

Ref : DMA/AIFI/97/C 887

Date: 03/04/2018

Dear Captain
Good Day,

please find the following TWO LESSONS TO BE LEARNT regarding “fall into the water and fall from the crane over the hatch cover” :

Case 1: Seven-meter fall into the water

A bulk carrier was in the final stages of loading a cargo of iron ore. In order to read the outboard side draught marks, a rope ladder was rigged over the side adjacent to the marks. The deck officer on duty – of a large build and overweight – donned a non-inflatable lifevest before descending the ladder. As he neared the bottom of the ladder, about 7 metres below the ship’s deck, he called out to the rating on deck saying he was having difficulty.

The rating saw the officer struggling to hold on to the ladder and then falling into the water. The rating threw a nearby lifebuoy to the officer, and it landed a few metres away from him. The officer struggled to reach the lifebuoy. However, because of the sea and swell (1.4m sea on a 0.4m swell) and possibly his own physical fitness levels, he was unable to get to it.

After raising the alarm, the rating then climbed down the ladder and entered the water in an attempt to save the officer. The rating had difficulty breathing and swimming in the rough, cold sea water. He was unable to reach the officer so he returned to the ladder.

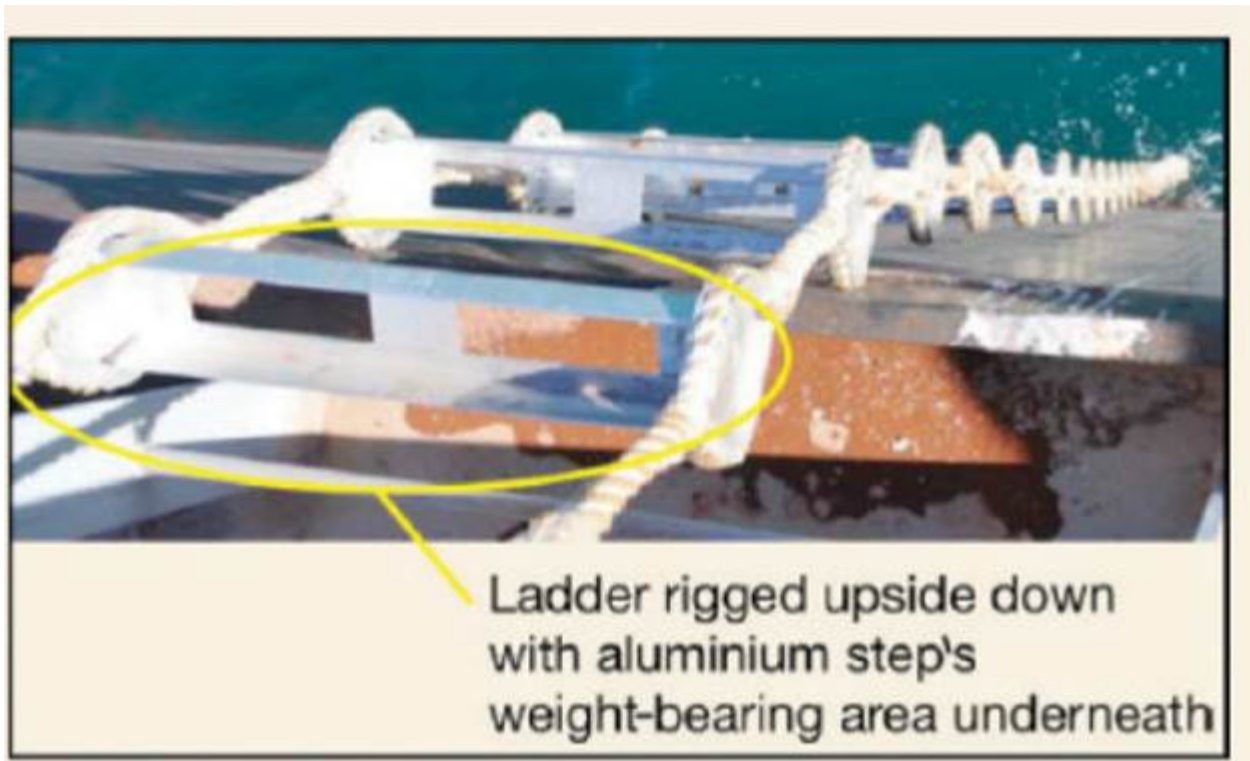
Other crew mustered for the rescue. The accommodation ladder and pilot ladder were lowered to the water to assist in rescue. Crew were able to drag the victim on to the ladder’s lower platform and immediately began cardio pulmonary resuscitation (CPR) while the accommodation ladder was being raised to deck level with the men on its lower platform. Soon, shore paramedics arrived and CPR was continued, but the victim was later declared dead.

