



Mariners' Alerting and Reporting Scheme

MARS Report No 338 December 2020

This issue of MARS marks the end of our 24th season of making lessons learned easier to understand for professional mariners. For the last seven of them, it has been my pleasure and great honour to be the Editor. We at The Nautical Institute hope you can make the best of these examples, all of which can be accessed on our website at <https://www.nautinst.org/resource-library/mars/mars-reports.html>.

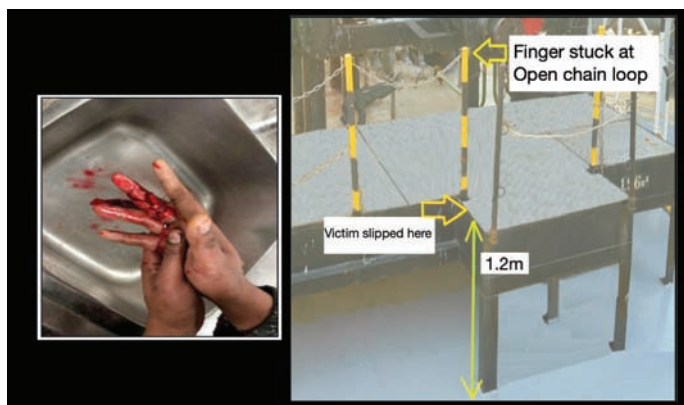
We wish all our members a safe 2021 and we encourage you to support MARS by sending your reports to mars@nautinst.org. Reports can be sent in your own format, or using one of our templates at <https://www.nautinst.org/resource-library/mars/submit-a-report.html>

MARS 202066

Finger caught on open loop

➔ On a tanker, two deck crew were given the job of re-adjusting the cargo hose. One crew was operating the hose handling crane while the other, standing on the covered cargo manifold drip tray, was guiding the suspended hose. A safety chain had been removed in order to allow the cargo hose and supports to pass through.

While adjusting the suspended cargo hose, the belt sling shifted and the crewmember tried to hold the belt in place. He was standing near the edge of the cargo manifold drip tray, and his actions caused him to lose balance. The safety chain was not in place, so to avoid falling he tried to hold on to the closest stanchion and then leaped down to the main deck about 1.2 metres below. In doing so, his right-hand middle finger got stuck in the open half link that served as a support for the safety chain. He suffered a deep cut and was given first aid and sent for shore medical assistance. The victim was repatriated for further treatment as per shore medical advice.



Lessons learned

- Had the victim been wearing safety gloves at the time the injury could have been avoided or much reduced.
- Sometimes, safety equipment itself can be a hazard. In this case, open half-links were used to support the safety chain on the stanchions, but these can be a snag hazard. Closed loops with shackle connections would be a safer, non-snagging option.
- Do a safety audit around your ship today. Are there any hazards 'built-in' to your safety gear?

MARS 202067

Weak procedures and telephone distractions create a fatal combination

As edited from official MAIB (UK) report 10/2020

➔ Semi-trailers were being discharged from the hold of a ro-ro vessel by tractor units belonging to the terminal. A tractor was pushing a semi-trailer up the lower vehicle deck ramp and then down the vessel's stern ramp and onto the quay. One of the vessel's officers, dressed in an orange boiler suit, was standing near the stern ramp. He started a personal call on his mobile telephone. While he was talking, he walked along the starboard side of the main vehicle deck and on to the starboard side of the stern ramp.

As the officer talked on his phone, he remained standing on the stern ramp's starboard side, gradually moving down the ramp towards the quay with his back to the vessel. Meanwhile, the semi-trailer being pushed down the ramp was approaching. Another tractor driver, in his cab on the quay, saw the danger and sounded his horn to give warning. Approximately three seconds later, the rear of the semi-trailer struck the victim, fatally injuring him.

The official investigation found that the tractor driver's view ahead was blocked by the semi-trailer; the victim would not have been visible to him. Furthermore, he was not expecting pedestrians to be standing on the ramp directly ahead of his vehicle. The victim had probably not heard the semi-trailer approaching as the sound of the tractor's reversing alarm and its engine would have been masked by the ambient noise of the vessel. Also, the reversing alarm would have been absorbed or reflected to some degree by the semi-trailer between the tractor and the victim, to say nothing of the victim holding a phone to his ear and being absorbed in a conversation.



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Lessons learned

- Relying on a strategy of ‘see and be seen’, with the onus on pedestrians to keep out of the way, has fundamental weaknesses. Among other things, it does not take into account the limited visibility from a cab pushing a semi-trailer or the potential for distractions.
- The potential for mobile phones to cause distraction in onboard workspaces has yet to be fully recognised and addressed by the marine industry.

