Mariners' Alerting and Reporting Scheme

MARS Report No. 313 November 2018

MARS 201869

Lifeboat falls with one fatality

Edited from official BEAmer (France) report, May 2017

➔ On a passenger vessel, two members of crew were preparing a lifeboat for lowering as a drill. The lifeboat's doors were opened and the two locking pins were inserted in the dedicated slots. The lifeboat was lifted slightly from the stowed position so that the forward and aft lashing gripes could be retracted. The aft lashing lever was released by one crew member and the lashing gripe retracted normally. The other crew member was busy disconnecting the battery charging supply cables and checking that the engine was ready to start. Somehow, both crew forgot about the forward lashing lever. It remained in position and thus the bow of the boat remained secured.

Soon afterwards, other crew members arrived to assist in the lowering: five to man the boat and one to lower the boat. The crew member who was to lower the boat did not visually check the fore part of the boat. He released the winch brake, and the stern of the boat immediately started to descend, but the bow was locked in the guide by the forward lashing gripe. The lifeboat was destabilised and tilted heavily backwards. Under the combined effects of the excessive inclination and the weight, the bow of the boat freed itself from the guide and the forward long-link slipped out from its release hook. The lifeboat tilted heavily forward, creating a new imbalance. The aft long-link in turn slipped from its hook, tearing its stop pawl. The lifeboat then fell into the sea with a forward tilt angle.

Due to the force of the impact, the forward hook-man was fatally injured. Two other crew were seriously injured and two more sustained minor injuries.

Similar lifeboat: 370 person capacity

Lessons learned

- Lifeboat accidents continue to happen despite the introduction of gear incorporating extra defence mechanisms to help prevent falls. Human error is still a major contributing factor to lifeboat accidents.
- When performing lifeboat lowering manoeuvres it is vital to follow procedures strictly.
- If the lifeboat lowering crew cross-check procedural steps, they are more likely to catch mistakes before negative consequences occur.

MARS 201870

Mooring line snapback causes one fatality

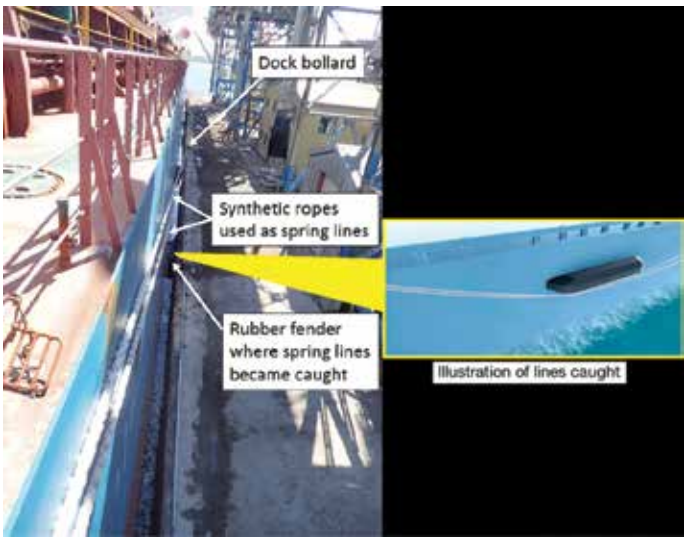
Edited from official TSB (Canada) report M17C0060

➔ A vessel was in the final approach to mooring, parallel to the berth, and two tugs were ordered to push against the vessel's hull. The forward mooring party had deployed two spring lines, which were both placed on the same bollard by the linesmen. The lines were passed through different fairleads on the port bow and winched by the vessel's port mooring unit on the inner and outer drums.

Initially, the two lines were kept loose between the dock and the vessel, as the ship had not yet reached its final position. Once in position, the Master ordered the officer in charge (OIC) to tighten the spring lines to keep the vessel in place. Both spring lines were pulled taut with the port mooring unit, stopping the vessel's motion. The two tugs were continuing to push on the vessel so that it maintained contact with the rubber fenders dockside.

