



香港商船資訊

HONG KONG MERCHANT SHIPPING INFORMATION NOTE

A fatal electrocution accident happened when using electric hoist for lifting operation

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

Summary

A fitter on board a Hong Kong registered container ship was electrocuted when he tried to shake the chain of an electric hoist during lifting operation to lower down main engine spare part through engine room access hatch for main engine repair works prior to sailing. This Information Note draws the attention of the shipowners, ship managers, ship operators, masters, officers and crew to the lessons learnt from the accident.

The Incident

1. When a Hong Kong registered container ship encountered main engine problem, she dropped anchor and waited until an engine spare part arrived by a launch. The crew used an electric hoist to lift the spare part from the launch and lower down into the engine room through an access hatch, but it was stuck in the hatch.
2. When a fitter tried to shake the lifting chain of the electric hoist by his hands to release the stuck of the spare part in the hatch, he suffered electric shock and lost his conscious. He was sent to a hospital at shore by a rescue launch and he was declared dead in the hospital on the same day.
3. Followings are the contributory factors of the accident:
 - i. a non-marine type electric hoist having an operating voltage lower than the ship's supply was used on board; in addition, it was not maintained properly and was not operated within operation limits recommended by the manufacturer during the lifting operation;
 - ii. the risk assessment and supervision of the work were not carried out properly to ensure safety of crew;

- iii. electrical faults occurred in the electric hoist was due to rough handling of the equipment and there was no earth fault protection of the equipment; and
- iv. the pair of cotton gloves used by the deceased was wetted by sweat causing him electrocuted by electric current when he shook the lifting chain with his hands.

Lessons learnt

- 4. Followings are lessons learnt from the incident:
 - i. only marine type electric hoist having an operating voltage compatible with the ship's supply is to be used on board;
 - ii. portable electric tools should be properly maintained and operated within operation limits recommended by maker;
 - iii. Crew members who use electric hoist as a work equipment, or who supervise its use, should have adequate training covering the safety issues and limitation of the equipment; and
 - iv. A thorough risk assessment and close supervision of the work by a competent person are critical in safely performing lifting operations, and all safety precautions should be taken to avoid any potential danger.

- 5. The attention of the shipowners, ship managers, ship operators, masters, officers and crew is drawn on the lessons learnt above.

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17 February 2017