewmember. Furthermore, the K9 unit of the Custom Border Police (CBP) attended the vessel to assist with the search for the missing crewmember. Local law enforcement searched close to shore and on shore. The K9 unit, as well as the Local law enforcement could not find the missing crewmember either. On the 26th December 2014 at 7:15 hours, the body of the crewmember washed ashore behind the Ultimar Condos in the 1500 block of Gulf Boulevard. The Pinellas County Medical Examiner's Office concluded that there was no foul play involved in his death. The US Coast Guard concluded the crewmember must have jumped overboard to swim to the coast.

Classification: Very Serious

Investigations started by foreign authorities where the Netherlands is substantially interested

Belgium fish trawler lost during fishing, English Channel, 28 January 2015

On Wednesday the 28th January 2015 around 14:45 hours, an Belgian flagged fishing vessel disappeared from the tracking system AIS. The crew consisted of two Dutch, one Portuguese and one Belgian crewmember. After disappearance from AIS, Dover Coastguard tried to contact the fishing vessel several times, without success. In responds, the Dover Coastguard started a search and rescue (SAR) operation. Two lifeboats and three helicopters were deployed to the last seen position in the English Channel between the British Hastings and the French Boulogne. At least 15 fishing boats operating in the vicinity participated in the search.

On the 29th January, wreckage remains of the fishing vessel, consisting of fishing gear and a life raft, where found by the search parties. This was the first indication that the vessel sank. At 16:30 hours, two bodies were found 17 kilometres from Boulogne. It turned out to be the Dutch and Belgian crewmember of the fishing vessel. The other Dutch and Portuguese crewmembers were still missing.

On the 2nd February, the wreck of the fishing vessel was found by a survey vessel. A few days later, the Royal Dutch Navy conducted diving operations inside of the wreck to search for the missing crewmembers. There, the body of the Portuguese crewmember was found. One of the Dutch crewmembers is still missing. The Belgian authorities are conducting a full safety investigation concerning this accident.

Classification: *Very Serious*

Collision on Westerschelde, (Netherlands), 22 February 2015

On Sunday the 22nd February 2015 at about 05:50 hours, an U.S. flagged container vessel collided with an Panamanian flagged container ship. This incident occurred on the Westerschelde at the height of Hansweert. The U.S. flagged container vessel was on her way from Antwerp, Belgium to Bremerhaven, Germany and the Panamanian container vessel from Felixstowe, United Kingdom, to Antwerp. Both vessels had a Belgian pilot onboard.

The National Transportation Safety Board (NTSB) is conducting an investigation into the casualty.

Classification: *Less Serious*

Entrapment during lifting operations, (Australia), 23 February 2015

On the 23th February 2015 a Dutch flagged semi sub heavylift vessel, lay berthed in Port Hedland, Australia. At the time of the incident, the crew was shifting material from the main hatch to a fixed tween deck with the help of a chain spreader which was connected to a ship crane. The crane was operated by the second mate and two crewmembers were working on the tween deck between a 4-high stacked pile of load spreaders, unhooking the chain spreader from the load. They communicated with each other via radio. Just before 09:00 hours, after receiving the signal by the crewmembers on the tween deck that the load was unhooked, the second mate lifted the chain spreader. On the way up, the hook of the chain spreader got stuck on the top-load spreader. The load spreader was lifted and the chain spreader snapped under the weight. The top-load spreader slid off the stack and entrapped the two crewmembers between the load spreader and the ship's side hull. Both legs of one crewmember got crushed, of which one leg was lost. The other crewmember broke a leg and suffered back injury.

Classification: *Serious*

Occurrences not investigated extensively

Hull damage, Lady Menna (IMO: 9126352), Ridham dock Kent (United Kingdom), 6 November 2014

On Thursday the 13th November 2014, the general cargo vessel Lady Menna arrived in Tallinn, Estonia shipyard in order to carry out temporary repairs to the bottom plating. The vessel had two holes in the double bottom tank between the frames, including a hole of 160 mm in length.

Reportedly, the damage occurred at Ridham Dock on the 6th or 7th November, when the ship was involved in loading procedures during periods of low tides. After completion of the temporary repairs, the vessel left the dry dock and left Tallinn heading for Tahkoluoto on the 15th November.

