



Report of Investigation
into the fatal accident on board
the Hong Kong registered ship
“Great Morning”
on 11 March 2007



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 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 An accident happened when a cargo loading master was disembarking from the Hong Kong registered bulk carrier "*Great Morning*" to the cargo barge "*Ajkwa*" in Indonesia on 11 March 2007. The cargo loading master stepped on a rubber tyre fender and was about to climb up to the barge. Due to the effects of wind and swell, the two vessels rolled and swayed suddenly. The cargo loading master was crushed between the sides of the two vessels. He was seriously injured and died instantly.
- 1.2 The investigation revealed that no service boat had been provided for the cargo loading master to get back ashore from *the Vessel*. He had to take their way back via the cargo barge "*Ajkwa*" that was not provided with safe access for disembarkation.

2. Description of the Vessels

2.1 *M.V. Great Morning*

a) Particulars:

Name of the Vessel	:	<i>Great Morning</i>
Port of Registry	:	Hong Kong
IMO No.	:	9282780
Official No.	:	HK- 1361
Call Sign:	:	VRAF5
Classification Society	:	Nippon Kaiji Kyokai
Type of Ship	:	Bulk Carrier
Number of cargo holds	:	5
Year of Built	:	2002
Built At	:	Shin Kochi Jyuko Co., Ltd. Kochi , Japan
Ship Manager	:	Sandigan Ship Services, Incorporated
Length	:	176.60 metres
Breadth	:	26.00 metres
Depth	:	13.60 metres
Gross Tonnage	:	17,679
Net Tonnage	:	10,133
Engine Power	:	5,900 kW

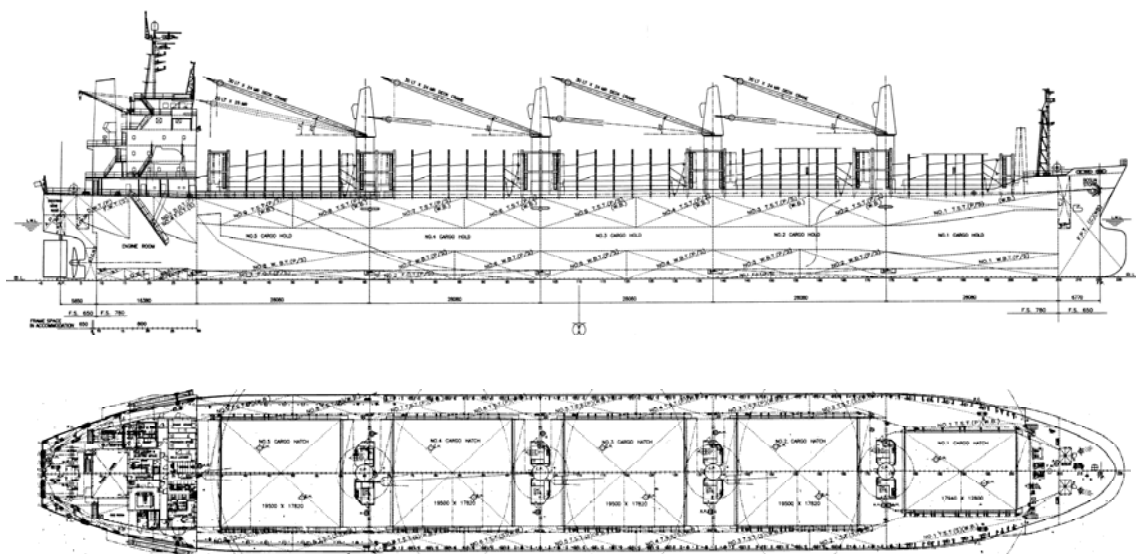


Fig. 1: The general arrangement of M.V. "*Great Morning*"

- b) "*Great Morning*" (hereinafter referred as *the Vessel*), is a five-hold bulk carrier built by Shin Kochi Jyuko Co., Ltd. Kochi , Japan in 2002. She is powered by a five-cylinder marine diesel engine, KOBE 5UEC52LA, capable of developing engine power of 5,900 kW. *The Vessel* was owned by Wealth Best Shipping Ltd and managed by Sandigan Ship Services, Incorporated, Phillippines, *the Vessel* was chartered by Hanjin Shipping Co. Ltd.

