Report of investigation into the fatal accident on board Hong Kong registered container ship *"CSCL SAN JOSE"* at the port of Jakarta, Indonesia on 19 July 2016

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

13 September 2018

Purpose of Investigation

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.

It is 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.

Table of Contents **Page**

1. Summary

1.1 On 19 July 2016 at about 1155 hours, a fatal accident happened on board the Hong Kong registered container ship *CSCL SAN JOSE* (*the vessel*) during loading containers at berth No.1 of PT Jakarta International Container Terminal, Indonesia.

1.2 When a 40-foot empty container (*the container*) was being loaded onto the loading position by a quay crane, an operator assistant (the Operator Assistant A) without wearing reflective vest and safety helmet was still at the loading position trying to release a twist lock at a deck socket without notifying the quay crane operator (the Crane Operator A).

1.3 As a result, the Operator Assistant A was trapped under *the container* and was found in a curling position with his head bent forward touching a deck socket. He was taken by an ambulance but declared dead on the way to the hospital.

1.4 The investigation revealed that a basket of factors contributed to the accident as:

(i) the Operator Assistant A did not wear appropriate personal safety gear such as safety helmet and reflective vest while working on board *the vessel*;

(ii) the Operator Assistant A initiated himself to release a twist lock in the loading position for the incoming *container* without informing the Crane Operator A. The communication between the Operator Assistant A and the Crane Operator A was broken down; and

(iii) the Crane Operator A had a restricted view for container handling on board *the vessel* but he was not provided with a signaler to assist him in his work.

2. Description of *the vessel*

2.1 *CSCL SAN JOSE* (Figure 1)

2.1.1 Particulars

Name of the ship	:	CSCL SAN JOSE
Flag	:	Hong Kong, China
Port of registry	:	Hong Kong
IMO No.	:	9402615
Ship type	:	Container Ship
Year built, shipyard	:	2008, Jiangsu Yangzijiang Shipbuilding Co., Ltd.
Gross tonnage	:	26,404
Net tonnage	:	13,007
Length (overall)	:	198.03 metres
Breadth	:	29.79 metres
Engine output, type	:	21,660 kW, B&W 6K80MC-C
Classification society	:	Lloyd's Register (LR)
Registered owner	:	Seaspan Corporation
Management company	:	Seaspan Ship Management Ltd.

2.1.2 *CSCL SAN JOSE* is a five-hold container ship with a capacity of 2546 TEU[1] (1562 on deck and 984 in hold) and has three deck cranes at the starboard side. She was registered in Hong Kong on 3 December 2008 and manned by a total of 21 seafarers.

Figure 1 *CSCL SAN JOSE*

[1] TEU denotes twenty-foot equivalent unit for describing a ship's cargo carrying capacity of standard intermodal containers.

3. Sources of evidence

3.1 The statements of crew of *CSCL SAN JOSE*.

3.2 The information provided by the management company.

3.3 The container terminal’s accident investigation report.

4. Outline of events

(All times are local time UTC + 7 hours.)

4.1 On 19 July 2016 at about 1130 hours, *the vessel* was loading containers by quay side cranes at the berth No.1 of PT Jakarta International Container Terminal, Indonesia.

4.2 At 1130 hours, there was a change of work shift for operator assistants for quay container crane No. 12 (Quay Crane). After the work shift, the incoming Operator Assistant A commenced work on bay 26 of *the vessel*. One of the duties of the Operator Assistant A was to assist the Crane Operator A in positioning containers while stevedores were responsible for handling container lashing gears and twist locks at deck sockets.

4.3 At about 1145 hours, *the container* was going to be loaded at the loading position by the Quay Crane. When one of the stevedores (*the stevedore*) was going to lash *the container,* he noticed that it had not been positioned properly on the loading location. Subsequently, *the stevedore* found a person underneath *the container*. *The stevedore* shouted at and signaled the Crane Operator A of the Quay Crane to lift *the container*. When *the container* was lifted, *the stevedore* found the person underneath it was the Operator Assistant A.

4.4 At about 1154 hours, the third officer noticed shouting of *the stevedore*. At about 1155 hours, the third officer went to the site and saw that the body of the Operator Assistant A was in a curling position with the head down to his knee touching a deck socket without any movement (Figure 2).

4.5 The third officer immediately informed the chief officer and the master of the accident via his walkie-talkie. All cargo operations for *the vessel* were also immediately stopped by the container terminal. The master notified the accident to the port authorities. About 10 minutes later, a team of paramedic from the berth boarded *the vessel* to provide first aid to the Operator Assistant A.

4.6 At about 1229 hours, the paramedic brought the Operator Assistant A from *the vessel* down to an ambulance on the quay and he was sent to the hospital. He was declared dead on the way to the hospital.

4.7 From 1302 hours to 1408 hours, site inspections were carried out on board *the vessel* by the coastguards and the police investigators. They left *the vessel* at about 1458 hours.