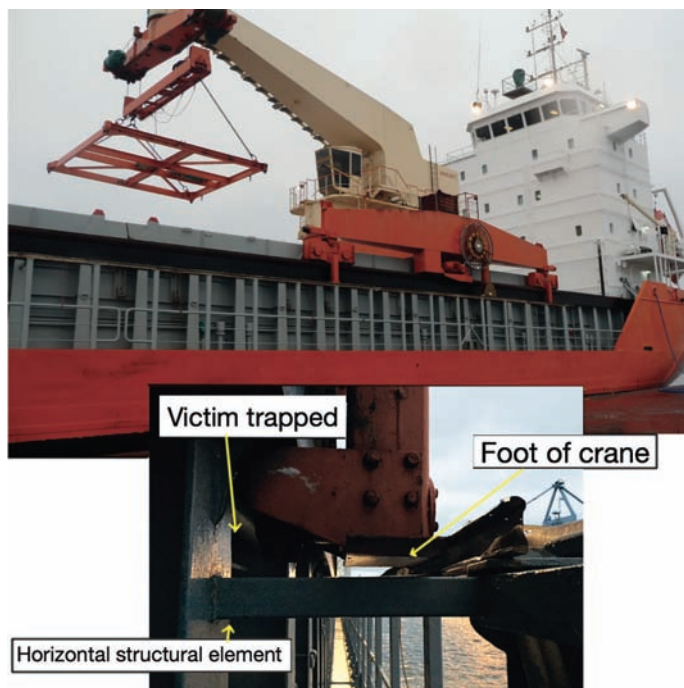
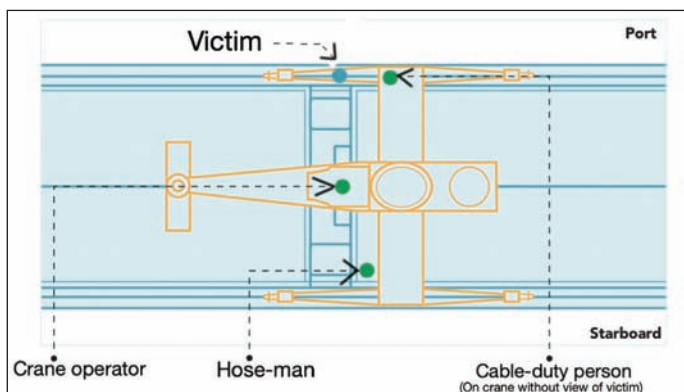
The safety actions taken subsequent to this accident included:

- Updating loading procedure for the lower vehicle decks to ensure that discharge from the lower hold is by forward driving only.
- Updating company guidelines to prohibit pedestrians, including crew members, from being on the stern ramp at the same time as moving vehicles unless actively engaged in the loading/unloading of abnormal loads or vehicles with low ground clearance.

MARS 202068

Crew crushed by moving gantry crane
As edited from the official Dutch Safety Board report published May 2018

➔ The vessel had discharged a cargo of china clay (kaolinite) in bulk, which is a white, greasy substance which is liable to stick everywhere, making conditions slippery. The next cargo was to be paper but before



it could be loaded, the hold and the hatches needed to be completely clean. A short safety briefing was held before the cleaning began in which the risks associated with working with the mobile gantry crane were discussed. Crew then began cleaning the coamings, the deck, and the structure.

The coaming was cleaned with the help of the ship's main gantry crane which had a safety acoustic signal when it was moving. By slowly moving the crane over the coaming, it was possible for a person on the crane structure to clean the coaming with a hose. Several members of the crew were involved in the cleaning work; a crane operator, the hose-man secured to the crane, a cable duty person on the port side and a hose guide who was receiving instructions via his VHF radio.

The port side was cleaned without incident and work started on the starboard side, proceeding from aft to forward. The crane operator was looking astern and the hose-man on the crane was spraying the coaming on the starboard side. The hose guide had last been seen extending the hose on the starboard side. He was contacted via his VHF, but he did not respond. Shortly afterwards, the hose guide was found lying on the deck on the port side, having been struck by the crane. Assistance was given but the victim succumbed to his injuries.

The official investigation found that it was probable that the victim had been seeking to close the cap on the hatch coaming drainage pipe, and had been struck by the moving crane in the process. The investigation was unable to establish why the victim had climbed up at exactly the moment the crane passed by.

Lessons learned

- An audible gantry crane alarm, such as the one in this accident, is not a guarantee that all will go according to plan.
- Gantry crane operators are essentially driving blind as they often cannot see if the track is clear of personnel.
- This is not the first gantry crane accident and unfortunately probably not the last. Some additional safeguards appear necessary during gantry crane operations for the situation to become safer. Some past MARS reports can be found at 201525, 201460 and 98058.

MARS 202069

Security team member falls overboard

➔ A vessel was making for an area subject to piracy, and a security team had come on board and were installing razor wire at vulnerable areas on the ship. While underway, the bridge was informed via VHF radio that a member of the security team had fallen overboard. The Master initiated recovery procedures and within 30 minutes the MOB was safely recovered. The victim was in good condition having suffered only minor injuries.

The company investigation found that in an attempt to place the razor wire outside the rails, the MOB victim had extended his body over the rails, lost his balance and fallen into the sea. The security team members were working alone without supervision from any of the vessel's crew.

Lessons learned

- Good cooperation, effective communication and coordination of work activities with onboard subcontractors are important issues to ensure successful and safe operations.
- Experienced crew should always supervise external teams working on board to ensure compliance and prevent potential unsafe acts.
- Company safety procedures must be effectively communicated and strictly implemented at all times.

