MARS – Lessons Learned

MARS Report No 386 December 2024

■ Editor's note:

As we end our 2024 MARS season, I would like to send a heartfelt thank you to all our contributing reporters. After 33 years of publishing 'lessons learned', MARS reports and the related free searchable database are contributing to a safer maritime industry.

We would like to send a special call-out to the Singapore TSIB for their excellent published marine accident reports. In this issue of MARS, we have used two such reports to highlight the dangers to crew when handling container lashing rods. In the selected reports, these heavy, cumbersome and unwieldy items have contributed to the deaths of two crew.

You can help support the MARS effort by sending us your reports to mars@nautinst.org. Another way to support MARS is to become a **Nautical Affiliate** partner of The Nautical Institute. This avenue of MARS support includes complimentary advantages for your company or organisation. See our website at https://www.nautinst.org/membership/become-a-nautical-affiliate.html for further information.

MARS 202460

Container lashing MOB fatality while in port

As edited from TSIB (Singapore) report TIB/MAI/CAS.098

https://www.mot.gov.sg/what-we-do/transport-investigations/marine-safety-investigation-bureau/marine-safety-investigation-reports

➔ A feeder container ship docked in the early morning hours before sunrise. Soon after the gangway was in place, the port lashing foreman boarded the ship to carry out safety checks on deck for the cargo working areas.

After his safety inspection, the foreman informed the Chief Officer (CO) that he had safety concerns about the containers at the outboard rows of bay 18, and the terminal's stevedores would not unlash these containers. Although this task was normally done by shore stevedores, it was the port's policy that two persons were necessary to accomplish the task safely, and there was not enough space on the pedestal platform at bay 18 for two stevedores to perform the work.

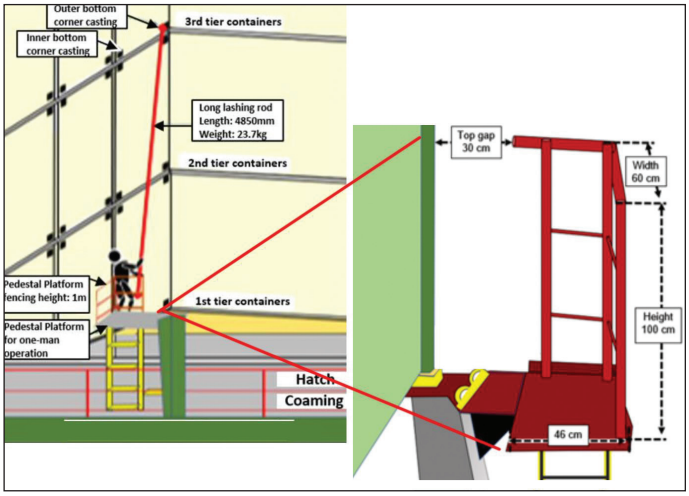
The CO decided to marshal some crew for the task in order not to delay unloading. Two deck crew (Crew 1 & 4) were assigned to unlash the containers at the outboard rows of bay 18, port and starboard. The Bosun was to join the team as soon as he finished securing the forward and aft mooring stations.

At one point during the task, Crew 4 could be seen struggling to remove the swivel head from the outer bottom corner casting of the third tier container, which was well above his head and required him to look upwards. He was manoeuvring the swivel head to unlatch it from the container bottom casting, a task that requires both hands, not to mention skill, effort and strength. The lashing rod weighed almost 24kg and was 4.85m long. It took Crew 4 three to four minutes to unlatch the swivel head.

When the swivel head of the lashing rod came free of the corner caster, Crew 4 immediately attempted to lower the rod, but it swayed sideways towards the berth and quickly gathered downward momentum. Crew 4, still holding the lashing rod, fell overboard between the vessel and the berth, falling through the gap between the pedestal platform fencing and the container.

Emergency procedures were instigated, but the victim was pulled from the sea about 2.5 hours after the accident and was pronounced dead.

The investigation found, among other things, that lashing and unlashing tasks are commonly performed by stevedores in many parts of the world. These stevedores are specifically trained for the physical demands of specific cargo tasks such as container work. Such a physical skill requires time and practice to develop. Ship's crew may have limitations when performing such tasks as these are not their primary roles.



