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INCIDENT CASE STUDY

No.2 | DECEMBER 2020

FATAL FALL FROM A LADDER

AN ABLE-BODIED SEAMEN (AB) ON BOARD A PRODUCT TANKER SUFFERED SEVERE INJURIES AFTER FALLING FROM A PORTABLE LADDER (FIGURE 1) WHILE CONDUCTING MAINTENANCE WORK ON THE LAUNCHING SYSTEM FOR THE SHIP'S FREE-FALL LIFEBOAT. DESPITE BEING ADMINISTERED FIRST AID IN THE SHIP'S HOSPITAL, HE TRAGICALLY DIED THREE HOURS AFTER THE INCIDENT.

FIGURE 1 THE LADDER AS POSITIONED BY THE AB TO REACH THE FORWARD HOOK. SOURCE: AIBN; USCG.

WHAT HAPPENED

A 42,893 gt product tanker was on route from South Korea to Los Angeles, where she was due to discharge her cargo of Jet A1 fuel. As it had been announced that a USCG inspection would take place while the vessel was alongside in Los Angeles, preparations were being made during the passage. As part of these preparations it was found that a lashing turnbuckle (Figure 2) for the free-fall lifeboat was defective due to corrosion, as the securing pin was seized.

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FIGURE 2 FIGURE 2 THE TURNBUCKLE AND THE PIN MARKED WITH A YELLOW CIRCLE) AFTER THE MAINTENANCE JOB HAD BEEN CARRIED OUT. SOURCE: AIBN; USCG

FIGURE 3 THE WORKING AREA FOR THE ORIGINALLY AGREED MAINTENANCE TASK (TURNBUCKLE MARKED WITH A YELLOW CIRCLE). SOURCE: AIBN; THOME SHIP MANAGEMENT PTE. LTD

WHAT HAPPENED (CONTINUED)

The chief officer informed both the bosun and the AB, who was to carry out the required maintenance work on the turnbuckle, that the job would only involve the removal of the remaining rust and painting of the turnbuckle. He also told the bosun that the AB should assist the rest of the deck crew in cleaning activities once the task was completed. The vessel was scheduled to arrive at Los Angeles the following day.

No work permit was issued as the work was planned to take place at a height of about one metre above deck and in an area fitted with railings (Figure 3). The chief officer carried out a verbal risk assessment of the maintenance job together with the two bosuns on board. As the wind was 10m/s and the ship was rolling moderately in 2 metre waves, it was decided that no working aloft would be allowed.

While performing the job, the AB observed that the forward hook on the davit of the free-fall lifeboat needed lubrication with WD40 penetrating oil. Having finished the work on the turnbuckle, the AB proceeded to the paint store, where the bosun was working, and asked him to assist him with the maintenance task on the forward hook by steadying a ladder he had positioned on deck below the lifeboat to reach the hook (Figure 1 and 4).

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FIGURE 4 THE FREE-FALL LIFEBOAT AND THE FORWARD HOOK (MARKED WITH A YELLOW CIRCLE). SOURCE: AIBN; USCG

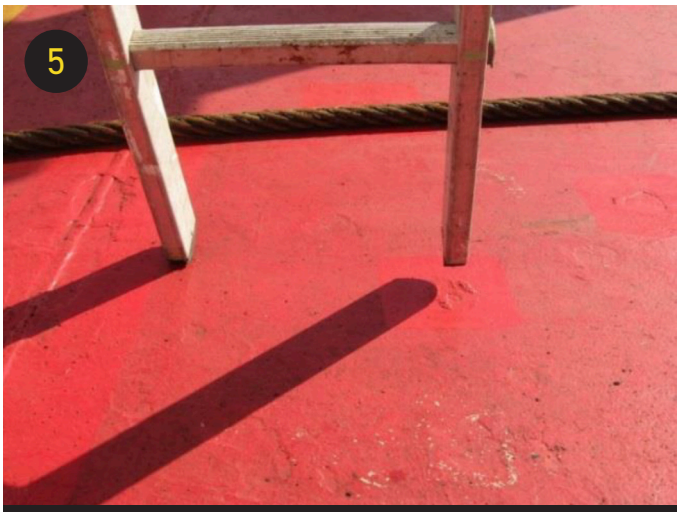

FIGURE 5 THE FEET OF THE LADDER IN THE ACCIDENT LOCATION. SOURCE: AIBN; USCG

WHAT HAPPENED (CONTINUED)

The height from the deck to the hook was about 4.8 metres. The ladder was 5 metres in length and was equipped with rubber feet at the bottom of each leg. However, the feet were significantly worn and both were not in firm contact with the deck (Figure 5). Despite the ladder being unstable, it was not secured by any other means.

The AB climbed up the ladder, reportedly not wearing any PPE. The bosun tried to stop him, but he nonetheless continued to assist by holding the ladder while the AB ascended. Having climbed part of the way up, the ladder suddenly slipped. The bosun was not able to hold the ladder so the AB fell and ending up lying unconscious on his back on the deck.

The bosun informed the chief officer and a stretcher was brought to the incident site. The AB was transferred to the ship's hospital where first aid was administered.

At 0935, the master contacted CIRM Roma for medical advice and at 1021 contacted the ship's agent requesting possible assistance from the USCG. The latter contacted the vessel at 1150 and confirmed that a helicopter could reach the ship within two and a half hours to carry out a medevac.

At 1200, two and a half hours after the incident, the AB stopped breathing. Although defibrillation was initiated, this was sadly unsuccessful and the AB was pronounced dead at 1230.

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LESSONS LEARNED

THE FOLLOWING LESSONS LEARNED HAVE BEEN IDENTIFIED BASED ON THE AVAILABLE INFORMATION IN THE INVESTIGATION REPORT AND ARE NOT INTENDED TO APPORTION BLAME ON THE INDIVIDUALS OR COMPANY INVOLVED:

Although the working aloft procedures in the company's Safety Management System (SMS) required a risk assessment and work permit to be prepared, these were not completed prior to the work starting. Therefore, the obvious risks of the tasks were not correctly assessed and mitigated.

It has not been possible to determine the exact reasons why the AB chose to conduct the work without following the requirements of the company's SMS. It is assumed that both he and the bosun were well aware of the requirements and the latter had been told by the chief officer that no work was to be carried out at height.

The portable ladder was not appropriate for the task being undertaken; the poor condition of the feet meant they were not both in contact with the deck. The fact that it was not safely secured would also have contributed to it being unstable and probably contributed to the ladder slipping and the AB falling off it.

If the AB had used proper PPE while climbing the ladder, this would have afforded him some protection when he fell and may have reduced the severity of his injuries.

The incident would have been prevented if the bosun had stopped the job rather than assisting the AB by attempting to steady the ladder.

CONTACT

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

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