

Report of investigation into the death
of a Bosun onboard the Hong Kong
registered bulk carrier *Jumeirah
Beach* in the Yellow Sea

at position 33⁰35.9'N 123⁰16.4'E
on 2 June 2014



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

30 June 2015

Purpose of Investigation

This incident is investigated in accordance with the Code of the International Standards and Recommended Practices for a Safety Investigation into a Marine Casualty or Marine Incident (the Casualty Investigation Code) adopted by IMO Resolution MSC 255(84).

The purpose of this investigation conducted by the Marine Accident Investigation and Shipping Security Policy Branch (MAISSPB) of Marine Department, in pursuant to the Merchant Shipping Ordinance Cap. 281, the Merchant Shipping (Safety) Ordinance (Cap. 369), the Shipping and Port Control Ordinance (Cap. 313), or the Merchant Shipping (Local Vessels) Ordinance (Cap. 548), as appropriate, 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 incident 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 resulting from this incident.

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1 Summary

- 1.1 At about 1310 on 2 June 2014, a fatal accident happened on board the Hong Kong registered bulk carrier M.V. *Jumeirah Beach* while she was enroute to Dalian, Mainland China.
- 1.2 At the time of the accident, the bosun was standing on a stepping platform holding a water hose to cleanse the hatch coaming of No.2 cargo hold. He was found to have fallen down from the platform onto the deck, with the back of his head hitting against the deck. The adjustable headband of the safety helmet was slightly damaged. The stepping platform, of height about 0.85 meter above the main deck and located in between No.2 and No.3 cargo holds on the starboard side, was fitted to cover the piping on deck and for the crew to walk across the piping safely.
- 1.3 The other crewmembers working nearby immediately came over to help the bosun. The condition of the bosun worsened and upon the advice of the International Radio Medical Centre, the master took the vessel to the nearest port and the vessel arrived at Qingdao at 0809 on 3 June 2014. The bosun was sent to a hospital for medical treatment. He was certified dead on 4 June 2014 due to serious brain injury.
- 1.4 At the time of the accident, it was cloudy with westerly wind of force 4 on the Beaufort wind scale and the sea state was moderate. The visibility was about 2 nautical miles. The approximate position of the vessel was at latitude 33^o 35.9'N and longitude 123^o 16.4'E in the Yellow Sea.
- 1.5 The investigation into the accident revealed that the main contributory factors to the accident are as follows:
- a) While concentrating on his work and with his back facing the side of the platform, the bosun might not have been aware that he was already standing near the edge of the stepping platform and was prone to losing his footing and eventually fell;
 - b) The bosun's alertness of getting hurt from a fall off a low-rise platform might have been low; and
 - c) Probably due to losing of his footing, the bosun fell backwards from the platform with the back of his head hitting against the deck and sustained serious injury to the back of his head.

2 Description of the vessel

Name of the vessel:	<i>Jumeirah Beach</i>
Flag :	Hong Kong, China
Port of Registry :	Hong Kong
IMO No. :	9642045
Call Sign :	VRMY5
Ship Type :	Bulk Carrier
Keel Laid :	2013
Gross Tonnage :	20,969
Deadweight :	32,352
Length Overall :	179.90 m
Moulded Breadth :	28.40 m
Main Engine:	YMD-MAN B & W 6S46E-B8.3
Classification Society :	Lloyd's Register (LR)
Shipbuilder :	Jiangmen Nanyang Ship Engineering Co. Ltd, China
Registered Owner :	Jumeirah Beach Limited
Management Company :	Pacific Basin Shipping (HK) Limited.

3 Source of evidence

3.1 Information provided by the ship management company of *Jumeirah Beach*.

4 Outline of events

All times are local time UTC +8

- 4.1 On 1 June 2014, the Hong Kong registered bulk carrier M.V. *Jumeirah Beach* (the vessel) departed Taicang, Jiangsu in ballast condition and bound for Dalian.
- 4.2 On 2 June 2014, it was cloudy with westerly wind of force 4 on the Beaufort wind scale and the sea state was moderate. The visibility was about 2 nautical miles. The approximate position of the vessel was at latitude 33⁰ 35.9'N and longitude 123⁰ 16.4'E in the Yellow Sea. A total of six deck crewmembers including a bosun were assigned to carry out the deck cleansing work.
- 4.3 At about 1310, the bosun was standing on a stepping platform, of a height of about 0.85 meter above the main deck and located in between No.2 and No.3 cargo holds on the starboard side. The stepping platform was to cover the piping on deck and for the crew to walk across the piping safely. The bosun, who was assisted by an ordinary seaman (the OS) passing the water hose to him, was holding a water hose to cleanse the hatch coaming of No. 2 cargo hold.
- 4.4 The bosun was found to have fallen down from the platform onto the deck with the back of his head hitting against the deck (Figure 1). The OS working in the vicinity immediately came up to help the bosun when he saw him lying on the deck. At that moment, the bosun did not give any response. The OS removed the safety helmet of the bosun and tried to wake him up but was in vain. No sign of wound or blood was seen on the bosun's head, but he was unconscious.