An investigation later found that the victim had gone over the side without fall protection on a ladder that was installed upside down.

Lessons learned

- In many cases, little attention is paid to planning apparently straightforward tasks, such as using a rope ladder. This can lead to important considerations not being taken into account, including the experience and physical ability of persons undertaking the task, not to mention the actual installation of the ladder.

- A 7-metre descent (presumably then followed by an ascent) on a rope ladder is a feat that should be attempted only by those who are physically fit.
- A good rule of thumb is that fall protection should be used in cases where a crew member is at risk of falling 2.4 metres or more.
- In this case, the lifejacket worn was well intentioned but had little effect, because sea conditions were not safe.



Case 2: Eight meter fall from crane jib onto the hatch cover

Stvedores stopped cargo operations on a vessel, stating that the vessel's cranes were not in good order. A cargo gear survey was scheduled with the classification society. During the two-day delay waiting for the surveyor, the crew took the opportunity to carry out rust removal and painting on the cranes.

Shortly afterwards, the port facility's health and safety (H&S) team learned that the crew on the vessel were working on cranes at height without full fall-protection equipment. After the H&S team intervened, work on the cranes was stopped. Later that day an H&S officer witnessed the

crew again working at height on the cranes without fall protection. The H&S officer informed the Master that under no circumstances should the crew work without proper personal protective equipment.

With the survey completed, and the cranes ostensibly returned to a safe condition, cargo operations resumed. However, the stevedores were unhappy with the condition of the hoisting wires on numbers two and four cranes. The following day the crew fitted a new hoisting wire on to number four crane, using the only spare wire on board.

Once the cargo operations were finished the vessel departed port. While at sea the deck crew assembled on deck to change the wire on number two crane using the old wire from number four crane. The wire was lowered to the deck where the end was cut off neatly so that it could be connected to the new wire with a cable sock. However, as they were bringing the replacement wire through the rigging it got snagged at the connection with the cable sock.

In order to free the cable, the bosun put on his safety harness and climbed up the ladder. Once aloft he secured his safety harness lanyard around a luffing wire and walked along the jib to reach the point where the cable sock had snagged. When he came to the cross-beam, he could not reach the snag with his lanyard still secured around the luffing wire. He unhooked the lanyard to relocate it to a lower wire so that he could reach the cable sock.

At some point while moving the lanyard between the luffing wires, the bosun lost his balance and fell 8 metres on to number two hatch cover. The bosun was unconscious and bleeding. First aid was administered and a paramedic arrived soon after by helicopter, but the bosun was confirmed dead.

It is likely that the bosun had either removed the locking collar on his safety harness lanyard in preparation for removing the hook from the upper luffing wire, or had clipped on to the lower luffing wire but had yet to engage the locking collar. Any sideways force on the gate as the shock-load came on to the lanyard could have caused the gate to burst out and disconnect the harness from the anchor point.

The hooks on the harnesses were of mild steel with manually lockable gates. The hooks were not stamped with any identification, safe working load or indication that they met the recommended standard for connectors used in personal fall-protection systems. They were not of a type suitable for looping around an attachment point and back on to the lanyard.

Lessons learned

- Working at height is a risky activity and all crew should use suitable safety harnesses that are fit for the intended tasks.

- Never replace a worn wire with another worn wire.