2.2 Non propelled cargo barge “Ajkwa”

a) Particulars:

Name of the Vessel	:	“Ajkwa”
Port of Registry	:	Jakarta
IMO No.	:	8636269
Classification Society	:	American Bureau of Shipping
Type of Ship	:	Self-unloading copper concentrate carrier
Number of cargo holds	:	6
Year of Built	:	1997
Built At	:	Keppel Singmarine Dockyard Pte Ltd - Singapore
Ship Manager	:	Kuala Pelabuhan
Length	:	118.00 metres
Breadth	:	30.00 metres
Depth	:	9.60 metres
Gross Tonnage	:	13,216
Net Tonnage	:	4,265
Engine Power	:	N.A.

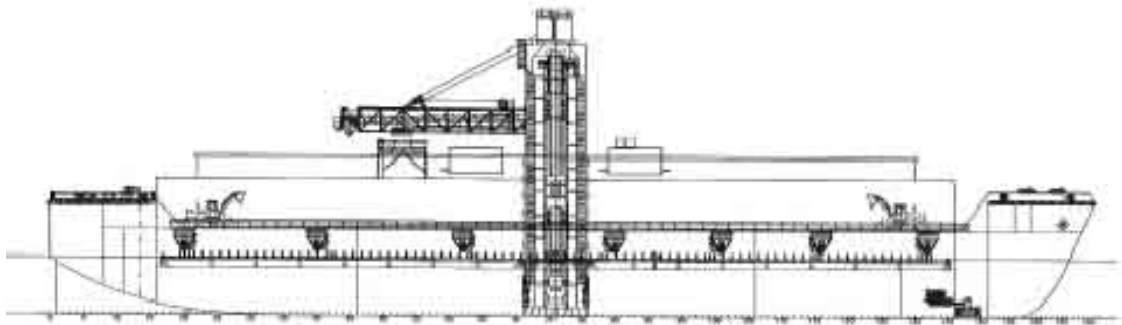


Fig. 2: Drawing of cargo barge “AJKWA”

- b) “Ajkwa” (hereafter referred as *the Barge*) is a six-hold non propelled cargo barge built by Keppel Singmarine Dockyard Pte Ltd - Singapore in 1998. *The Barge* was operated by PT Kuala Pelabuhan Indonesia providing marine transportation of bulk copper concentrate from the dock to vessels at anchorage area. *The Barge* is equipped with self-discharging conveyor equipment for discharging of the copper concentrate ore from its cargo hold to other vessels.

2.3 Tugboat “*Tembaga-3*”

a) Particulars:

Name of the Vessel	:	“ <i>Tembaga-3</i> ”
Port of Registry	:	Jakarta
IMO No.	:	9175547
Classification Society	:	American Bureau of Shipping
Call Sign:	:	HP-9335
Type of Ship	:	Pusher-tug
Year of Built	:	1998
Built At	:	Keppel Singmarine Dockyard Pte Ltd - Singapore
Ship Manager	:	Kuala Pelabuhan
Length	:	30.72 metres
Breadth	:	11.00 metres
Depth	:	6.00 metres
Gross Tonnage	:	603
Net Tonnage	:	181
Engine Power	:	4,058 kW

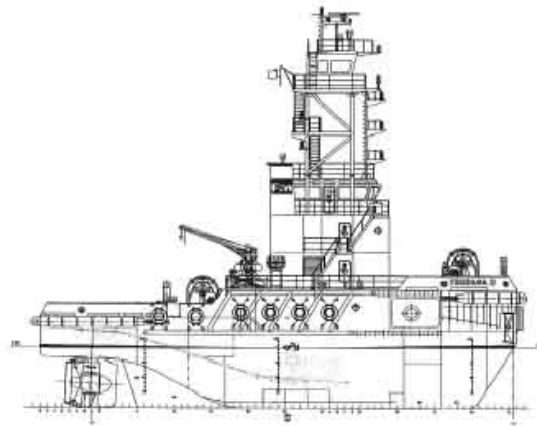


Fig. 3: Drawing of tugboat “*Tembaga-3*”

- b) “*Tembaga-3*” is a twin diesel driven pusher-tug equipped with hydraulic coupler at the bow for engaging to the stern of *the Barge*. The bow of “*Tembaga-3*” and the stern of *the Barge* were built with the same curvature for pushing operation.

