



Report of Investigation  
into the Crew Fatality and  
Injury while Working at the  
Aft Deck of M.V. Hebei Progress  
on 18 August 2005



The Hong Kong Special Administrative Region  
Marine Department  
Marine Accident Investigation Section

## **Purpose of Investigation**

This incident is investigated, and published in accordance with the IMO Code for the Investigation of Marine Casualties and Incidents promulgated under IMO Assembly Resolution A.849(20). The purpose of this investigation conducted by the Marine Accident Investigation and Shipping Security Policy Branch (MAISSPB) of Marine Department is to determine the circumstances and the causes of the incident with the aim of improving the safety of life at sea and avoiding similar incidents in future.

The conclusions drawn in this report aim to identify the different factors contributing to the incident. They are not intended to apportion blame or liability towards any particular organization or individual except so far as necessary to achieve the said purpose.

The MAISSPB has no involvement in any prosecution or disciplinary action that may be taken by the Marine Department or others resulting from this accident.

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## 1. Summary

- 1.1 On 18 August 2005, the Hong Kong registered ship “Heibei Progress” (the Vessel) was en-route from Brazil to China via south of Africa, ship’s course at 075° and speed 8.5 knots. At around 1000, a man overboard accident occurred when the Vessel was passing the Cape of Good Hope in heavy sea condition. The Bosun was washed over the shipside by the following sea waves which shipped over the aft deck. At time of the accident the Bosun was recovering the mooring ropes with three other crews at the aft deck. The waves also caused injury to the other three crews. After the accident the ship returned to search for the Bosun but could not find him.
- 1.2 The Master informed the coastal radio in South Africa of the man overboard incident and sought for assistance. Two cargo vessels nearby and a fixed wing aircraft were acquired by the coastal authorities and joined the search operation. However, due to the severe weather condition in the sea area, the Bosun was not found. The three injuries were sent ashore to hospital in Port Elizabeth for medical treatment.

## 2. Description of the Vessel

### 2.1 M.V. "Hebei Progress"

IMO No.	:	8132859
Call Sign	:	VRXW6
Type	:	Bulk Carrier
Length	:	253 m
Breadth	:	32 m
Gross Tonnage:	:	39633
Classification Society	:	China Classification Society
Year of Built	:	1982
Propulsion Power	:	Sulzer 6RND-90 / 12,789 kW

### **3. Sources of Evidence**

3.1 The Master of the Vessel;

3.2 The Chief Officer and Crews of the Vessel;

3.3 The ship management company of the Vessel;

3.4 Accident report submitted by the Master of the Vessel;

3.5 The ship's file in the Hong Kong Register.

#### **4. Outline of Events**

- 4.1 In the morning of 18 August 2005, the Vessel was passing the Cape of Good Hope at south of Africa continent in approximate position 34° 24.4'S 26° 22.3'E. The wind and sea condition was very rough at Beaufort Scale 9. Large sea waves and swell were approaching from west-north-west direction. As the vessel was proceeding on a course of 075° at a speed of 8.5 knots, the waves were following behind the Vessel. Occasionally the waves overtook and broke over at the stern and swamped over the after deck.
- 4.2 At about 1000 on a routine check to the aft deck, the Chief Officer found the steel rack locker containing the mooring ropes had been destroyed by the force of the sea wave. The waves washed the mooring ropes out of the locker and scattered them over the aft deck. A certain length of a mooring rope had been slid over the shipside with the end hanging over the moving sea. The Chief Officer feared that it might foul the ship's propeller.
- 4.3 The Chief Officer mustered the crews for emergency recovery of the mooring ropes. While going out for work the crews were provided with safety harnesses and lookouts were posted to alert the approaching of sea waves. However, in an attempt to recover the rope that had been washed over the side, the Bosun and three crews untied their safety harnesses and rushed to the aft deck. At this time a solid green sea was shipped over the stern and swamped onto the crews. The force of the wave washed the Bosun overboard and caused injury to the other three crews.
- 4.4 The Master was informed immediately of the accident. He altered the course to 280° and returned to its previous track to search for the Bosun. The Master also informed the Port Elizabeth coastal radio and sought for assistance. Two cargo vessels arrived in the area and a fixed wing aircraft later joined the search operation.
- 4.5 The search continued until 1632 but could not find the Bosun. The Vessel proceeded to port Elizabeth where the three injured crews were taken to shore by helicopter.

## 5. Analysis of Evidences

### Experience of the missing Bosun and the Injured Crews

- 5.1 The Bosun was an experienced seaman and had been working in the capacity for many years. The other three injured crews had been working onboard the Vessel for over three months.