Classification: Serious

Contact with quay during manoeuvring, Ankergracht (IMO: 9014872), Genoa (Italy), 15 November 2014

On the 15th November 2014, the Dutch flagged general cargo vessel Ankergracht, came in unintended contact with the quay whilst manoeuvring in the port of Genoa, Italy. The vessel experienced severe rain and storm force wind gusts and lost control while being under assistance of two tugs. Due to this loss of control, the vessel came in contact with the quay. The vessel sustained damage to her portside shell plating and stern.

No personal injuries nor pollution occurred. The quay sustained limited damage. After inspection by classification societies, no technical failures were discovered.

Classification: Serious

Fall from work cage, Elbeborg (IMO: 9568249), Thunderbay (Canada), 28 November 2014

Friday the 28th November 2014, an accident, occurred at Thunderbay, Canada, on the under the Dutch flagged general cargo vessel Elbeborg. One of the crewmembers was placing a bulkhead, thereby using the electrical chain hoist of the ship's gantry crane.

While being engaged in this procedure, the drive pinion broke. This was due to an overload of the work cage. The cage fell down from a height of approximately 10 meters onto the tank top while the crewmember was still in it. Investigation of the tackle installation showed a lack of maintenance.

Both legs of the crewmember were injured. After a short period of being hospitalised, the crewmember reported back on board.

Classification: Serious

Collision of three vessels after breakage tug line, Alpine Mary (IMO: 9655987), Rotterdam (Netherlands), 6 December 2014

On Saturday the 6th December 2014, the Liberian flagged tanker Alpine Mary was sailing under pilot guidance on the river Nieuwe Maas. Two harbour tugs were connected, river tanker Atlantic Partner was moored at the waiting berth nearby. The river pusher Arend, was connected to the crane barge Ron 1, and sailed between the Alpine Mary and the berthed Atlantic partner.

At that moment the forward tug line broke which connected the Arend to the Alpine Mary. The Alpine Mary lowered her anchor in an attempt to prevent a collision. Subsequently, the stern line which was connected to the aft tug, broke as well. The stern of the Alpine Mary swung to starboard side and collided with the pusher combination Arend and crane barge Ron 1.

The pusher combination also lost control and collided with the moored Atlantic Partner. All vessels and the berth of Atlantic Partner sustained. The Atlantic Partner spilled a small amount of diesel oil in the harbour.

Classification: Serious

Fall from height resulting in broken leg, Industrial Brio (IMO: 9525429), Beverwijk Port (Netherlands), 9 December 2014

During the closing operations of the tween deck on board of the Panamanian flagged general cargo vessel Industrial Brio, an AB fell down 6 meters into the cargo hold and broke his leg. An ambulance was requested and arrived shortly after. A medical helicopter also arrived, but was not used. The injured AB was lifted from the cargo hold onto the shore using a shore crane and was to the hospital with an ambulance.

Classification: Serious

Occurrences not investigated extensively

Grounding, MSC Rachele (IMO: 9290282), Westerschelde (Netherlands), 12 December 2014

On Friday the 12th December 2014 at 14:25 hours, the Panamanian flagged container vessel MSC Rachele grounded on the Middelpaalt close to Terneuzen in the Westerschelde while on its way to Antwerp. After two hours, two tugs arrived to get her afloat again.

The MSC Rachele was adrift due to a black out caused by fuel problems. After getting her afloat, an emergency generator was placed on board. She was allowed to continue her voyage after berthing and inspection in Antwerp.

Classification: Serious

Collision during manoeuvring, Ms Cora Jo (IMO: 9268875), Water Lady (EMI: 02314758), (Netherlands), 17 December 2014

On the 17th December 2014 at 20:20 hours, the under the flag of Curacao sailing general cargo vessel Cora Jo collided with a crane pontoon towed by the tug Water Lady. The Cora Jo was under pilotage, shifting from the Westhaven Waterland Garage 2, to a berth at the Vlot-

haven (Amsterdam port area). At the moment of collision, the Cora Jo was heading astern from her berth into the North Sea Canal. The Water Lady sailed from the North Sea Canal into Westhaven, while towing a floating crane. The tug passed the Cora Jo astern however, the Cora Jo hit the crane pontoon with the stern of the ship. The Cora Jo took damage to the port side of the aft peak, consisting of two holes. After repairs, Cora Jo left the port of Amsterdam.

