A fatal fall accident arising from climbing down vertical ladder

To: Shipowners, Ship Managers, Ship Operators, Masters, Officers and Crew

Summary

At the time of the accident, a second engineer led the repair team to carry out repair work inside the duct keel through the access trunk. While he was climbing down the vertical ladder inside the trunk, his lifeline entangled with the ladder. When he tried to loosen it, he suddenly fell directly onto the stringer deck from a height of 3 metres. Although the second engineer was rescued, he was declared dead in the hospital on the same day. This Note draws the attention of shipowners, ship managers, ship operators, masters, officers, and crew to the lessons learnt from this accident.

The Incident

1. A Hong Kong registered ore carrier was en route from Cao Fei Dian, China to Port Hedland, Australia for loading cargo. During the voyage, the second engineer led the repair team through the access trunk at No.3 cargo hold forward bulkhead (the access trunk) to the duct keel for the repair work. Halfway down, the second engineer noticed that his lifeline, which was being controlled by the chief engineer outside the access trunk, entangled with the vertical ladder. Without equipping with a fall arrestor, he tried to disconnect his lanyard from the lifeline but suddenly he fell from a height of 3 metres to the stringer deck from the vertical ladder.

2. A rescue team was immediately organized on board. After more than an hour, the second engineer, who was in conscious state, was stretchered out of the access trunk and moved to the ship’s hospital for first-aid treatment with medical advice of the Telemedical Assistance Service (TMAS). Around six hours later, the second engineer was sent by a helicopter to the nearest port in Kaohsiung, Taiwan, for urgent treatment. Unfortunately, he was declared dead in the hospital soon after arrival.
3. The investigation revealed that the second engineer underestimated the risks of working aloft on the vertical ladder to untangle the lifeline from the ladder without any fall prevention. The work arrangement and cooperation of team members were inadequate to avoid the happening of the accident.

4. The investigation also identified that the enclosed space rescue team was not trained effectively; the master failed to request the helicopter rescue service at an earlier stage; and the atmospheric testing for enclosed space entry was not carried out by an appropriate method.

**Lessons Learnt**

5. In order to avoid recurrence of similar accidents in the future, masters, officers, and crew of vessels should:
   
   (a) enhance safety awareness of climbing ladders and safety of working aloft in accordance with the Code of Safe Working Practices for Merchant Seafarers;

   (b) enhance the enclosed space entry and rescue drill and training; and

   (c) enhance the determination of the need for evacuation based on the condition of a patient or injured person on board as well as strengthening effective communication with TMAS and the obligation to follow their suggestion.

6. The attention of shipowners, ship managers, ship operators, masters, officers and crew is drawn to the lessons learnt above.

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