The spring lines were under increasing tension, and the linesmen heard the typical sound of synthetic ropes being stretched. The linesmen noticed that the mooring lines were caught on a fender, and were not leading in a straight line from the vessel's fairleads to the dock bollard as they would normally. They informed the ship's bridge team by VHF radio.

The information was relayed to the OIC. He leaned over the vessel's side to assess the status of the mooring lines and then ordered the mooring party to heave on the winch to put more tension on the lines. The pilot ordered the forward tug to stop pushing. A few seconds later the vessel's bow started to shift sideways and away from the dock's fenders. One of the linesmen on the dock shouted to back away from the handrail. The OIC moved back for a few seconds, but then came forward and leaned over the handrail again to look down at the point where the spring lines were catching.



Suddenly, the two spring lines came free of the fender and sprang upwards like a slingshot. One line went well above the handrail, hitting the OIC on the chin. He fell unconscious to the deck.

Although the victim was quickly brought to the hospital after the accident he succumbed to his injuries and was pronounced dead.

Lessons learned

- This incident is testament, once again, to the dangers of mooring work. Be aware of your environment and the potential hazards.
- The energy within mooring ropes can easily injure or kill. Always use extreme caution when working within the mooring area, even if snapback areas are undefined.
- If there is no clear, unimpeded path from fairlead to bollard, do not increase tension. Slack or hold until the obstruction has been cleared.

MARS 201871

A mouthful of chemical will not slake your thirst

➔ A junior officer was assigned to clean a lifeboat during dry docking. He took a small amount of tank cleaning chemical in an empty plastic mineral water bottle for the task. Because there were no drinking water arrangements available at the jetty, he also carried with him some drinking water in a similar bottle. The two bottles were unmarked except for the water brand label; both liquids were clear.

While cleaning the lifeboat the officer picked up one of the bottles, assuming it contained the fresh water and took a drink. However, it was the tank cleaning chemical and not the water. As soon as he realised this, he spat it out immediately. He soon started getting an irritation in his mouth and throat, which persisted for some time. He was given immediate first aid and was later taken to hospital for further checks and medical attention.

Lessons learned

Chemicals are often ordered in bulk quantities that are inconvenient or unsuitable for everyday use. Subsequently, the chemicals may be transferred to smaller containers that are easier to manage. If it is necessary to transfer chemicals from their original containers:

- Always transfer the chemicals in the chemical storage area
- Use a container in good condition and of the appropriate type for the chemical
- Ensure that the containers are clearly labelled. The labels should be clean and legible and should include: full product name, manufacturer name and material safety data sheet (MSDS) reference.

Never use drinking water bottles for the storing/transferring of chemicals.

Tank cleaning chemicals should not be used for cleaning lifeboats.

■ **Editor's note:** This type of mishap may be more common than one would think; see MARS 201816 for example.

