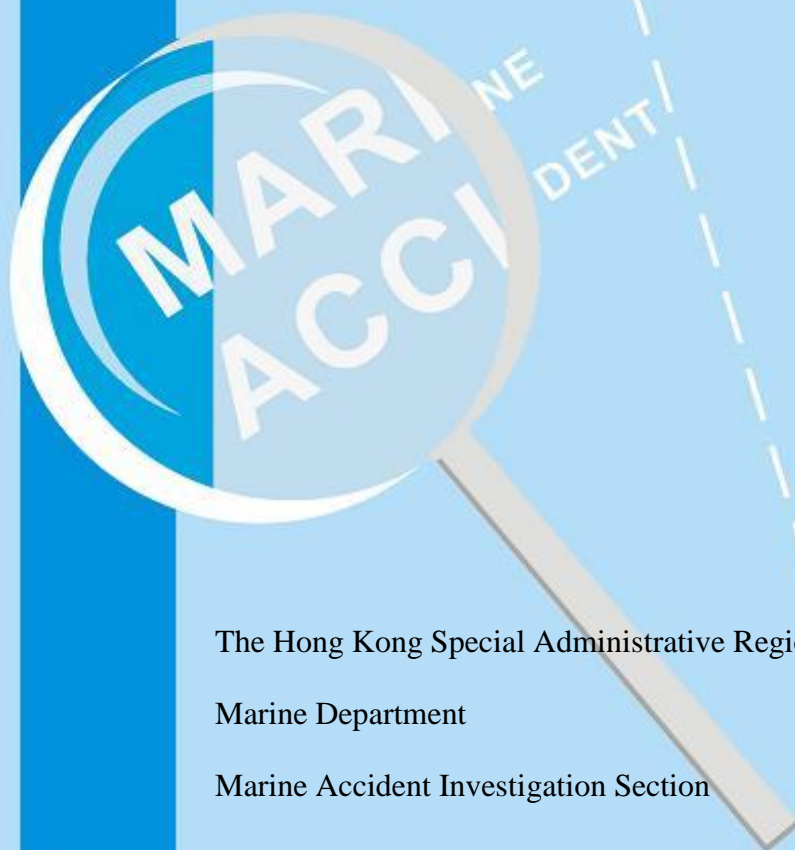




Report of investigation  
into the collision between  
the Hong Kong registered container ship  
***“CSCL Manzanillo”*** and  
the Chinese fishing vessel  
***“Lu Wei Yu 60012”***  
in Qinhuangdao, China  
on 28 December 2017



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

3 November 2020

## **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 enhancing the safety of life at sea and avoiding similar incidents 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.

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## Summary

At about 2059 hours on 28 December 2017, the Hong Kong registered container ship “CSCL Manzanillo” (*the vessel*) and the Chinese fishing vessel “Lu Wei Yu 60012” (“60012”) collided at position 39°47.32’N/119°41.83’E when *the vessel* was approaching the pilot station of Qinhuangdao, China. “60012” sustained hull damage and listed due to water ingress. One fisherman was missing and five fishermen suffered minor injuries.

The investigation revealed that “60012” failed to maintain a proper look-out in compliance with Rule 5 of the International Regulations for Preventing Collisions at Sea 1972 (COLREGS) (Look-out) and to take any collision avoidance actions in accordance with Rule 8 of COLREGS (Action to avoid collision). Furthermore, *the vessel* failed to (i) proceed at a safe speed in the harbour approaching road as per the requirements of Rule 6 of COLREGS (Safe Speed); and (ii) take positive actions in ample time with due regard to the observance of good seamanship to avoid collision in accordance with Rule 8 of COLREGS (Action to avoid collision).

The investigation also identified that “60012” failed to comply with the minimum manning requirements. Moreover, “60012” failed to exhibit “vessel not under command” lights immediately or to give out sound signals to warn the vessels in the vicinity in accordance with Rule 27 of COLREGS (Vessels not under command or restricted in their ability to manoeuvre).