3. Sources of Evidence

- a) The Master and Crewmembers of “*Great Morning*”
- b) The management company of “*Great Morning*”

4. Outline of Events

- 4.1 *The Vessel* had been loaded with 13,137 metric tons of copper concentrate in bulk from the Loading Wharf, Amamapare, Indonesia on 9 March 2007. Due to the limitation of the water depth of the Loading Wharf, *the Vessel* was shifted to Sea Buoy “A” anchorage area for further loading.
- 4.2 At 1748, *the Vessel* arrived at the anchorage area. Loading of cargo started at 1420 on 10 March. Copper concentrate was loaded from barges that moored alongside *the Vessel*.
- 4.3 At 0016 on 11 March, *the Barge* was moored to the starboard side of *the Vessel* for the continuation of cargo operation. Cargo work was completed at 1236. The cargo loading master (the CLM) was working with the Master of *the Vessel* for cargo documentation work. At 1446, the CLM disembarked *the Vessel* after he had completed his work. As no service boat had been arranged for disembarkation, the CLM had to get back to shore via *the Barge*.
- 4.4 An Able Seaman was assigned to accompany the CLM to the boat deck for disembarking from *the Vessel* to *the Barge*. Both sides of *the Barge* were fitted with rubber fenders, the CLM landed on a rubber tyre fender at the port aft of *the Barge* from the starboard boat deck of *the Vessel*. After he had taken back his handbag from the Able Seaman, he climbed up to the deck of *the Barge* (see fig. 4).