Lessons learned

- This tragic accident underscores the importance of not rushing into a job, especially one that is not a common onboard practice, without properly assessing the risks involved and the appropriate mitigating measures.
- The two crew members unlashing containers at the outboard rows of bay 18 did not don fall protection or flotation devices, even though the task presented hazards such as working at height and risk of falling overboard.
- The port's safety policy required two stevedores to safely undertake unlashing tasks. This should have been a red flag to the vessel's CO to undertake a risk assessment and safety briefing with his crew before work began.

MARS 202461

Container lashing related MOB fatality while at sea

As edited from TSIB (Singapore) report TIB/MAI/CAS.065
https://www.mot.gov.sg/what-we-do/transport-investigations/marine-safety-investigation-bureau/marine-safety-investigation-reports

➔ A container ship was underway at about 15 knots in an estuary, in daylight and good weather conditions, and approaching the pilot boarding station to pick up a pilot. The Master was alone on the bridge while almost all other crew (17 of 21), including a cook and a steward, were marshalled on deck to undertake container lashing removal. The arrival port's stevedores did not habitually do unlashing tasks. While this task was not mandatory for the crew, it did offer extra pay for those who volunteered.

The volunteers were divided into four groups, each with a team leader. The second officer was team leader for Team 2.

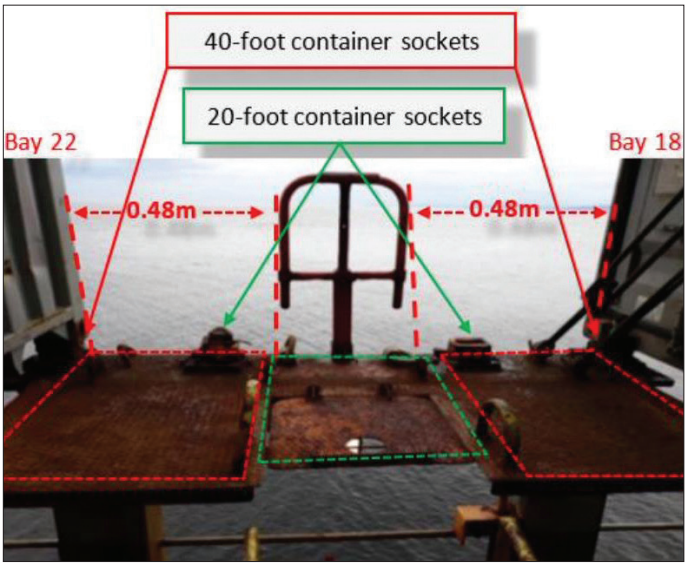
At one point, the second officer was observed by another team member removing a vertical lashing rod from the third-tier container at the outermost row on the port side. The turnbuckle of the lashing rod had been removed and he was attempting to stabilise the rod. The lashing rod was 4.4m long and weighed 22.5kg. He was unable to control the rod and started swaying towards the ship's side before falling through an unsecured gap into the sea 12.5m below, still holding the lashing rod. At that time, the vessel was making about 15 knots and was about two nautical miles from the pilot station.

The alarm was raised, and the man overboard (MOB) manoeuvre initiated. Although the Master released the bridge wing MOB life ring, the life ring did not pull the attached smoke-float off its support, and the smoke-float was left dangling in the air.

The nearby pilot boat that was bringing the pilot to the vessel started to search the area. The vessel's crew attempted to launch their rescue boat, but the motor would not start. A lifeboat was then launched some 45 minutes after the accident. By now, other search and rescue (SAR) units were on scene as well. After over nine hours searching the victim was not found and presumed drowned.

The sea water temperature was about 6°C. In sea water of 5-10°C, unconsciousness is estimated to occur after about 30 minutes to one hour, with a survivability of about 1-3 hours depending on exhaustion levels.

Although the investigators were briefed on the roles of the persons involved, it was not possible to establish why the victim went to the outmost row and attempted to remove the outboard lashing rod. This role was to be performed only by persons wearing a safety harness attached to a strong point. The company's personal protective equipment (PPE) matrix required crew members performing lashing and unlashing tasks at the outboard side to wear a safety harness which was to be tied to a lifeline. At the time of the incident, there were four sets of safety harnesses distributed to each team, and one person in each team had been assigned the safety harness.



The investigation found, among other things, that the victim had been sleeping before being called to perform the unlashing task, having come off watch five hours earlier. Although he had technically received enough rest according to international norms, it could not be ruled out that 'sleep inertia' might somewhat have affected his ability to assess the risk involved in handling the long and heavy rod near the ship side.