Classification: Serious

Crewmember injured, Willem van der Zwan (IMO: 9187306) Amsterdam (Netherlands), 23 December 2014

On Tuesday the 23rd December 2014 at 19:30 hours, a crewmember on board of the Dutch flagged fishing vessel Willem van der Zwan, was seriously injured when stepping out of the ship's crane.

The crewmember intended to take a break and stepped out of the crane cabin, but lost his balance and fell through the ladder opening in the railing onto the lower deck. The crewmember sustained a mild concussion, bruises on his chest and shoulder and two broken fingers.

The crewmember was transported to the hospital for treatment. The vessel was moored in Amsterdam at the time of the accident.

Classification: Serious

Injury while hoisting an electromotor, Maersk Kalmar (IMO: 9153862), Suez Anchorage, (Egypt), 23 December 2014

On the 23rd December 2014, during the installation of an electromotor on the Dutch flagged container vessel Maersk Kalmar, one of the fingers of the electrician got stuck between the motor and the fan duct. The electromotor was being hoisted down a fan duct, but got stuck during the hoisting maneuvers. The electrician and a cadet tried to push and pull the motor through the fan



Fan duct and electromotor. (Source: Maersk)

duct. When it came loose, the electrician's finger was hit by the motor and consequently broke despite the leather gloves the electrician was wearing at the time.

First aid was applied on board of the vessel and the electrician was transported to a hospital upon arrival at Suez Anchorage.

Classification: Serious

Hit by jib of gangway crane, Volendam (IMO: 9156515), Port of Thilawa (Myanmar), 29 December 2014

On the Dutch flagged cruise vessel Volendam, an accident occurred during crane operations, the crane was going to be used to recover the gangway from the dock. A crewmember was on the bow, swinging out the starboard derrick/crane. As he did so, the rigid back stay (pull rod), which holds up the jib and is connected to the axial bearing on the top of the main stanchion column, sheared, allowing the jib to fall and hit the crewmember in the chest. The member fell on the deck and ran to the ship's infirmary. A briefing was held on that morning to discuss rigging the derrick and the plan to lift the gangway at 16:00 hours. The derrick had been rigged and was ready. The crewmember decided to swing out the boom in preparation of lifting the gangway, in anticipation of his colleagues and supervisor. There was no load on the derrick/crane. It was the act of swinging the jib over the side which caused a shear to the pull rod, which was possible through a previously unknown metal fatigue

fracture. On 10 October 2014, both the port and starboard cranes were certified by A&M Defense UK as 'safe to use'. The crewmember which was hit by the crane suffered broken ribs with thorax hematoma.

Classification: Serious

Collision with berth, Stena Scotia (IMO: 9121625), Killingholme (United Kingdom), 7 January 2015

On Wednesday evening the 7th January 2015, the Dutch flagged roll-on-roll-off cargo vessel Stena Scotia was departing the berth of Killingholme (UK). Whilst manoeuvring, she made contact with the berth which caused two punctures in the ship's hull. Both punctures were located in the bow thruster space, above the water line. The punctures did not lead to water intake. Although the punctures in the hull did not lead to any water ingress, the master decided the vessel unfit to proceed; he was concerned that the sea state would still cause the water to enter the vessel. The vessel returned to her berth at Killingholme for repairs. These repairs were completed to the satisfaction of the attending class surveyor.

Classification: Serious

Injured crewmember during mooring operations, CT Dublin (IMO: 9395989), SD Jacoba (IMO: 9174567), (Netherlands), 11 January 2015

On the 11th January 2015, the Maltese flagged chemical tanker CT Dublin shifted from a berth in Vlaardingen to the Waalhaven in Rotterdam, in order to wash her tanks. CT Dublin was assisted by the tug SD Jacoba. When the mooring line was returned to the tug, the leg of one of the crewmembers got trapped. The lower leg was amputated during this accident.