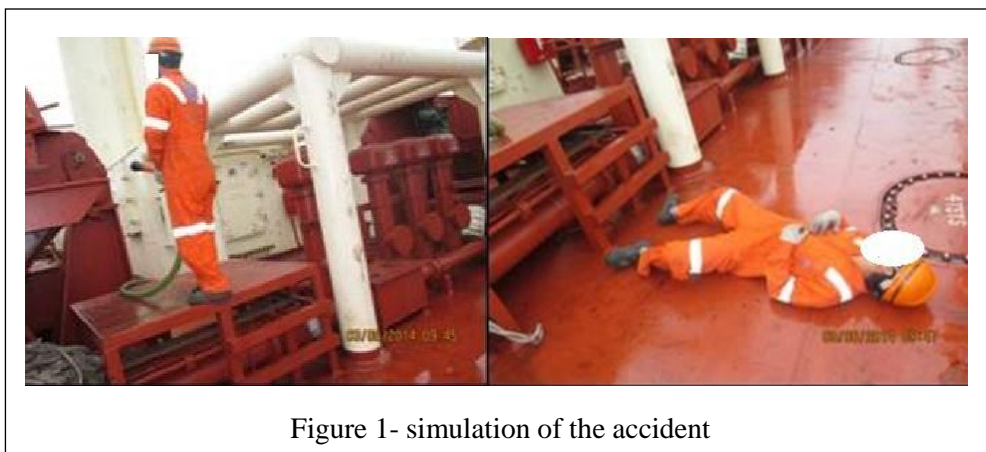


Figure 1- simulation of the accident

- 4.5 An Able-Bodied seaman (the AB) nearby came to the scene. He immediately reported the incident to the duty officer of the watch on the bridge through

walkie-talkie. A few minutes later, the bosun woke up and was able to speak in an unclear manner. He could stand up by himself despite not being very stable. The AB and the OS escorted him towards the crew accommodation at the aft of the vessel.

- 4.6 While on the way, the master, the chief officer and other crewmembers arrived. They decided to carry the bosun on a stretcher instead of letting him walk on his own. When they were conveying the bosun on the stretcher, the bosun vomited.
- 4.7 As the bosun's condition was becoming worse, the master informed the ship management company and consulted the International Radio Medical Centre (CIRM) to seek medical advice. The CIRM suggested that the bosun be sent to hospital ashore as soon as possible.
- 4.8 As rescue helicopter could not be deployed to assist the vessel due to poor visibility, the master ordered to change course of the vessel to proceed to the nearest port in Qingdao. At 0809 on 3 June 2014, the vessel arrived at Qingdao and the bosun was sent to a hospital for medical treatment.
- 4.9 Emergency medical operation was performed to him but the bosun was certified dead on 4 June 2014 due to serious brain injury.

5 Analysis

Qualification and experience of the bosun

- 5.1 The bosun started his seagoing career as an ordinary seaman in 1989 and was promoted to the rank of bosun in 1991. He joined the company in 2004. The bosun was considered to be an experienced crew. He had received proper trainings and held relevant certificates which were valid at the time of the accident.

Medical and health conditions of the bosun

- 5.2 The bosun had a valid medical certificate which certified him fit for duty at sea. There was no evidence to support that he had been influenced by alcohol or drugs at the time of the accident. His records of work and rest hours were considered normal. There was no evidence to show that he had suffered from fatigue at work.

Safety helmet worn by the bosun

- 5.3 The bosun wore a safety helmet with the manufacturing date of September 2013 stamped on it. The validity would normally be 2.5 years (i.e. needs to be replaced in March 2016). Inspection of his safety helmet after the accident revealed that the adjustable headband of the safety helmet was slightly damaged (Figure 2). Except the said damage, there was no damage to the shell and the harness (Figure 3). The damage to the helmet was most probably caused by the impact force when the bosun fell down from the platform onto the deck.