According to the company's own risk assessment for this task, safety lines were to be rigged across the 0.48m gaps between bay 18 and 22 as a risk control measure to prevent falling overboard, yet there were no such safety lines rigged at these locations.

It is not routine for ship's crew to perform lashing and unlashing of containers as these are historically and traditionally performed by stevedores. As such, if there is a need for the ship's crew to perform such duties, it is important for any inexperienced crew to have physical hands-on practice under the supervision and guidance of experienced crew to assist them in appreciating the challenges and hazards they are likely to encounter.

Lessons learned

This accident is shockingly similar to that described in MARS 202460. Although in this case the company seemed to have a mature safety culture, 'procedural slip' and/or risk-taking was present. For example:

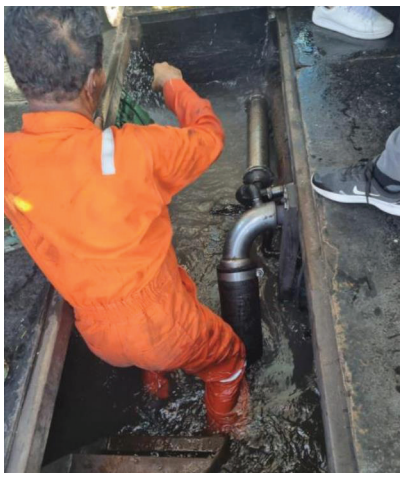
- Safety lines were not rigged at the openings between bay 18 and 22, contrary to the vessel's Safety Management System (SMS);
- The victim disregarded his role as supervisor of Team 2 and proceeded to undertake a dangerous act (rogue behaviour);
- Other team members did not intervene to prevent the victim's unsafe act;
- Some crew unfamiliar with deck operations, such as the cook and steward, were nonetheless enrolled for the task.

Rescue and emergency equipment must be kept at 100% readiness because their reliability and functionality could be the difference between life and death.

MARS 202462

Service boat sinks during crew change

➔ A vessel was at anchor near a port and a service boat had been ordered for the transport of six on-signers to board. In the morning, the six vessel crew boarded the service boat. The three crew of the service



Water flooding the service boat

boat let go the lines and began the transport. The weather was good and the sea waves were at about one metre.

As the service boat was making way, water started flooding into the machinery space. The service boat crew tried to find the cause of the flooding in order to plug the leak, assisted by some vessel crew. Their efforts were unsuccessful, and the water level continued to rise. The service boat crew reported the incident by radio, and it was decided to abandon the service boat into a liferaft. The service boat sank a few minutes later.

Another service boat arrived about two hours after the sinking and the crew were transferred ashore. They had lost all their luggage and travel documents but were otherwise unscathed.

Lessons learned

- Marine emergency duties are a useful skill; you never know when you may need them.
- Be aware of your surroundings and keep your cool.

MARS 202463

Service boat hits rock during crew change

■ **Editor's note:** Incredibly, this second report of a service boat in trouble while undertaking a crew change occurred about six months after the previous MARS report incident (202462), and came from the same company! In this case the crew again kept their cool but had to take refuge on the rock that the service boat had hit.

➔ In the dark early morning hours, a service boat had been ordered to transport five crew members to an anchored tanker. There was rain and a two-metre swell, and the windshield wiper of the service boat was not effective. One of the tanker crew remembers thinking 'How can the service boat skipper see where he is going?' Then, the service boat hit some rocks and an emergency ensued. The tanker crew, wearing lifejackets, abandoned the service boat onto the rocks while the service boat crew stayed on their stricken boat.

One of the tanker crew was able to use his mobile phone to call for help. It took well over an hour for another service boat to come out and recover one crew from the stricken service boat. The other crew of this boat, the skipper, was missing. Another SAR vessel soon arrived and evacuated the tanker crew from the rocks. The skipper's body was found some days later.

Lessons learned

- When being transported in small service boats, ensure there are lifejackets for all on board.
- As with a stop work order, if you are unsure of the safety of a situation, in this case the small service boat, refuse to board and call the Master.
- To keep crews safe while transiting to their vessels, companies may wish to instigate procedures and minimum standards for crew transport boats as guidance for local agents that arrange transportation.

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