

MARINE DEPARTMENT NOTICE NO. 115/2022

(Marine Industrial Safety)

Fatal Accident during lifting operation

The Incident

A fatal marine industrial accident happened on board a locally licensed dumb lighter (*the vessel*) at To Kwa Wan Typhoon Shelter during a lifting operation. The operator of the derrick crane (*the crane*) of *the vessel* was responsible for operating *the crane*, and two workers were responsible for hanging the slings on the hook of *the crane* during the lifting operation. At the time of the incident, when *the crane* operator started to lift the derrick boom, the first cargo runner suddenly broke and bounced to the bow of *the vessel*. Some of the pulley's accessories dropped and hit one of the workers who was walking towards the stern on his way out. The worker was eventually certified dead.

2. The investigation revealed that the contributory factor leading to the accident was a modified pneumatic control unit of *the crane* causing air leakage in the control unit, driving the hook of the pulley block upwards to touch the end of the boom without being noticed, resulting in the breakage of the first cargo runner.

3. The investigation also revealed that the cargo runners connecting to the hooks of the pulley blocks lacked regular maintenance and inspection, and their corrosion and wear and tear were not discovered in time; *the crane* operator did not operate *the crane* with sufficient care to ensure that the hooks of the pulley blocks were in proper positions when operating *the crane*; *the crane* operator did not inform the workers about the safety risk of *the crane*, and the workers did not pay attention to the safety requirements for keeping away from *the crane*; and the pulley blocks and cargo runners of *the crane* did not tally with the registration information in the certificates of test and examination, and were not examined by a competent examiner or a competent person according to the regulation.

Lessons Learnt

4. In order to avoid the recurrence of similar accidents in the future, the shipowner shall:

- (a) instruct the relevant person to ensure all machinery and equipment of *the crane* are in safe operating conditions, and prohibit any unauthorised modification of the pneumatic control device of *the crane*;
- (b) enhance the periodic testing, examination, and maintenance of *the crane*, and strictly monitor the update of the information on the Register of Lifting Appliances and Lifting Gear;
- (c) publicise the risk of safety operation to *the crane* operator and workers; and
- (d) consider using higher-quality and stronger-protection cargo runners to ensure that their performance and quality are up to standard by taking into account the effect of the marine operating environment.

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