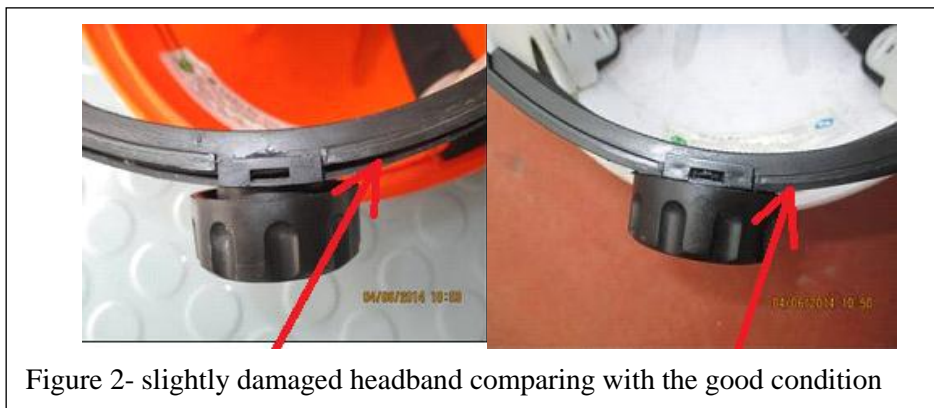


Figure 2- slightly damaged headband comparing with the good condition



Figure 3- no apparent damage was found on the shell and harness

The Certificate of Death

- 5.4 There was no apparent external wound or bleeding on the bosun's head. His vomiting was a symptom of intracranial hemorrhage. The certificate of death of the bosun indicated that the main cause of death was serious brain injury.

Most probable cause of the accident

- 5.5 There was no witness to the accident. Before the accident, the bosun was on the stepping platform, which was about 0.85 meter in height above the main deck, holding a water hose to wash the hatch coaming of No.2 cargo hold. While concentrating on his work and with his back facing the side of the platform, the bosun might not have been aware that he was already standing near the edge of the stepping platform and was prone to losing his footing and eventually fell.
- 5.6 The height of the stepping platform was only about 0.85 meter. The bosun's alertness of getting hurt from a fall off such a low-rise platform might have been low.
- 5.7 As witnessed by the crew, he was lying down with his back on the deck after the accident. It indicated that, probably due to losing of his footing, the bosun had fallen backwards from the platform with the back of his head hitting against the deck. He sustained serious injury to the back of his head, which was consistent with the findings in the certificate of death.
- 5.8 The adjustable headband of the safety helmet used by the bosun was found slightly damaged in the accident. It was probably caused by the impact force subsequent to the bosun falling backward down from the stepping platform. The design of a safety helmet was not meant to protect a person from injury at the back of his head due to such falling at height.

6 Conclusion

- 6.1 At about 1310 on 2 June 2014, a fatal accident happened on board the Hong Kong registered bulk carrier M.V. *Jumeirah Beach* while she was enroute to Dalian, Mainland China.
- 6.2 At the time of the accident, the bosun was standing on a stepping platform holding a water hose to cleanse the hatch coaming of No.2 cargo hold. He was found to have fallen down from the platform onto the deck with the back of his head hitting against the deck. The adjustable headband of the safety helmet was slightly damaged. The stepping platform, of height about 0.85 meter above the main deck and located in between No.2 and No.3 cargo holds on the starboard side, was fitted to cover the piping on deck and for the crew to walk across the piping safely.
- 6.3 The other crewmembers working nearby immediately came over to help the bosun. The condition of the bosun became worse and upon the advice of the International Radio Medical Centre, the master took the vessel to the nearest port and the vessel arrived at Qingdao at 0809 on 3 June 2014. The bosun was sent to a hospital for medical treatment. He was certified dead on 4 June 2014 due to serious brain injury.
- 6.4 At the time of the accident, it was cloudy with westerly wind of force 4 on the Beaufort wind scale and the sea state was moderate. The visibility was about 2 nautical miles. The approximate position of the vessel was at latitude 33^o 35.9'N and longitude 123^o 16.4'E in the Yellow Sea.
- 6.5 The investigation into the accident revealed that the main contributory factor to the accident are as follows:
- a) While concentrating on his work and with his back facing the side of the platform, the bosun might not have been aware that he was already standing near the edge of the stepping platform and was prone to losing his footing and eventually fell;
 - b) The bosun's alertness of getting hurt from a fall off a low rise platform might have been low; and
 - c) Probably due to losing of his footing, the bosun fell backwards from the platform with the back of his head hitting against the deck and sustained serious injury to the back of his head
- 6.6 The investigation into the accident revealed the following safety factors:
- a) The design of a safety helmet was not meant to protect a person from injury at the back of head due to such kind of falling at height.

7. Recommendations

- 7.1 A copy of the investigation report into the accident should be provided to the ship management company and the master of the vessel informing them of the findings of the investigation.
- 7.2 The ship management company should issue safety circular and/or instructions to the fleet of vessels under the management in order to:
- a) disseminate the lessons learnt from the accident; and
 - b) instruct all crew on board to always maintain their alertness even when they are working only on a low-rise stepping platform.
- 7.3 Hong Kong Merchant Shipping Information Note should be issued to promulgate the lessons learnt from this accident.

8. Submission

- 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 draft report in part or in entirety to that person or organization for their comment.
- 8.2 The draft report has been sent to the following parties for comment:
- a) The ship management company and the master of M.V. *Jumeirah Beach*.
- 8.3 No comment was received.