## 1. Description of the vessels

### 1.1. *The vessel* (Figure 1)

Ship name	: <i>CSCL Manzanillo</i>
Flag	: Hong Kong, China
Port of registry	: Hong Kong
IMO number	: 9402639
Type	: Container Ship
Year built, shipyard	: 2009, Jiangsu Yangzijiang Shipbuilding Co., Ltd.
Gross tonnage	: 26,404
Net tonnage	: 12,996
Summer deadweight	: 34,194 metric tonnes (mt)
Length overall	: 208.90 metres
Breadth	: 29.80 metres
Engine power, type	: 21,660 kW, CMD-MAN B&W 6K80MC-C
Classification society	: Lloyd's Register (LR)
Registered owner	: Seaspan Corporation
Ship management company	: Seaspan Ship Management Ltd.



Figure 1 *The vessel*

1.2. “60012” (Figure 2)

Ship name	:	<i>Lu Wei Yu 60012</i>
Flag	:	China
Port of registry	:	Yangkou
Type	:	Domestic fishing vessel
Material of hull	:	Steel
Gross tonnage	:	94
Length overall	:	27.49 metres
Breadth	:	5.60 metres
Depth	:	2.50 metres
Registered owner	:	Yuan Zhaoguang
Year built, shipyard	:	2017, Shandong Wendeng Haitong Shipyard Co., Ltd
Main engine, power	:	1 x YC6TK240C, 175kW



Figure 2 “60012” (after collision)

## **2. Sources of evidence**

- 2.1 The ship management company of *the vessel*.
- 2.2 The Maritime Safety Administration of the People's Republic of China (China MSA).

### 3. Outline of events

(All times were local times UTC + 8 hours.)

#### **Account of *the vessel***

- 3.1 At 1218 hours on 28 December 2017, *the vessel* dropped her port anchor at the West Anchorage of Qinhuangdao, China.
- 3.2 At 2030 hours, *the vessel* picked up anchor and proceeded to meet the pilot at the pilot boarding ground at 2130 hours as scheduled. The pilot boarding ground was at Buoy No. 110 of the entrance channel at a distance of 9.4 nautical miles (nms) from the anchoring position. *The vessel's* bridge team consisted of the master, third officer, fourth officer and the watchkeeping rating. The north-easterly wind was of Beaufort force two to three. The sea was slight and the visibility was about seven nms.
- 3.3 At 2037 hours, *the vessel* was proceeding with a speed of 9.5 knots, heading 075° and at position 39°44.58'N/119°37.30'E. "60012" was on the starboard bow of *the vessel* at a distance of about 3.9 nms.
- 3.4 At about 2041 hours, *the vessel* was at position 39°44.80'N/119°38.25'E proceeding with a speed of 12.4 knots, heading 075°. "60012" crossed the head line of *the vessel* at a distance of 3.3 nms.
- 3.5 At 2045 hours, *the vessel* was proceeding with a speed of 12.9 knots, heading 075° and at position 39°45.05'N/119°39.30'E. "60012" was first observed on the port bow at a distance of 2.6 nms by visual and radar observation.
- 3.6 At 2048 hours, *the vessel* was at position 39°45.25'N/119°40.15'E with a speed of 14.9 knots and heading about 075°. The master commenced altering the course to port side of "60012" in order to proceed to the pilot station. "60012" was 2.3 nms away from the port bow of *the vessel*.



