



# 香 港 商 船 資 訊

## HONG KONG MERCHANT SHIPPING INFORMATION NOTE

### Safe Loading of “iron-ore-fines” cargo in bulk

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

#### *Summary*

A Hong Kong registered ship laden with a cargo of “iron-ore-fines” in bulk developed a heavy list at sea due to shifting of cargo after departure. As a result the vessel capsized and sank. This information note draws the attention of Shipowners, Ship Managers, Ship Operators, Masters and Officers to the importance of adhering to the provisions in the BC/IMSBC Code<sup>1</sup> for the safety precautions on loading such cargo or other bulk cargoes which may liquefy.

#### **The Incident**

1. During the rainy southwest monsoon season in India, a Hong Kong registered general cargo ship carrying a cargo of “iron-ore-fines” in bulk developed a heavy list (angle of loll) to the starboard side under heavy weather shortly after departure. Without sounding the tanks and checking the ship’s stability, the Master attempted to rectify the list by taking ballast into all the port side double bottom ballast tanks simultaneously. When the vessel became almost upright, the Master stopped ballasting, turned the vessel back and anchored the vessel outside the loading port.

2. Shortly afterwards the vessel started listing to the port side in the anchorage. The Master immediately arranged for all the port side ballast tanks to be de-ballasted simultaneously and the vessel ended up listing further to port. The Master then ordered abandonment of the ship and all the crew were rescued. The vessel finally capsized and sank in the anchorage the next day.

3. The most probable cause of the heavy listing (angle of loll) of the vessel was the shifting of cargo that liquefied in the cargo holds as a result of excessive moisture content. The main contributing factors leading to the incident were:

- the Master and the Chief Officer failed to comply with the requirements of the BC/IMSBC Code in the loading of such cargo;
- the Master and the Chief Officer did not exchange information effectively in cargo operation and when the vessel was in a heavy list, and the Safety Management System was not implemented effectively on board; and

<sup>1</sup> The BC Code is the Code of Safe Practice for Solid Bulk Cargoes, 2004 which will be replaced by the IMSBC Code, i.e. the International Maritime Solid Bulk Cargoes Code, on 1 January 2011.

- the Master and the Chief Officer did not ensure that the vessel had adequate stability and that all hatch covers were properly secured prior to sailing.

## **Lessons Learnt**

4. The lessons learnt from this incident are:

- the Master and the Chief Officer had mistakenly identified the cargo of “iron-ore-fines” as iron ore, which is not liable to liquefy and does not possess chemical hazards under Group C in the BC/IMSBC Code, and only took the safety precautions for loading Group C cargo;
- “iron-ore-fines” is a common trade name and is not listed as a Bulk Cargo Shipping Name in the BC/IMSBC Code. However, due to its cargo characteristics, it should always be treated as cargo that is liable to liquefy regardless of its origin, and the relevant provisions in the BC/IMSBC Code should be strictly followed in the loading of such cargo;
- such cargo shall only be accepted for loading when the actual moisture content of the cargo is less than its transportable moisture limit;
- the Master and the Chief Officer should ensure that the vessel had adequate stability prior to sailing and before attempting to rectify the heavy list by appropriate ballasting measures;
- it is important to ensure proper securing of all hatch covers prior to sailing;
- Before abandoning the ship, the Master should make a quick assessment on the ship’s stability condition to consider the option of beaching the ship.

5. The attention of Shipowners, Ship Managers, Ship Operators, Masters and Officers is drawn to the lessons learnt above.

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