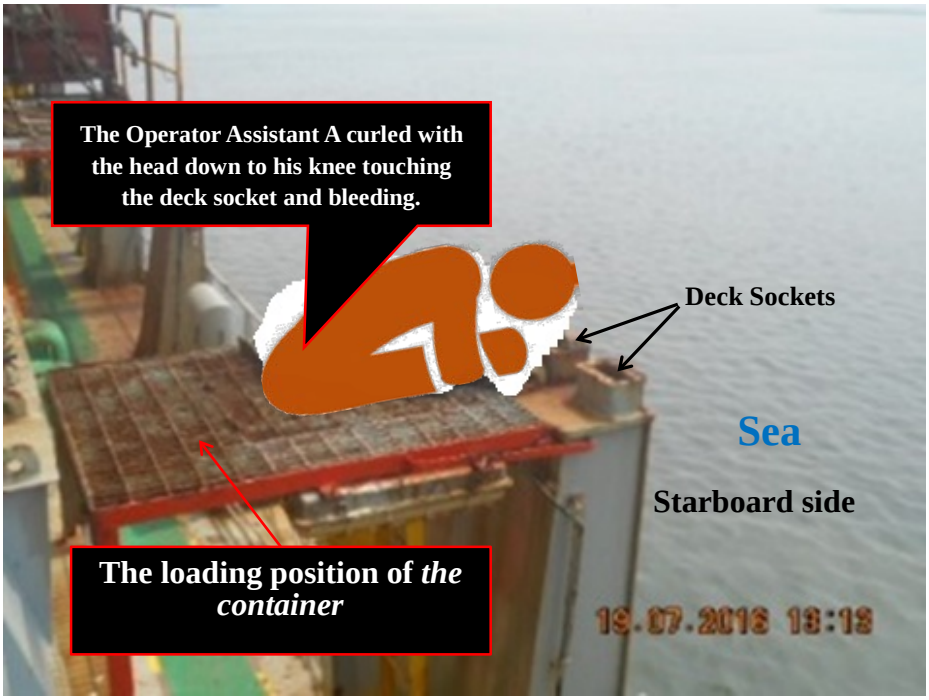

Figure 2 The scene of the accident

5. Analysis

Certification, training and experience

5.1 The statutory trading certificates of *the vessel* were valid and in order. *The vessel* was manned by 21 crew including the master. All crew held appropriate valid certificates respectively to their positions on board.

5.2 The Operator Assistant A was employed by a local stevedore contractor and he had about 2 years working experience as operator assistant on board ships. His relevant training in shipboard container handling and physical condition at work were not known due to unavailable information from the container terminal.

5.3 The Crane Operator A worked for the container terminal for about 14 years to operate quay cranes. His relevant training certification and physical condition at work were not known due to unavailable information from the container terminal. According to the report of the container terminal, the Crane Operator A mentioned that he did not know the Operator Assistant A's presence below *the container*. When he was loading *the container* to the position, he had not been informed through radio communication that one twist lock was still at the loading position and the Operator Assistant A would release it.

Personal protective equipment and radio communication

5.4 Based on the photos taken at the accident scene, the Operator Assistant A did not wear reflective vest and safety helmet. It is common safety practice that persons handling container on board ship should wear suitable safety gear to protect their bodies.

5.5 Both the Operator Assistant A and the Crane Operator A were provided with radio communication devices which were switched on and functioned properly. Although radio communication devices were in function, the communication between the Operator Assistant A and the Crane Operator A was obviously not maintained properly in the sense that the Operator Assistant A did not inform the Crane Operator A that he would go to the loading position to release twist lock.

Weather condition

5.6 The weather condition was fine and clear. There was light air and the sea was calm with a visibility of 12 nautical miles. The effect of wind and wave motion at the material time should not be the contributory factors causing the accident.

Cause of the accident

5.7 As stated by the container terminal's accident investigation report, the stevedores from contractors were responsible for releasing twist locks rather than operator assistants. It was probably that the Operator Assistant A without wearing safety helmet and reflective vest was trying to release a twist lock at the loading position through his own initiative but without informing the Crane Operator A.

5.8 When the Crane Operator A was handling *the container*, he had a restricted view of the loading position. In accordance with the "Code of practice on safety and health in ports" published by the International Labour Organization (ILO), crane operator with restricted view operation environment should be provided with a signaler to assist in cargo operation. However, he was not provided with a signaler to assist him in his work. Further to this, he was also not aware of the presence of the Operator Assistant A at the loading position due to communication breakdown. As a result, the Operator Assistant A was trapped underneath *the container* and died.

6. Conclusions

6.1 On 19 July 2016 at about 1155 hours, a fatal accident happened on board *the vessel* during loading containers at the berth No.1 of PT Jakarta International Terminal, Indonesia. The Operator Assistant A employed by quay stevedore contractor was crushed to death by *the container* lowering to the loading position on deck.

6.2 The investigation revealed that a basket of factors contributed to the accident as:

(i) the Operator Assistant A did not wear appropriate personal safety gear such as safety helmet and reflective vest while working on board *the vessel*;

(ii) the Operator Assistant A initiated himself to release a twist lock in the loading position for the incoming *container* without informing the Crane Operator A. The communication between the Operator Assistant A and the Crane Operator A was broken down; and

(iii) the Crane Operator A had a restricted view for container handling on board *the vessel* but he was not provided with a signaler to assist him in his work.

7. Recommendations

7.1 A copy of the report will be sent to the master, the management company of *the vessel* and the NTSC[2] marine subcommittee (Indonesia), advising them the findings of the investigation. In order to avoid recurrence, a copy of this report will also be sent to the terminal operator for their consideration of the following safety precautions:

(i) persons engaged in shipboard container handling should wear appropriate personal protective equipment including but not limited to reflective vest and safety helmet;

(ii) persons engaged in shipboard container handling should keep a safe distance from the travelling paths of containers in suspension at all times during working on board;

(iii) unless the crane operators have an unrestricted view of cargo operation, signalers should be provided to assist crane operators' work; and

(iv) the communication between crane operators and operator assistants should be maintained properly and effectively at all time during cargo operation.

[2] The National Transportation Safety Committee

8. Submission

8.1 The draft investigation reports, in its entirety, have been sent to the master, the management company of *CSCL SAN JOSE*, the container terminal and the Chairman of the NTSC marine subcommittee (Indonesia) for their comments.

8.2 At the end of the consultation period, no comment was received from the parties mentioned in para. 8.1.