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HONG KONG MERCHANT SHIPPING INFORMATION NOTE

Fatal accident happened while welding bunker pipes on the main deck

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

Summary

A Hong Kong registered chemical/oil tanker (the vessel) carried out tank cleaning on board at sea during her ballast voyage from Mazhi anchorage, China, to Khor Fakkan, UAE. A fatal accident occurred on board when a crew member was carrying out welding repair of the leak in the bunker pipes on the main deck with its hot slag ignited the vapour of the effluent mixture of methanol and fresh water discharged on the main deck during the tank cleaning process, resulting in the death of the Bosun. 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 chemical/oil tanker (the vessel) carried out tank cleaning on board at sea during her ballast voyage from Mazhi anchorage, China, to Khor Fakkan, UAE. The Fitter carried out welding repair of the leak in the bunker pipes on the port side main deck when a forward cargo oil tank (COT) was having a tank cleaning with its effluent mixture of methanol and fresh water discharged onto the main deck. As the hot slag from the welding ignited the vapour of the effluent flowing downstream from the COT to the welding area, a fire suddenly broke out on the port side main deck and spread forward along the passageway. The Pumpman saw the fire on the main deck and called the Bosun inside the COT who was manually cleaning it to come out immediately. When the Bosun came out, his boiler suit was on fire and he suffered a severe burn injury. Although the Bosun was evacuated to a hospital ashore by helicopter for medical treatment, he was declared dead the next day.

2. The investigation revealed that the main contributory factors were insufficient safety awareness of the crew members as follows:

- (a) inherent risks of explosion and fire caused by welding were not identified and the corresponding safety control measures, e.g. proper supervision and suitable fire extinguishers to be readily available, were not implemented according to the Code of Safe Working Practices for the Merchant Seafarers (the Code) and the Safety Management System (SMS);
- (b) lack of coordination and communication between the deck and engine departments;
- (c) permit-to-work of hot work had not been arranged for issuing, causing the welding repair to proceed without safety precautions in place; and
- (d) the COT cleaning was conducted in an unsafe and irresponsible manner which was not carried out according to the Procedures and Arrangements Manual (the PA Manual) in accordance with MARPOL 73/78 Annex II, the Code and SMS.

Lessons Learnt

3. In order to avoid recurrence of similar accidents in the future, all masters, officers, and crew members of vessels should:

- (a) enhance training on enclosed space entry and hot work outside engine room workshop, including the awareness of the fire hazard involved;
- (b) enhance the communication between the deck and engine departments for the daily work plan;
- (c) strictly follow the safety requirements in the Code and the SMS of the vessel, in particular, the hot work and enclosed space entry; and
- (d) strictly follow the tank cleaning procedure in the PA Manual.

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

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