Classification: Serious

Crewmember seriously injured during boiler maintenance procedures, Varkan Marmara (IMO: 9458145) Amsterdam (Netherlands), 13 January 2015

On Tuesday the 13th January 2015, a crewmember on board the Turkish flagged chemical tanker Varkan Marmara got seriously injured during maintenance procedures of the exhaust boiler. The injury occurred when the crewmember disconnected a thermal oil line. Due to the pressure, hot oil sprayed in the face of the crewmember when the line was disconnected. The hot oil caused serious face burns and the crewmember had to be transported to the hospital. At the time of the accident, the vessel was moored in Amsterdam.

Classification: Serious

Collision between two vessels, CFL Prospect (IMO: 9376440), MCT Monte Rosa (IMO: 9298363), Baltic Sea, 25 January 2015

On the 25th January 2015 around 01:01 hours, a collision took place between the Dutch flagged general cargo

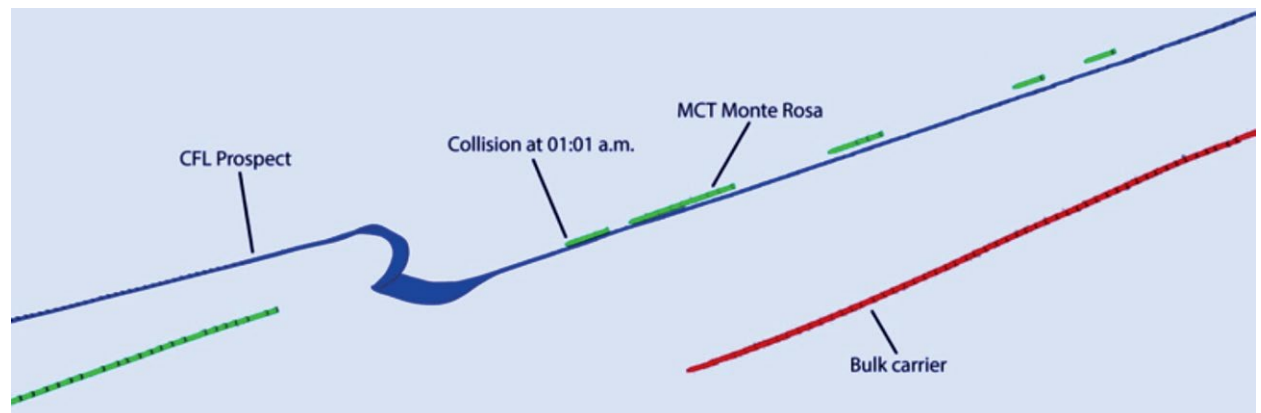
vessel CFL Prospect and the MCT Monte Rosa, a Swiss flagged chemical tanker. The collision took place in the Baltic Sea, north of Rügen (Germany). VDR data from the CFL Prospect including audio, satellite AIS data and the collision report were used to reconstruct the collision. The CFL Prospect was sailing a west-southwest direction with approximately 10 knots.

The MCT Monte Rosa and a bulk carrier were overtaking the CFL Prospect. While the other vessel was overtaking the CFL Prospect on port side, the MCT Monte Rosa collided with the vessel on the starboard aft side. The collision did not result in any casualties but minor damage was taken. Both vessels were able to continue their voyage.

The VDR audio suggests that the CFL Prospect mistook the MCT Monte Rosa for the bulk carrier; few moments before the collision the CFL Prospect tried to make contact with the bulk carrier. The confusion lasted until about 50 minutes after the incident, during which the CFL Prospect tried to make contact with the bulk carrier and reported this to the Danish coast radio station. It appears that the MCT Monte Rosa did not try to make contact with the CFL Prospect. After the confusion cleared, the CFL Prospect and MCT Monte Rosa exchanged contact information.

Classification: Serious

Figure: Data points from collision between CFL Prospect and MCT Monte Rosa.



Occurrences not investigated extensively

Medical evacuation from fishing vessel, WR42 'Johanna Dieuwertje' (IMO: 8431798), (Netherlands), 15 February 2015

On the 15th February 2015, a medical evacuation took place on board the fishing vessel WR42 Johanna Dieuwertje by the Netherlands Coastguard.

The patient, suffering from a broken ankle, was transported by helicopter to the airport De Kooy and subsequently moved to the hospital by ambulance.

