



Report of Investigation into the
Man-Overboard Accident
onboard a Chinese registered
river- trade container vessel
Shi Tai 818 on 14 May 2009



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 At about 0145 on 14 May 2009, an accident happened on board a Chinese registered river-trade container vessel *Shi Tai 818* at Kwai Chung Container Terminals in Hong Kong.
- 1.2 At the time of the accident, the Master was manoeuvring the vessel during mooring operation. A Mechanic was hit by a parted mooring rope at the stern and fell overboard. He was rescued and sent to hospital where he was certified dead.
- 1.3 The investigation revealed the main contributory factor to the accident was the Master did not check and confirm all mooring ropes, in particular the stern mooring rope, were unfastened before departure.

2. Description of the Vessel

2.1 Particulars of *Shi Tai 818*

Port of Registry:	Guangzhou
Registration No. :	1996W5100179
Type of Vessel :	Container
Year of Built :	1996
Built At :	Panyu Lingshan Shipyard, China
Owner :	Guangzhou City Shitai Shipping Co. Ltd.
Length :	49.40 metres
Breadth :	9.80 metres
Depth:	3.50 metres
Gross Tonnage:	568.00
Net Tonnage:	318.00
Engine Power:	624.8kW
No. of Crew:	5



Fig. 1: *Shi Tai 818*

3. Sources of Evidence

- a) The Chief Engineer of *Shi Tai 818*
- b) Sailor of *Shi Tai 818*
- c) The Autopsy Report

4. Outline of Events

- 4.1 In the afternoon on 13 May 2009, a Chinese registered river-trade container vessel *Shi Tai 818* (the *Vessel*) arrived in Hong Kong and discharged the containers at Terminal 17 and at Terminal 5 in the Kwai Chung Container Terminals. After having finished discharging cargo at about 2300, the *Vessel* anchored in the area waiting for cargo instructions.
- 4.2 At about 0100 on 14 May 2009, the Master was instructed by the Company to move the vessel to crane disposition 72 at Terminal 17. After weighing the anchor, the Master manoeuvred the *Vessel* to berth alongside a Chinese registered river-trade container vessel *Yue Hai 891* which had been docked at crane disposition 72.
- 4.3 During the mooring operation, the Master was in the bridge maneuvering the *Vessel*. The Chief Engineer and a sailor (Sailor-A) stationed at the bow and the mechanic (Mechanic-A) stationed at the stern responsible for fastening the mooring ropes.
- 4.4 At about 0145, while mooring operation was in progress, the Master of the *Vessel* received a new instruction from the Terminal to berth at crane disposition 84 instead.
- 4.5 The Master ordered the Chief Engineer and Sailor-A at the bow to abort fastening of the mooring ropes. At the same time, Sailor-A shouted to Mechanic-A to untie the mooring rope at stern. Almost at the same time, the *Vessel* was moving away from *Yue Hai 891*.
- 4.6 After having unfastened the mooring rope at the bow, the Chief Engineer walked towards the stern. On his way at about mid-ship position of the *Vessel*, he saw Mechanic-A was still trying to unfasten the mooring rope but a moment later suddenly fell overboard.
- 4.7 The Chief Engineer jumped into the water with a lifebuoy with him trying to rescue Mechanic-A. The Master learnt of the accident and immediately turned around the *Vessel* to rescue Mechanic-A.
- 4.8 The Chief Engineer managed to hold Mechanic-A in the water and they were picked up onboard a nearby vessel *Hai Long 228* by its crew.
- 4.9 Mechanic-A was sent to Prince Margaret Hospital for treatment, but he was certified dead later at 0345.

5. Analysis of Evidence

Working experience & training

- 5.1 The Master held a Grade 3 Master Certificate of Competency issued by Xiantao Shi Local Maritime Safety Administration, Hubei, The People Republic of China. He was permitted to work as Master on vessels with restricted trading areas in waters between Humen, Shekou in China and Hong Kong.
- 5.2 Mechanic-A held a Certificate of Professional Training for Seafarers issued by Guangzhou Maritime Safety Administration and a Watch-keeping Certificate as Mechanic issued by Guangdong Maritime Safety Administration, The People Republic of China. He was qualified to work as a Mechanic onboard the *Vessel*.

Working hours

- 5.3 The *Vessel* arrived at Hong Kong in the afternoon on 13 May 2009 and started unloading containers in the evening. The *Vessel* finished unloading containers at about 2300 on the same day and then anchored in the area waiting for cargo instructions. At about 0100 on 14 May 2009, the Master of the *Vessel* was instructed to berth at crane disposition 72 at Terminal 17, Kwai Chung Container Terminals. In view of the ship's schedule, Mechanic-A should have taken some rest and not suffered from fatigue.