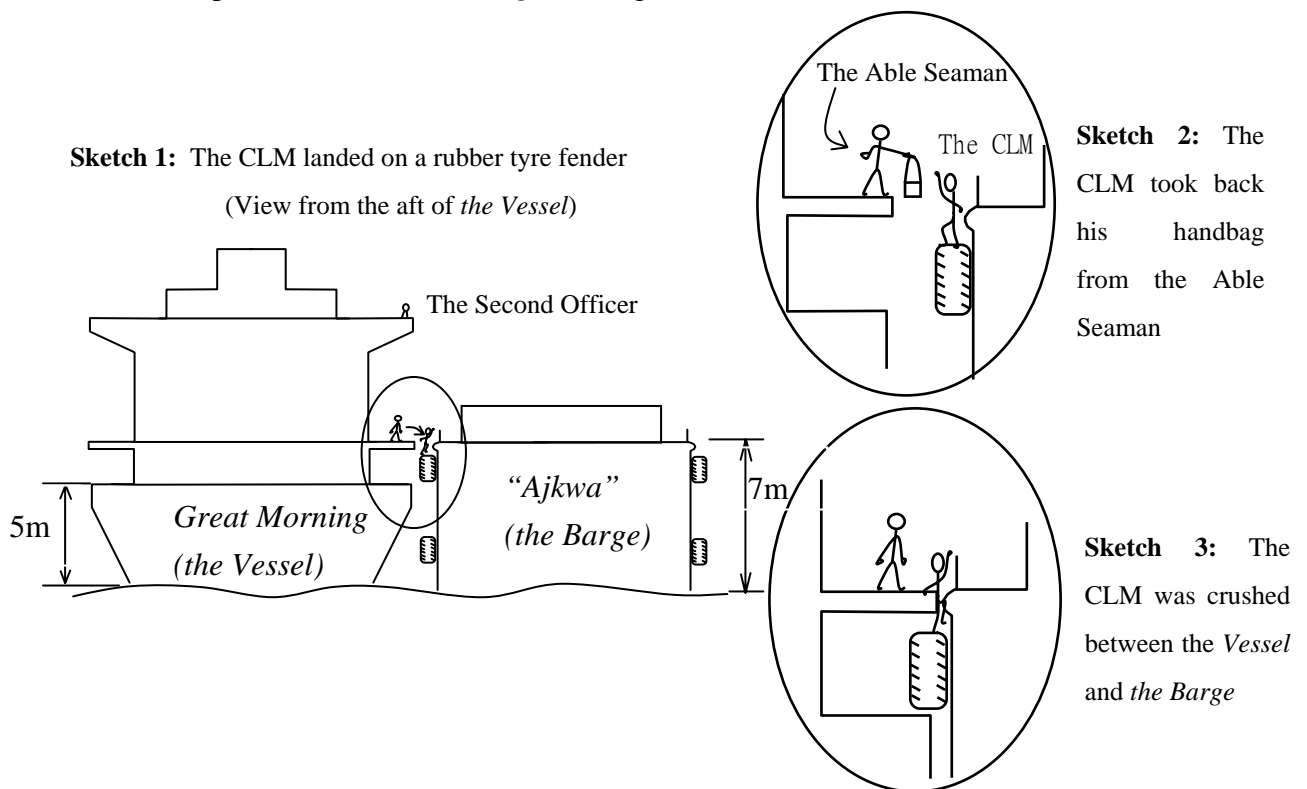


Fig. 4: The sequence of the happening of the accident

4.5 While the CLM was climbing up *the Barge*, *the Vessel* and *the Barge* swayed and touched with each other. As a result, the CLM was crushed between *the Vessel's* boat deck structure and *the Barge's* fender.



Fig 5: The scene of the accident

4.6 The CLM was certified dead by the Master of *the Vessel*. The Master immediately sought assistance from the local port authority. Soon the shore based emergency team arrived at the scene and sent the CLM to the Caritas Hospital at Timika for post mortem examination.

5. Analysis of Evidence

The location and mooring arrangement of the vessels

- 5.1 *The Barge* was moored to the starboard side of *the Vessel* by mooring ropes. The bow of the tugboat “*Tembaga-3*” was coupled to the stern of *the Barge* (see fig. 6). All the three vessels were at Latitude 4° 50.0’ S, Longitude 136° 40.8’ E heading to north direction. *The Barge* was fitted with a number of rubber tyres which served as fender to keep the vessel moored to its sides apart. There was a gap of about 2 metres between *the Vessel* and *the Barge*.

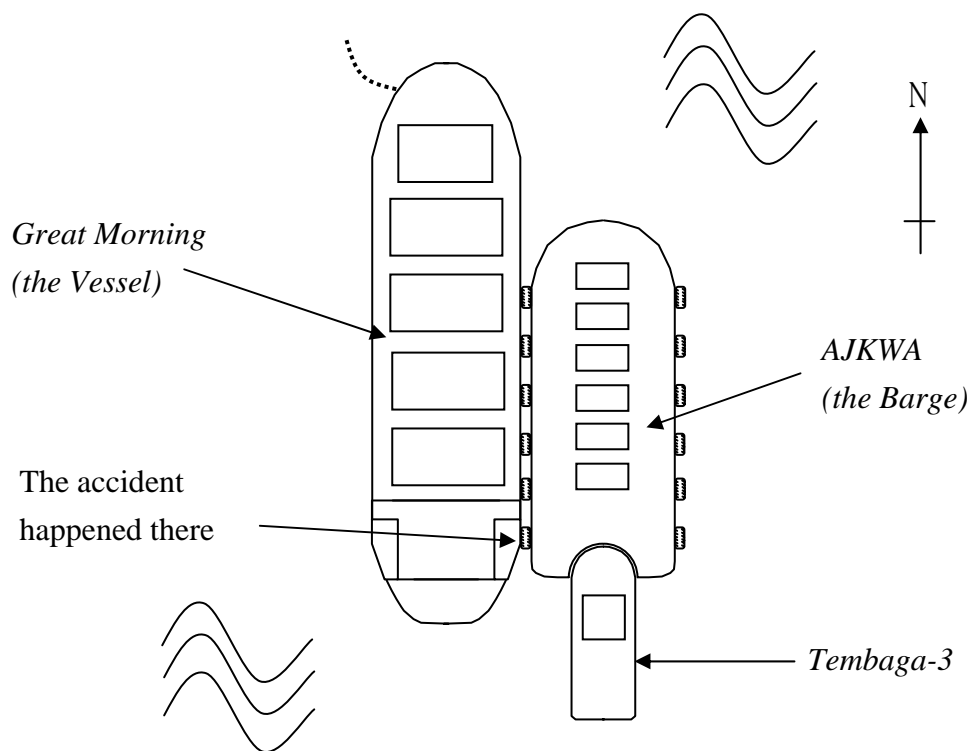


Fig. 6: The mooring arrangement of the vessels

The persons in charge of the cargo works

- 5.2 PT Kuala Pelabuhan Indonesia (hereafter referred as KPI) was the principal contractor for the cargo works, it provided tugboats, barges and service boats, workers and support services for the cargo operation of *the Vessel* and *the Barge*. PT Transbuana Pujijaya was a subcontractor of KPI, it provided stevedore services for the cargo operation. Both the KPI and PT Transbuana Pujijaya were in charge of the cargo works. They were the responsible parties for the health and safety of workers including the CLM on board vessels.

