Advice on the Dangers of Flooding of Forward Compartments

To: Shipowners, ship managers and ship masters

Summary

This Note provides advice to the masters of bulk carriers on the possible dangerous consequences of water entry into forward spaces and consequent reduction of freeboard.

1. The Maritime Safety Committee (MSC), at its 74th session (30 May to 8 June 2001), considered the recommendations of the Re-opened Formal Investigation into the loss of the motor vessel "Derbyshire", carried out by the United Kingdom, in particular that masters of bulk carriers should be made fully aware of the possible dangerous consequences of water entry into forward spaces and consequent reduction of freeboard.

2. A detailed survey of the wreck in 1997 revealed that the initial cause of the sinking was progressive flooding of forward spaces. The research subsequent to the findings at the wreck site showed that large volumes of water can be taken in through damaged air pipes in the forward spaces causing the ship to trim by the head and reduce the effective bow height. The research indicates that a reduction in bow height can lead to an increase in the encountering probability of a hatch-breaking wave under severe weather conditions. The hatch covers of Nos. 1 and 2 cargo holds of motor vessel "Derbyshire" subsequently failed allowing rapid flooding of those spaces. The ship was then in a condition beyond its survival capability.

3. The Advice on the dangers of flooding of forward compartments contained in MSC/Circ.995 is annexed to this Note. It advises the master to regularly detect any reduction in the watertight integrity of the closing arrangements after initial battening down and to consider early evasive action in the event that severe weather systems approach the region in which the ship is navigating. Shipowners, managers and masters should take note of the Advice and act accordingly.

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