- Attaching a safety harness by passing it through or around the securing point and back on to the lanyard is a dangerous practice that can result in inadvertent release unless the lanyard and hook are designed for that purpose.

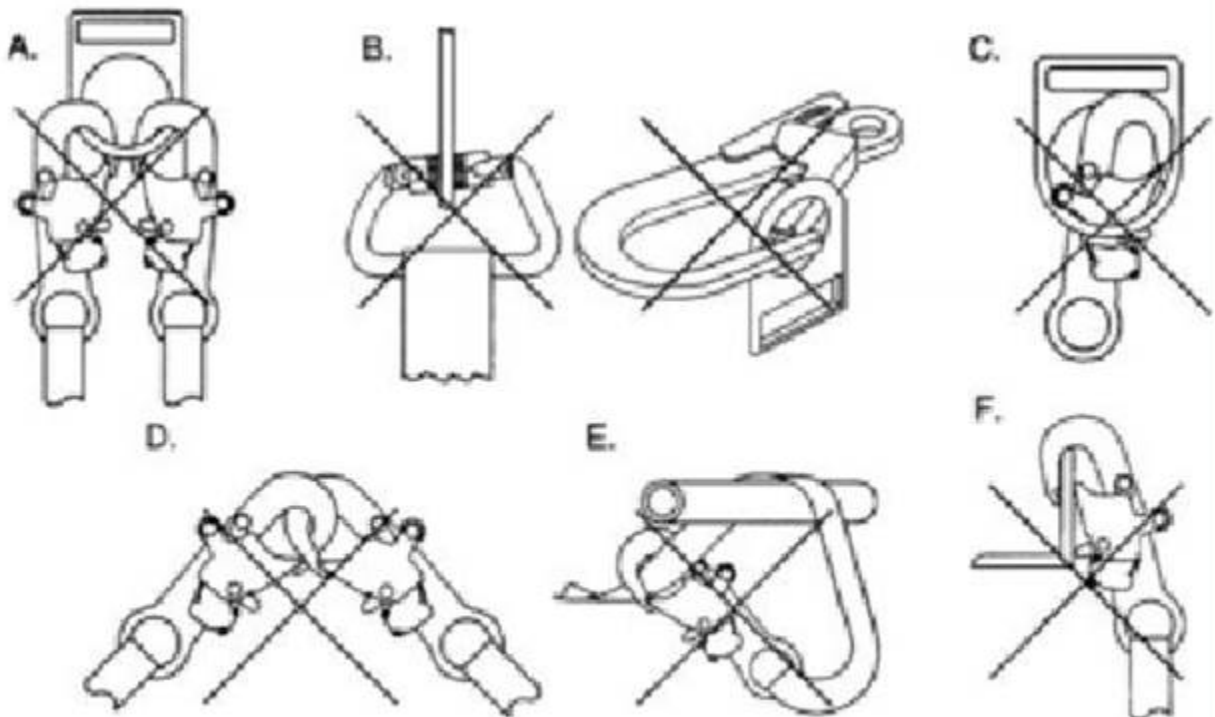
- Dual lanyards are the accepted norm to enable safe transfers between securing points; one is always connected while the other is transferred.

- As per the International Safety Equipment Association's Personal Fall Protection Equipment Guide (extract below), there are many ways to connect a fall protection attachment incorrectly.

Editor's note: Several events in this sequence indicate a less-than-adequate safety culture and poor safety leadership. Accidents like this one just don't happen, but are 'created' by these preconditions.

Examples of IMPROPER connections

- A. Do not attach two or more snap hooks or carabiners to a single D-ring.
- B. Do not load a carabiner or snap hook at the gate.
- C. Ensure that connections are compatible and secure.
- D. Do not attach two snap hooks or carabiners together.
- E. Do not tie back on a lanyard unless specifically designed to do so by the manufacturer.
- F. Ensure that the snap hook is closed and locked.



You are requested to confirm receipt, discuss the contents in the next consolidated meeting on board & keep a copy in the file DA-11 .

Best Regards,
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