### Stowage of Mooring Ropes during Sea Passage

- 5.2 For the voyage from Brazil to China, the Vessel would need to navigate across the South Atlantic and Indian Ocean where heavy weather would be anticipated. The weather situation would be particularly severe in the sea area at south of Cape of Good Hope where the Agulhas current is notorious in bringing rough sea condition in the area. Before commencing a sea voyage, it would be a normal safe practice to stow the mooring ropes below deck inside the rope locker in order to avoid them from exposure to rough weather.
- 5.3 During sheltered voyage between nearby ports, some crews may stow the mooring ropes directly on deck for immediate use because the voyage time between ports is short. However, this practice should only be carried out when the voyage is between relatively calm waters. It should be note that under no circumstances the mooring ropes should be left on an open deck space while the vessel is in a sea passage.

### Co-ordination between the Master and the Chief Officer and the Safe Working Environment

- 5.4 When the Chief Officer knew that the aft mooring ropes had been swamped by waves and scattered on deck, the crew were mustered for the emergency recovery operation. Waves at height of 9 to 10 metres were approaching from stern and occasionally swamped the aft deck. Under this situation it would be dangerous to carry out any duty on the aft deck. However, in case of emergency that the loosen rope might foul the ship's propeller, the severe weather condition and coordination with the ship's navigation should be carefully observed before deploying the crews for the operation.
- 5.5 Under the severe weather situation, the Vessel had to change its course to provide a sheltered working area to the crews. It appeared that the Chief Officer had not informed the Master of the emergency recovery operation of the mooring ropes at the ship's aft deck. In an emergency situation, it is important that the Master should be informed so that he could co-ordinate the navigation

of the Vessel so as to provide a safe working environment for the crews. As the seas were approaching from general westerly direction, under the situation the Master could have provided a sheltered area for the crews by turning the ship to a westerly course so that the aft deck could be sheltered from the waves. However, it appeared that the ship was still proceeding on an easterly course when the accident occurred with the aft working area directly exposed to the following sea. Although the Master had finally changed the Vessel to westerly course after the accident occurred to search for the Bosun, such action was, however, could have taken earlier.

#### The Safety Culture of the Crew

- 5.6 The crews did not assess adequately the wave condition before carrying out work at the aft deck. There was a general lack of appreciation of the dangerous nature of the operation. Working on deck in a rough sea situation is dangerous. The force of waves could kill anyone in the path as they swamped. In this situation the Chief Officer feared that the loosening of mooring ropes might be caught into the ship's propeller, which might lead to stoppage of vessel in rough sea. He however could have initiated a better planning in coordinating with the Master before sending the crews into operation.
- 5.7 In an attempt to retrieve the rope from water, four crews untied their safety harnesses and rushed to the aft deck to recover the rope which slid over the shipside. This sudden action had rendered them unprotected from the waves and the danger of being washed overboard. When carrying out any work in hazardous situation it is important that safety of life should be the paramount consideration. Selfless acts by individuals in undertaking work of a dangerous nature without taking reasonable and necessary precautions will put them at risk and should not be encouraged.

## **6. Conclusions**

The following conclusions are drawn based on the evidences obtained and the analysis described above:

- 6.1 On 18 August 2005, the Hong Kong registered ship “Hebei Progress” was passing the Cape of Good Hope in heavy sea condition. At around 1000 ship’s time, the mooring ropes which had been stowed at the aft deck were swamped by the heavy following sea and became loosen from its securing. The ship’s crews were deployed to recover the mooring ropes. During the operation a solid green sea swamped the aft deck, it washed the Bosun overboard and caused injury to three other crewmembers. After the accident the ship returned for searching but could not find the Bosun.
- 6.2 The mooring ropes had not been stowed in a sheltered space during the sea passage.
- 6.3 The crews did not assess adequately the wave condition before carrying out the emergency recovery of mooring ropes at the aft deck. There was a general lack of appreciation of the dangerous nature of the operation. The Chief Officer could have initiated a better planning in coordination with the Master before sending the crews into operation. Selfless acts by individuals in undertaking work of a dangerous nature without taking reasonable and necessary precautions will put them at risk and should not be encouraged.
- 6.4 The Master had not changed the ship’s course to alter the approaching direction of the sea waves in order to provide a sheltered quarter for the crew to work at the aft deck.

## **7. Recommendations**

- 7.1 A copy of the report should be sent to the ship management company of the Vessel. They should be advised of the findings of the accident and the importance of coordination onboard in an emergency operation. They should also be reminded that the crews should adopt the practice of good seamanship in the stowage of mooring ropes when transiting on a sea passage.
- 7.2 A Merchant Shipping Information Note should be issued to promulgate the lesson learnt from this accident.

## **8. Submissions**

- 8.1 In the event that the conduct of any person or organization is commented in an accident investigation report, it is the policy of the Marine Department to send a copy of the relevant part of the draft report to that person or organization for their comment.
- 8.2 The draft report was sent to the management company, the Chief Officer and Master of the Vessel at time of the incident. There was no reply from the management company and the Vessel.

18 April 2006