MARS 201872

Blown sideways and then collision

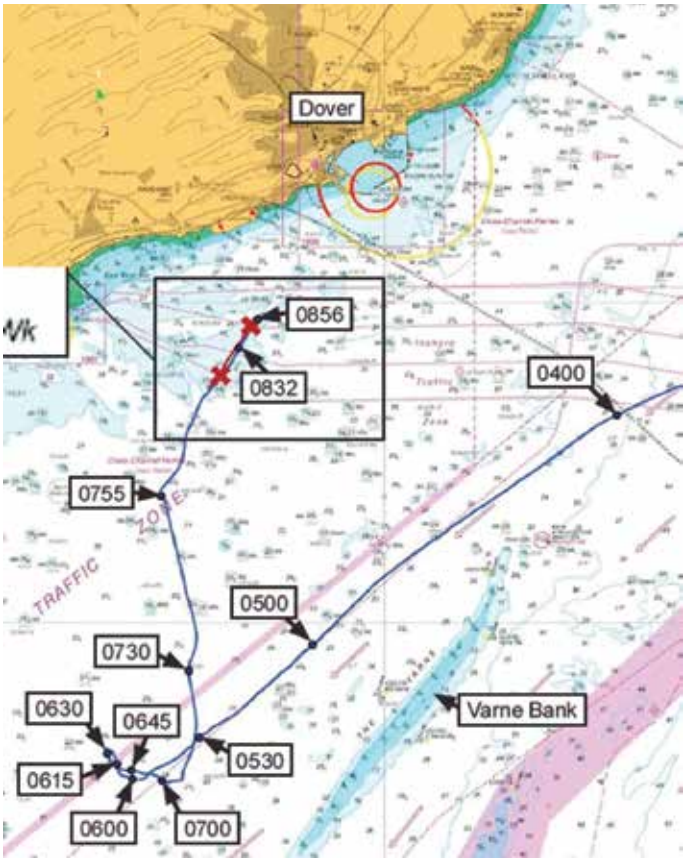
As edited from official MAIB (UK) report 3/2018

➔ A general cargo ship was sailing in ballast and had passed through Dover Strait in the south-west traffic lane. The weather had deteriorated significantly with the approach of a strong storm, and the south-westerly wind and tidal stream substantially reduced the ship's progress. The Master attempted to counter the effects of the weather by increasing main engine speed, but this resulted in the ship pitching heavily. The pitching, coupled with the ballast condition, allowed the propeller to come clear of the water, causing the main engine to overspeed and shut down. This happened on several occasions, but the engineers were able to restart the engine promptly each time. The Master then realised it would be better to turn around and have the seas behind, so he attempted to turn the ship to starboard and steer a reciprocal course until the storm abated.

During the attempted turn, the vessel came beam-on to the sea and began rolling heavily. The effect of the wind on the ship's structure overcame the turning moment of the rudder and made it impossible to complete the turn. Despite maintaining propulsion, the vessel was blown broadside over more than 7nm while the Master continued to try to turn the vessel to starboard. The Master had considered deploying an anchor but thought that conditions were such that it was unsafe to allow an anchor party to operate on the forward deck.

Finally, as the vessel drifted closer to shore and towards a rock barge that was anchored nearby, the vessel's crew deployed both anchors. By now the vessel had gathered considerable sideways speed and was drifting near 9kt, so the anchors did not hold. To add to the confusion the rock barge was also dragging anchor. Both vessels dragged their anchors over two subsea cables, which were severed as a result.

The general cargo vessel collided with the rock barge. At this point, the vessels remained locked together but stopped dragging anchor.



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Lessons learned

- Good seamanship is, in part, anticipating weather and acting before conditions deteriorate.
- If severe weather impedes progress, good seamanship usually means having to heave-to and ride out the storm. It can also include deploying one or more anchors to supplement the ship's propulsion in overcoming the effect of the weather.
- From this report it is unclear what specific manoeuvres with helm and engine the Master was using to attempt to turn the vessel. Using robust astern thrust will often help bring the stern into the wind.

