BSAFE

INCIDENT CASE STUDY No.17

BRITANNIA COMMENTARY | OCTOBER 2022

THE FOLLOWING COMMENTARY IS PART OF THE CASE STUDY MATERIAL AND HAS BEEN PREPARED TO CONSIDER SOME OF THE KEY ISSUES. THIS WILL SUPPORT REFLECTIVE LEARNING AND ENABLE DISCUSSION OF SOME OF THE CONTRIBUTORY FACTORS AND LESSONS LEARNED WITH PARTICULAR REFERENCE TO BEST PRACTICES.

FATAL FALL ONTO THE CARGO HOLD TANK TOP

THIS INCIDENT APPEARS TO BE THE RESULT OF THE ABSENCE OF, AND/OR INEFFECTIVE SAFETY BARRIERS, AND COULD HAVE BEEN AVOIDED HAD THESE BARRIERS BEEN THOROUGHLY IMPLEMENTED ONBOARD. THE CONTRIBUTING FACTORS AND LESSONS LEARNED ARE DISCUSSED BELOW.

ONBOARD FAMILIARISATION OF THE RIDING TEAM

According to the investigation report, the riding team members were engaged by the charterer to clean and prepare the vessel's cargo holds for the upcoming cargo. The riding team could not communicate well in English, with the exception of their team leader, which made effective communication challenging. Additionally, the riding team members did not attend the daily Tool Box Talks (TBTs) between ship's crew, rather, the details were conveyed to them by their team leader. This caused a gap in their familiarisation due to the fact that all communications had to go through their team leader.

Task familiarisation is very important in hazard prevention and therefore the riding team should have been involved in the daily toolbox meetings as this would have emphasised ship-specific information for the work related operations planned for the day, the manpower distribution, risk assessments carried out and at the same time, allowed the riding team to identify and understand their duties and workflow.

RISK ASSESSMENTS

Since the riding team was recognised as an external contracted working party and the risk assessment forms did not apply to them, the forms were not presented to the riding team's leader for review and acknowledgement. It was also understood from the team leader that the risk assessments were deemed unnecessary to be carried out on daily basis, owing to the belief that his team members had sufficient prior expertise and experience with the cleaning of cargo holds.

However, the involvement in risk assessments is very important for the ship's crew, including any shore supplied riding team working onboard, as this process identifies any potential hazards currently existing or which may appear in the workplace and during the proposed task. This would enable them to be aware of the hazards surrounding their work area and identify and implement measures to reduce the residual risk to ALARP (As Low As Reasonably Practicable). The company's safety provisions should always be adhered to and these should also be extended to any shore personnel such as contractual workers, as long as they are working onboard the ship. These personnel should always be briefed upon the safety risks associated with the tasks being carried out.

LACK OF PERSONAL PROTECTIVE EQUIPMENT

At the time when the incident occurred, the deceased was last seen wearing a safety helmet, safety gloves, a pair of safety glasses, hearing protection and rubber boots but no fall prevention device or safety harness. The safety investigation was unable to determine the exact cause of the fall into the cargo hold, but we can speculate that he may have overreached over the coaming and toppled in to the hold, or if he was standing on the coaming then he lost his balance, tripped or slipped. He could have slipped because his boots were wet, or it may just be due to a lack of situational awareness, and that he stepped backwards whilst too close to the edge.

The report indicated that the riding team had brought two safety harnesses from ashore. However, there was a discrepancy in information provided between the chief officer and the riding team leader, as one party claimed that personal protective equipment (PPE) was indeed provided whereas the other party disputed that statement, stating the charterer did not provide sufficient quantity for the remaining team members.

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LACK OF PERSONAL PROTECTIVE EQUIPMENT (continued)

After the incident, the inspector noticed the riding team were cleaning other cargo holds without the correct PPE or safety barriers, despite the master having been told that it was provided to the riding crew. The team leader would later again complain that his team had not been provided with proper equipment to work at heights by the vessel.