Classification: Serious

Collision Grande Africa (IMO: 9130949) and Leonardo (IMMS: 9395147), Westerschelde (Netherlands), 20 February 2015

On Friday the 20th February 2015 around 14:45 hours, a collision took place between the Gibraltarian flagged roll-on-roll-off container ship Grande Africa and the Swiss flagged internal water chemical vessel Leonardo on the Westerschelde near Graauw, the Overloop van Valkenisse. The Leonardo did not contain cargo at that moment and was on her way to Doel (BE). The Grande

Africa was underway to Vlissingen (NL). The Leonardo was hit at her port side by Grande Africa's bow and sustained considerable damage, but was able to continue her voyage as the damage was above the waterline. The Grande Africa took minor damage and was able to continue her journey.

Classification: Serious

Collision Vlakebrug, MS Alsvin (ENI: 06004017), (Netherlands), 20 February 2015

On 20 February 2015 at 06:15 hours the MS Alsvin (flag: Belgium, inland containership) got stuck under the Vlakebrug, a railway bridge crossing the Kanaal door Zuid Beveland (a waterway connecting Westerschelde and Oosterschelde from Hansweert to Wemeldinge). The Alsvin sailed under the left arch of the bridge, which cannot be opened, instead of under the middle arch, which can be opened. The skipper of the Alsvin was suspected to have been unwell. The collision slightly damaged the Vlakebrug. Train movements across the bridge were not possible for several hours. The skipper was hospitalised.

Classification: Serious

Crewmember flushed through passage way by wave during deck wash operations, Momentum Scan (IMO: 9534432), (Argentina), 26 February 2015

On Thursday the 26th February 2015 at 14:15 hours, of the Dutch flagged vessel Momentum Scan was approaching Punta Quilla. She was 10 miles out of the outer anchorage and on a south-westerly course with a speed of 12 knots. The wind was coming from south-southwest direction, with an average wind speed of 27 knots. The average wave height was 2 meters. The vessel was loaded and had a freeboard of around 3.5 meters above sea level. Two crewmembers were performing deck washing

operations in the portside gangway, when a giant wave -three times the size of the average wave height-struck the port gangway. One of the crewmembers flushed against the second crane pedestal and remained unconscious until he was being transported to the accommodation.

After applying first aid and consulting radio medical advice (RMA), the decision was made to transport the injured crewmember to shore as soon as possible for further medical treatment. However, due to weather circumstances, it was impossible to proceed to port or evacuate the injured crewmember by boat or helicopter.

The vessel dropped anchor at Punta Quilla roads during the night. With the improvement of the weather the next day, the injured crewmember could be transported to shore by pilot tender for medical treatment.

During the incident, the crewmember sustained a concussion, several head injuries and bruises on his back, chest and hip.

Classification: Serious

Gas tanker Collided with bridge, Happy Eagle (IMO: 9040170), (Netherlands), 26 February 2015

On Thursday the 26th February 2015 at 02:25 hours, the under the Isle of Man sailing empty gas tanker Happy Eagle was underway to her designated berth on the river Oude Maas, Rotterdam, when she collided with the Botlek bridge during passage. During the accident the Happy Eagle was under pilot guidance. The bridge sustained damage and road traffic crossing the bridge hampered during most of the day. This caused a major traffic jam on one of the main highways. The vessel took major damage on the bulb and aft ship and sustained minor damage on the forecastle port and starboard side. After the collision the ship was towed to a nearby shipyard in order to repair damages. Further inspection indicated that all equipment was functioning normally.

Classification: Serious

Collision during river overtake, mv Wave (IMO: 9313785), mv Arklow Mill (IMO: 9440265), Rotterdam (Netherlands), 1 March 2015

On the 1st March 2015, the Dutch flagged mv Wave was inbound Rotterdam, Nieuwe Waterweg and was headed towards the designated berth silo of Wilhelminahaven of Schiedam. When the Irish flagged general cargo vessel Arklow Mill overtook the Wave, the two vessels collided. Both vessels were under pilot guidance. The Wave was passing the Oude Maas on the Nieuwe Waterweg, when the Vessel Traffic Services (VTS) informed the ship that Arklow Mill, was asking permission to overtake the Wave on port side. This was confirmed by the Wave. When the Arklow Mill approached the Wave, the Wave reduced the speed to half ahead and switched to manual steering. The pilot on board informed the Arklow Mill and VTS about this procedure. During the overtake, the Arklow Mill started turning to starboard side while passing half the length of the Wave, thereby decreasing the distance between the two vessels rapidly. The closing distance between the two vessels combined with the deep draft and speed of the overtaking vessel, caused a vacuum and suction on the bow of Wave towards the overtaking vessel. Because the Wave was sailing close to the starboard channel barrier, she was unable to steer away from the Arklow Mill directly. Therefore, the Wave reduced her speed to slow ahead, and used the bow thruster to try to keep her bow free from the Arklow. This did not stop the enclosing movement, and at 20:30 hours the bow of the Wave hit the aft of the Arklow Mill, resulting in bow damage at the Wave and damage on the stern of the Arklow Mill.