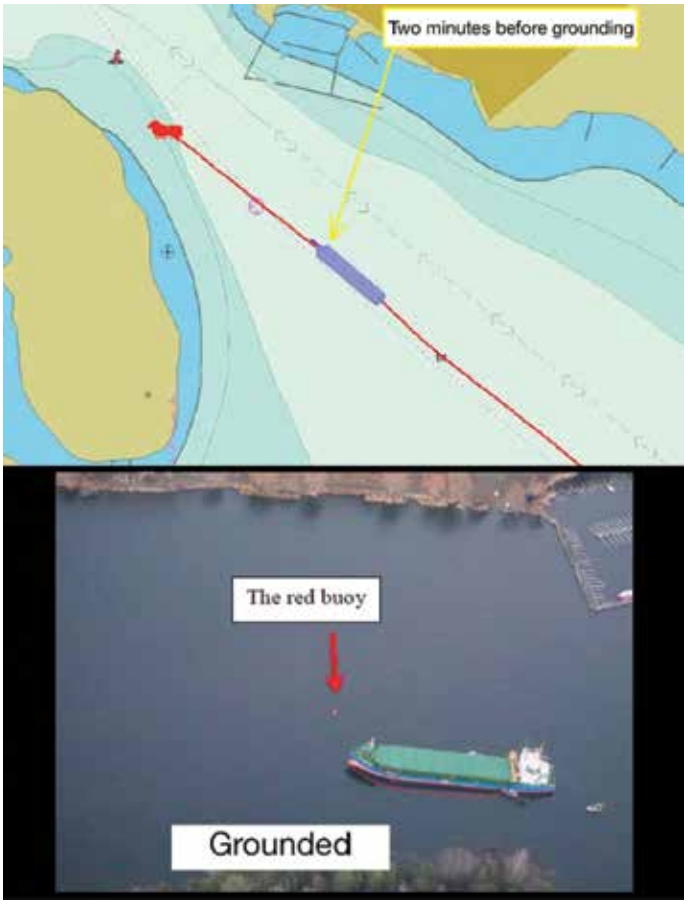
Collision damage with rock barge

MARS 201873

No charts, no plan, no BRM, little rest = grounded

Edited from official SHK (Sweden) report RS2017:05e

➔ A small bulk carrier was loaded and underway under pilotage in coastal confined waterways in the early morning hours. The pilot had his portable pilot unit (PPU), which was loaded with the applicable charts for the voyage. The vessel, however, did not have the paper charts on board for that area, nor was the vessel equipped with an ECDIS.



The bridge was manned by an OOW and the pilot. At 04.31 the pilot informed the OOW that about half an hour remained before they would reach their destination; the Master came back up on to the bridge at about this time. The pilot set the course to 309° on the autopilot, steering in the direction of the red buoy ahead, which was the location of the next course alteration to port. The pilot began reducing speed and simultaneously switched over to manual steering. After a few minutes the pilot discovered that the vessel was on the wrong side of the buoy. He was not able to turn, but stopped the engine before the vessel ran aground at about 04.50.

Among other findings, the official investigation learned that:

- The vessel lacked charts for the intended voyage, meaning that it was not seaworthy according to applicable regulations and the shipping company's ISM scheme.
- No voyage plan had been completed, which coincided with the lack of charts.
- Bridge co-operation (BRM) before the grounding was limited, with very little communication and no participation by ship's crew.
- At the time of the grounding it is probable that the pilot's level of alertness had been adversely affected by fatigue as a result of cumulative sleep deficit, the time of day, the long pilotage and the lack of opportunities for rest and recovery.

Lessons learned

- Do not undertake a voyage without the proper charts and a detailed voyage plan.
- Actively participate in pilotage: check the position, watch the helm orders, maintain situational awareness.

MARS 201874

Steam burn

➔ The crew of a tanker were undertaking cargo tank cleaning operations while at sea. Two boilers were in use. The deck steam valve in the engine room was unintentionally opened far more than the required 20–40%. This resulted in a surplus of steam and decreased the water level in the boiler. The feed pump started (in auto mode) to replenish the water in the boiler, which in turn created a low level of water in the hot well.

Due to the surplus steam, the return line was filled with a volume of steam that exceeded the condenser capacity. Steam filled the condenser and subsequently escaped into the hot well. Low level alarms were activated on the boiler and then in the hot well. Working in haste, the EOW was focused solely on the boiler low level alarm and did not check the level gauge for the hot well tank before opening it. The steam and water mixture in the hot well splashed on to his feet, causing a severe burn on his lower left leg.

The victim had to be repatriated for final recovery.

Lessons learned

- Mistakes made upstream of a process may have serious unintended consequence later and at point downstream in the process.
- Try and keep your overall situational awareness about you when undertaking a specific task.

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