It is always recommended to have sufficient PPE provided for the job assigned and the PPE should be worn at all times throughout the process of hold cleaning, especially when working at height. If the Safety Management System (SMS) requires one, then before starting work a Permit to Work (PTW) should be completed, not only for the crew but for any third party workers. The need for possibly more than one PTW should not be overlooked.

While we may not know all the facts surrounding the fall, it is clear that if the deceased had been wearing a fall prevention device and safety harness then this fatal accident could have been avoided. Any fall prevention equipment should be carefully selected depending on the nature of the task and the risk, and may be a lanyard with or without a shock absorber, or a fall arrestor lifeline used with a full body safety harness. Safety belts should not be used. Although not a factor in this case, it should be remembered when wearing a fall prevention device and safety harness, if the fall prevention device is not hooked on to a suitable securing point, then it becomes useless.

ACCEPTANCE OF RISKS

The riding crew members were seen climbing from their ladder to other frames while doing the cleaning without any fall prevention devices of safety harnesses. They were grabbing onto the frames to move across the hopper.

Irrespective of the conflicting information on the PPE, it appears the risks were deemed to have been accepted by the ship's crew members and riding team as the obvious risks continued to be taken with no measures put in place to reduce the risk, even after the death of one of the team members.

SAFETY AWARENESS AND UNGUARDED OPENINGS

It was not mentioned if any safety line had been rigged across openings, as a safeguarding barrier to make sure nobody leans over any open hatches. The open hatch coamings were left open, making any personnel working nearby vulnerable, which could be one of the contributing factor to this incident when they failed to identify the hazards surrounding these areas of work.

The investigator could not determine the exact and most immediate cause of the incident. However, it was believed that the deceased lost his footing when his centre of gravity was shifted inboard when he was either leaning over heavily when washing the inner coaming or he was standing on the coaming. However, the investigator could not completely rule out the possibility of the ship's motion, i.e. rolling due to swell or environmental conditions being a factor in what occurred.

Although there was no conclusive finding established by the investigators, it was inferred that guarded openings and proper safeguarding such as safety barriers, fall prevention devices and safety harness would ordinarily have prevented the deadly fall of the deceased or at the very least, lessened the effect of the fall.

INADEQUATE MONITORING

One of the arguments raised by the ship's crew members, was that they were engaged in simultaneous tasks elsewhere while the riding team were carrying out cargo hold cleaning and therefore they could not monitor their activities.

Furthermore, the ship's crewmembers and the riding team members were required to follow certain local regulations not to have physical contact and their work had to be separated during the Covid-19 pandemic period. Hence, the riding team members were left unsupervised and unattended during their cargo hold cleaning activities.

It is therefore important to plan for the manpower distribution and avoid situations where a riding team or even ship's crewmembers, are left unsupervised during their work, especially when working at height where the risks are greater, and too many incidents occur due to falls from height on ships.

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COMPLACENCY

In addition to the observations from the investigator, it was noted that safety awareness among the ship's crewmembers and also the riding team members had grossly diminished with regards to their job preparation and recounted some of the instances with complacency.

Complacent behaviour involves ignoring knowns risks due to a false sense of safety resulting from completing the activity without incidence in the past. This may have influenced the riding team's decision to carry out hold cleaning while working at a height without proper rigging of safety lines or wearing of fall prevention devices and safety harness.

Signs of complacency may include:

- Tasks being completed in a rush or without due consideration for safety and risk exposure when working near unguarded openings or working at height
- Making basic assumptions about safety and conducting insufficient or no job risk assessment
- Insufficient amount of PPE provided for the job assigned or performing work activities without the required PPE
- Lack of any Permit to Work, when needed due to the nature of the task, thus required safety provisions being missed.

For more information on this incident email **lossprevention@tindallriley.com**

THIS CASE STUDY IS DRAWN FROM THE INVESTIGATION REPORT PUBLISHED BY THE TRANSPORT MALTA – MARINE SAFETY INVESTIGATION UNIT (MSIU):

https://mtip.gov.mt/en/msiu/Documents/MV%20Intrepid_Final%20%20Safety%20Investigation%20Report.pdf