The CLM

- 5.3 The CLM was an Indonesian male aged 52. He had been working for the Transbuana Pujijaya for about 12 years. He was acting as a cargo agent and loading surveyor for the cargo operation.

Sea condition

- 5.4 The weather was overcast and drizzling. Moderate northwesterly breeze and westerly swell of height about 2 metres were prevailing in the area. The breeze and the swell would inevitably make some ship movements.

The draft of the Vessel and the Barge

- 5.5 The drafts of *the Vessel* and *the Barge* at the time of the accident are as follows:

	Draft Fwd (metre)	Draft Aft (metre)	Freeboard (metre)
<i>The Vessel</i>	8.10	8.60	5.00
<i>The Barge</i>	3.37	4.00	7.00

The Vessel was loaded with 23,000 metric tons of cargo while *the Barge* was in lightship condition with large freeboard. *The Barge's* freeboard was about 2 metres higher than *the Vessel's* freeboard. Furthermore, a relative large gap existed between the two vessels causing it unsafe to transfer people directly between vessels.

The boat deck of the Vessel

- 5.6 The boat deck of *the Vessel* is an extension at the side of *the Vessel's* for operation of the lifeboats. The boat deck would make contact with the fender of *the Barge* resulting from the movement of the two vessels. The boat deck was not a proper means of access for boarding *the Barge*.

Cause of the accident

- 5.7 The cause of the accident is considered to be a lack of safe means of access between the two vessels. In order to board *the Barge* from *the Vessel*, the CLM had to land on a rubber tyre fender between the two vessels. As the vessels were subject to sea movement, the structure of *the Vessel* crushed the CLM against *the Barge* while he was climbing up *the Barge* from the rubber tyre fender. Contributing to this accident was the failure to provide service boat for the CLM to get back ashore or transfer between the vessels, which may

cause the CLM to take a short cut and risk himself with the dangerous climbing.

Safety of personnel disembarking

- 5.8 The Master of *the Vessel* should ensure that safe means of access had been provided for the CLM to disembark safely. Under all circumstances, disembarking of personnel with dangerous climbing via the boat deck is considered not a safe means of access.

6. Conclusions

6.1 An accident happened when the CLM was disembarking from *the Vessel* to *the Barge* in Indonesia on 11 March 2007. The CLM stepped on a rubber tyre fender and was about to climb up to *the Barge*. Due to the effects of the wind and swell, the two vessels rolled and swayed suddenly. The CLM was crushed between the sides of the two vessels. He was seriously injured and died instantly.

6.2 The probable cause of the accident:

- No safe means of access for the CLM to transfer from *the Vessel* to *the Barge*.

6.3 The investigation revealed the following contributory factors leading to the accident:

- No service boat had been provided for the CLM to get back ashore from *the Vessel*. He had to take their way back via *the Barge* that could not provide with safe access for disembarkation; and
- Both the assisting Able Seaman and the CLM were not aware of the dangers of the movement of vessel due to prevailing sea condition.

7. Recommendations

- 7.1 A copy of this report should be sent to the management company and the Master, advising them the findings of the accident. They should ensure the crewmembers to observe the following safety guidelines:
- Safe means of access should be provided personnel to get back ashore; and
 - Personnel should be aware of the dangers of any unexpected ship movements while transferring people between vessels.
- 7.2 A Merchant Shipping Information Note should be issued to promulgate the lessons learnt from this fatal accident, drawing the industry's attention on the embarkation and disembarkation between vessels.

8. Submissions

- 8.1 In the event that the conduct of any person or organization is criticized in a casualty investigation report, it is the policy of the Hong Kong Marine Department that a copy of the draft report is given to that person or organization so that they have the opportunity to rebut the criticism or offer evidence not previously available to the investigating officer.
- 8.2 The final draft report was sent to the following parties:
 - a. Sandigan Ship Services, Incorporated
 - b. The Master of *the Vessel*
- 8.3 No submission was received from them.