



香 港 商 船 資 訊

HONG KONG MERCHANT SHIPPING INFORMATION NOTE

Safe Loading of Cargo in Bulk of Nickel Ore

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

Summary

A Hong Kong registered ship capsized and sank in the waters of Zhuhai, China. The ship was carrying nickel ore cargo which would liquefy when it had an excessive moisture content. 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 International Maritime Solid Bulk Cargoes Code (IMSBC Code) for the safety precautions on loading cargo elements which are prone to liquefaction, such as nickel ore.

The Incident

1. On 14 August 2013, while a Hong Kong registered ship was carrying a full cargo of nickel ore in bulk from Indonesia to China, she listed, capsized and sank in an anchorage area of Zhuhai, China after encountering a super typhoon. Fortunately, all crewmembers were rescued.
2. Investigation into the incident identified that the probable cause of the incident was a cargo shift caused by liquefaction of the nickel ore. The shift of nickel ore in the holds of the ship caused a list to the ship. The master mistakenly pumped water to the wrong ballast tank, which worsened the situation. The angle of list progressively increased and caused the ship to capsize and sink under the severe weather condition.

Lessons Learnt

3. The lessons learnt from this incident are:
 - The nickel ore cargo was loaded on board with its moisture content exceeding the Transportable Moisture Limit (TML). Cargo shift was caused by liquefaction of the nickel ore during the voyage. Furthermore, both the master and the chief officer failed to comply with the provisions of the IMSBC Code in the loading of cargo which may liquefy;

- Appropriate and adequate measures for the ship to take shelter from the typhoon were not taken. The problem of liquefaction of cargo was further worsened by the severe vibration arising from the severe weather condition; and
- The master mistakenly pumped in ballast water to counteract the listing due to cargo sliding. The situation became worse due to loss of buoyance and stability of the ship.

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

5. The MSIN No. 21/2006, 30/2010 and 48/2011 should be referred also while loading liquefying cargo such as Fluorspar and Iron-ore-fines.

Marine Department
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