



香 港 商 船 資 訊

HONG KONG MERCHANT SHIPPING INFORMATION NOTE

Fatal accident involving parting of mooring rope during vessel's berthing

To : Shipowners, Ship Managers, Ship Operators, Masters, Officers and crew on board Hong Kong registered ships

Summary

During berthing of a Hong Kong registered container vessel in Kobe, Japan, a mooring rope on board the vessel parted and killed two workmen at the berth. This Note draws the attention of the shipowners, ship managers, ship operators, Masters, officers and crew on board Hong Kong registered ships on the important lessons learnt from this accident.

The Incident

1. During berthing of a Hong Kong registered ship at a container terminal in Kobe, Japan, a mooring rope on board the vessel parted. Snapping of the rope hit and killed two workmen engaged in the mooring operation.
2. The Japan Transport Safety Board conducted the investigation into the accident and the report can be found at <http://www.mlit.go.jp/jtsb/marrep.html>. The findings of the investigation are:
 - a) While the vessel was berthing, the pilot was actually in command of the vessel and under the pilot's advice, the Master and the Chief Officer at the bridge were directing the Second Officer and the Third Officer, who was at the bow and stern respectively;
 - b) The parted rope, although it was of synthetic fiber material and used for less than a year, was worn due to repetitive use while touching the Bend Point[#];

[#] Bend Point - In order to increase the container loading capacity on the deck, the vessel was designed with a large bow flare that spanned almost the full breadth of the ship such that the sheer strake and the outside plating touched at almost a right angle.

- c) The Master, under the situation where the ship was running over the designated berthing point, directed the Second Officer to heave the line moored onto the bitt at the berth, in order to reduce the forward headway by using the line;
- d) The Second Officer, while commanding on the Bow Commanding Post, from where the Bend Point was not visible, gave the direction to heave the line without knowing that the line was touching the Bend Point;
- e) The line, while touching the Bend Point, broke due to the additional tensions, including an impulsive tension due to the winding moment in the hawser drum and tensions due to the forward headway of about 0.3 knot and the wind pressure;
- f) The two workmen were hit, while working inside the hazardous zone of snap back, by the line which had snapped-back at the moment of breaking; and
- g) The employer had not provided the workmen with safety instructions including information specified the snap-back hazardous zone of a broken rope under tension, or in case of operations close to a mooring rope under tension, to complete the work swiftly and to leave the snap-back hazardous zone as promptly as possible.

Lesson learnt

- 3. The following important lessons should be learnt from this accident:
 - a) Mooring ropes must be inspected regularly to ensure that they are in good working condition; and the deteriorated ropes should be repaired or renewed;
 - b) Attention should be paid to the route of mooring ropes and the bitts during mooring in order to prevent mooring ropes from touching corners such as Bent Point; and
 - c) Crew and other persons should be advised not to stay inside the snap-back hazardous zones of any mooring lines, as far as practicable

- 4. The attention of Shipowners, Ship Managers, Ship Operators, Masters, Officers and crew on board ships is drawn to the important lessons learnt from this accident.

Marine Department
Multi-lateral Policy Division

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