The environment

- 5.4 At the time of the accident, the *Vessel* was in the basin of Kwai Chung Container Terminals, which is a well-sheltered area. The effect of winds and waves in the area should not be a contributory factor to the accident.

The Autopsy Report

- 5.5 The Autopsy Report indicated that the direct cause of death of Mechanic-A was due to drowning. There were reddish bruise marks on the front of middle right thigh, front of middle left thigh and inner front of lower left thigh. In addition, a band of abrasion mark, about 39 cm in length and 12cm in width, encircling lower left thigh was also found. The bruises and abrasion probably were a result of hitting by the stern mooring rope.

The Stern Mooring Rope

- 5.6 The mooring rope used at stern was a synthetic fibre rope of diameter about 32cm and appropriately 25 metres in length. After the accident, the mooring rope was found parted at about half-length. The rope was contaminated with oil but there were no signs of severe wear and abrasion on the rope (see Fig. 2).



Fig. 2 Parted Stern Mooring Ropes

Communication

- 5.7 The Master was controlling the vessel inside the bridge, which is located in the second-deck of the forward superstructure (see Fig. 1). When he was instructed by the Terminal to switch the mooring berth from crane disposition 72 to 84, the Master immediately informed the Chief Engineer and Sailor-A by shouting, who were stationed in the bow just in front of the bridge. The Chief Engineer and Sailor-A could hear the Master's instructions since they were close to the bridge. However, as there was no communication equipment provided for the Master and the crew, Mechanic-A at the stern of the *Vessel* was not aware of the instructions from the Master.

- 5.8 When Sailor-A shouted to Mechanic-A at a distance of about 50 metres away, it was probable that Mechanic-A had not heard the message clearly so he did not unfasten the mooring rope immediately.
- 5.9 The Master saw from his position that the Chief Engineer and Sailor-A had already unfastened the bow mooring ropes and heard Sailor-A shouted to Mechanic-A to unfasten the stern mooring rope, it was probably that the Master assumed Mechanic-A had got the message to unfasten the stern mooring rope.
- 5.10 It was apparent that the Master and the crew were used to the ways of transmitting instructions between them during mooring operations by shouting without using proper equipment such as loudhailer. Even worse, without proper communication equipment, the Master assumed the mooring rope at stern had been unfastened without problem as it was before under usual circumstances, thus he did not bother to check and confirm visually all mooring ropes were unfastened before departure.

Parting of the mooring rope at stern and Mechanic-A fell overboard

- 5.11 The stern mooring rope was immediately under tension while the *Vessel* started to depart with the rope unfastened. Although Mechanic-A might not have heard the instructions from Sailor-A to unfasten the mooring rope, he would have noticed the *Vessel* was departing. It was probable that, at that moment, Mechanic-A was still attempting to ease the tension of the mooring rope so as to unfasten them. Unfortunately, the rope yielded and parted suddenly due to over-tension. The ends of the parted rope snapped and hit Mechanic-A with tremendous force that threw him overboard. He might have become unconscious while falling into the water.

6 Conclusions

- 6.1 At about 0145 on 14 May 2009, an accident happened on board a Chinese registered river-trade container ship *ShiTai 818* at Kwai Chung Container Terminals in Hong Kong.
- 6.2 At the time of the accident, the Master was manoeuvring the vessel during mooring operation. A Mechanic on board the vessel was hit and fell overboard by a mooring rope that parted under tension at the stern. He was rescued and sent to hospital where he was certified dead.
- 6.3 The investigation revealed that the main contributory factor to the accident was the Master of the vessel did not check and confirm all mooring ropes, particularly the stern mooring rope, were unfastened before departure.
- 6.4 The other safety factor contributory to the accident was the prevalent mal-practice onboard during mooring operations without effective communication arrangements between crew members.

7. Recommendations

- 7.1 A copy of the report should be sent to owners and the Master of *Shi Tai 818* advising them the findings of the investigation into this accident.
- 7.2 The owners are required to:-
- issue instructions to ensure safe and prudent mooring operation onboard their vessels by ship Masters, particularly all ropes must be unfastened before manoeuvring the vessel for departure; and
 - review the onboard communication arrangement between crew members during mooring operations.
- 7.2 A Marine Department Notice 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 relevant parts of the draft report to that person or organization for their comments.
- 8.2 The draft report was sent to owner and the Master of the *Vessel* for comments. There was no comment received from them at the end of the consultation.