MARS 202070

Hand injury while dismantling pipe

➔ A tanker went to a calm anchorage after discharging cargo. Some engine room crew were preparing to do a job that involved removing a heavy pipe which was accessed from the lower platform of the engine room. Once the pipe flanges from both ends of the section were unbolted, the pipe was lowered under control by the use of chain blocks. During lowering, the piece became entangled with other adjacent pipes.

The attending crew attempted to shift the pipe to pass between the other pipes. One crew was standing in an awkward and improvised position, holding the pipe to maintain his balance. When the pipe swung clear, the flange crushed his left thumb. The victim was taken to the ship's hospital for first aid but quickly transferred to a shore hospital. After several days he was repatriated.

The company investigation found, among other things, that:

- Additional hazards for heavy lifting procedures in confined spaces were not accounted for as the victim was maintaining his balance in an improvised manner.
- No extra ropes were used to control and support the pipe, leading to the uncontrolled movement of the heavy pipe.



Flange / Pipe hit thumb



Injured thumb

Lessons learned

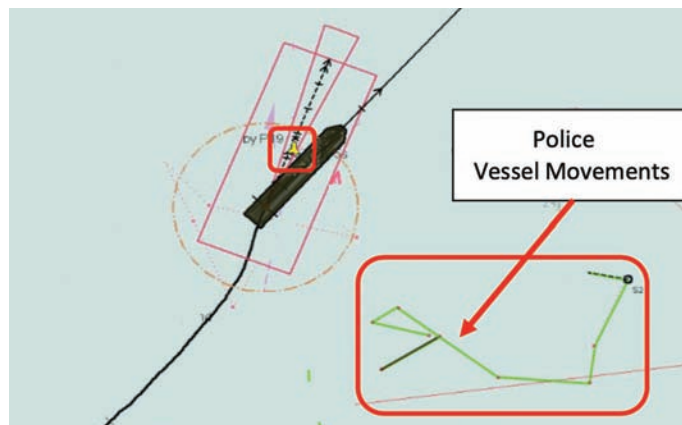
- Manipulating heavy objects in awkward positions requires good planning and execution to avoid bad consequences.
- 'Hands on Handle Only' (that is: only objects that have handles are to be lifted/moved by hand): other loads can be guided using tag lines and/or push pull sticks.
- This was a simple task that nonetheless resulted in a repatriation. No task is too simple to take for granted!

MARS 202071

Contact with buoy

➔ A tanker was approaching a crowded anchorage area where a ship-to-ship transfer (STS) was to take place. Visibility and weather conditions were good and the bridge team was fully mobilised with the Master, two officers, a helmsman and a lookout on duty. As the vessel approached the pick-up position of the Mooring Master, a small police boat was moving somewhat erratically ahead. There were other vessels anchored to starboard, so the tanker's bridge team altered course to port and slowed to about 3 knots.

Speed was further reduced and soon the STS Mooring Master arrived along with two tugs. The tanker, now almost stopped, was affected by the NW current. Shortly after the STS Mooring Master had boarded, the tanker's port side lightly made contact with an anchorage buoy. The buoy slid aft along the hull and its chain became entangled with the vessel's propeller and rudder. The mooring and STS operation was aborted and the tanker anchored with tug assistance. The chain was cleared with the help of divers. Some minor damage to the propeller was recorded.



Lessons learned

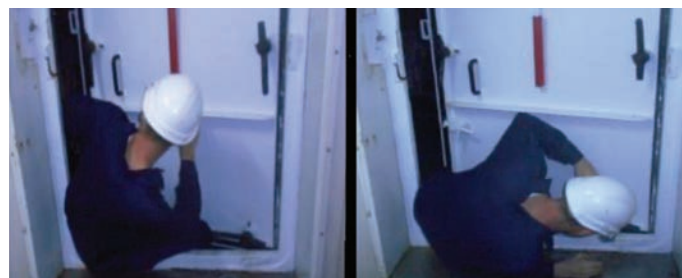
- Even in perfect weather conditions and full daylight, a bridge team can lose situational awareness. It is possible that the boarding of the STS Mooring Master combined with the erratic movements of the police boat and other congestion preoccupied the bridge team and caused the tanker's movement towards the buoy to go unnoticed until it was too late.
- One bridge team member should be tasked with overall situational awareness at all times, but especially when in congested waters and under close manoeuvring.

MARS 202072

Windward door causes injury

➔ A vessel was en route in heavy weather and high winds. A crewmember attempted to exit the accommodation from the port side accommodation door on the upper deck, but had chosen the weather side of the ship. As he opened the door and stepped outside, the strong winds pushed the door back against him.

The door hit the victim in the face and he lost his balance and fell down. Two other crew observed the incident and immediately proceeded to help the victim, who was transferred to the hospital, where first aid was provided. He had sustained a gash of approximately 4cm across his face.



Simulation

Lessons learned

- Weather conditions affect almost every activity on board. Be aware!
- Always try and use the doors that are in the lee, protected from the wind.

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