Classification: *Serious*

Two vessels collided during manoeuvring in port, Baltic Mariner I (IMO: 9314820), Leah (IMO: 9113202), 4 March 2015

On the 4th March 2015 the Malta flagged chemical tanker Baltic Mariner 1 lay moored at Jetty 10, Odfjell Rotterdam. The Dutch flagged general cargo vessel Leah was manoeuvring into the harbour astern, and was

approaching her berth. During manoeuvring, the Leah experienced engine problems and was not able to manoeuvre. Because of the malfunction, the stern of the Leah collided with the moored Baltic Mariner 1. The incident resulted in damage but no leakages occurred.

Classification: *Serious*

Ordinary sailor seriously injured during monorail crane accident, Nedlloyd Barentsz (IMO: 9189366), Ambarli Port (Turkey), 24 March 2015

On the 24th March 2015, the Dutch flagged container vessel Nedlloyd Barentsz berthed at Ambarli port in Turkey at 11:35 hours. The vessel was moored on her starboard side after which loading operations commenced at 13:30 hours. While the container operations were in progress, a garbage barge berthed alongside the port side of the vessel to collect the ships garbage.

The Nedlloyd Barentsz was using the monorail crane to drop the garbage baskets into the garbage barge. When the vessel lowered a garbage basket, the crane suddenly malfunctioned. In response the deck crew warned the second engineer and electrician. The electrician checked the condition of the monorail crane, and found a short circuit in the power cable of the monorail. Subsequently, the electrician tried to lift the brake of the travel gear; a manoeuvre which was seen by the crew as dangerous. After consultation, the crew decided to connect another energy source to the monorail's power supply.

The second engineer provided this temporary cable. When the power was switched on, the monorail crane unexpectedly moved to the opposite direction: to the starboard side of the vessel. The monorail crane did not stop, even though the operating handle had been released. As a result, the mono-crane crashed against the end stop plate, broke it and fell down on to the first deckhouse deck, located at the aft (starboard) side of the accommodation. At the moment the crane fell down, the monorail crane seriously injured one of the crewmembers. First aid was applied by the Chief Officer of the vessel and an ambulance arrived 10 minutes after the incident. The crewmember was transported to the

hospital. Further medical examination showed internal bleedings; he had to be hospitalised for a week before he was able to return home.

Classification: *Serious*

Crewmember hit by falling log, Frisian Lady (IMO: 9246906), Solbesborg Port (Sweden), 27 March 2015

On the 27th March 2015, the Frisian Lady was discharging cargo at the port of Solvesborg, Sweden. At 14.15 hours, one crewmember was sweeping hold 1 after it was discharged. A shore side crane was discharging wood stumps from hold number 2, over hold number 1 onto the shore side. During the swing of the crane over hold number 1, some logs fell from the grab and hit the crewmember working there. The sailor suffered a back injury and was unable to work on the ship for a couple of weeks.

Classification: *Serious*

Ship grounded while making leeway, Sea Land Meteor (IMO: 9106209), Flushing roads (Netherlands), 31 March 2015

On the 31st March 2015, the Sea Land Meteor was heading for Antwerp and had to change pilots on Flushing roads. During that moment, there was a 10Bft. westerly wind. The ship had to make leeway for a pilot boat to come alongside, and grounded at 05:30 hours. The low water was at 06:56 hours. Due to the upcoming tide, the ship came afloat at 10:15 hours and moved to an anchor position for inspection.

Classification: *Serious*

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 on a monster truck accident in Haaksbergen and risks associated with gas pipes during excavation work.

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
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DUTCH
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