- 3.7 At 2050 hours, *the vessel* was at position 39°45.41'N/119°40.71'E with a speed of 13.6 knots and heading about 038°. “60012” was 2.2 nms ahead of the vessel.
- 3.8 At 2052 hours, *the vessel* noticed that “60012” was two nms on the starboard bow and made a sudden and drastic turning to port side towards *the vessel*, and continuously turned back to *the vessel* after crossing the head of *the vessel* at about 2055 hours. The fourth officer of *the vessel* immediately gave warning signals by daylight signaling lamp and laser light, followed by sound blast via *the vessel*’s whistle. However, “60012” continued turning to the port side approaching *the vessel* thus creating an imminent risk of collision. The fourth officer then went to the port side bridge wing for closer monitoring of the situation and reported to the master that “60012” was proceeding directly to *the vessel*’s bow.
- 3.9 At 2056 hours, *the vessel* was proceeding at a speed of 14.4 knots with heading 034°. “60012” was 0.9 nm away with a relative bearing 351°. The master ordered to turn the rudder to hard starboard. He then ordered to put the engine from full ahead to stop, dead slow astern and full astern within a few minutes.
- 3.10 According to the record from the Vessel Traffic Service Centre (VTSC) of Qinhuangdao, the radar echoes for *the vessel* and “60012” merged at position 39°47.32'N/119°41.83'E at 2059 hours when the vessel was heading 070.9° with a speed of 9.3 knots.
- 3.11 Upon hearing the shouting for help from the fishermen of “60012” which was listed and was floating in the water on *the vessel*’s starboard bow, *the vessel* rendered a search and rescue (SAR) operation immediately. The master also reported the collision accident to the port administration and requested for assistance.

### Account of “60012”

- 3.12 At about 1700 hours on 28 December 2017, “60012” was at position 39°13.00’N /119°40.16’E proceeding to Qinhuangdao Gouquzhai fishing port with a speed of 8.16 knots and a course of 000° after completion of fishing operation.
- 3.13 At 1832 hours, “60012” was at position 39°26.03’N/119°41.43’E with a speed of 7.78 knots and a course of 356°. The master took over the watchkeeping duties from the chief officer and was the sole look-out on the bridge.
- 3.14 At 2040 hours, “60012” was at position 39°45.52’N/119°42.34’E with a speed of 8.94 knots and a course of 310°. The master stated that “60012” lost electric power and was out of control at 2040 hours. In accordance with the movement records found in the investigation, the time of electric power failure was deduced to be at about 2050 hours. Due to electrical power failure, the rudder was stuck at an angle of port 18° and “60012” was turning to port continuously. The master left the bridge to check the generator in the engine room leaving the bridge unattended.
- 3.15 At 2050 hours, “60012” was at position 39°47.15’N/119°42.39’E with a speed of 9.91 knots and a course of 002°.
- 3.16 At about 2059 hours, “60012” collided with *the vessel* before the master could return to the bridge. The fishermen heard the sound of collision. The master announced the collision accident to all crew immediately. The chief officer fell overboard from the starboard quarter and was missing at sea. “60012” got water ingress through the damaged hull and listed. The crew shouted to *the vessel* for help.

### **SAR operation**

- 3.17 During the SAR operation, nine fishermen boarded *the vessel* via the accommodation ladder at 2155 hours. “60012” remained afloat in listed condition, and was towed back to port later.
- 3.18 After receiving the report of the collision, Qinhuangdao MRCC coordinated an immediate SAR operation. Until the SAR operation stood down at 1700 hours on 3 January 2018, the chief officer of “60012” was still missing at sea. No pollution was reported.

## 4. Analysis

### **Manning and the crew's working experience**

#### ***The vessel***

- 4.1 *The vessel* was manned by 24 crew including the master and they came from the Philippines, Malaysia, India and Singapore. The master, officers and crew held valid certificates of competency and valid certificates of proficiency corresponding to their respective positions.
- 4.2 The master had served as a master for the ship management company (the Company) since 2011. He joined *the vessel* on 24 October 2017 for his second service for *the vessel*.
- 4.3 The third officer had served for the Company since 2013. He joined *the vessel* on 1 August 2017.
- 4.4 The fourth officer had served for the Company since 2014. He joined *the vessel* on 7 November 2017.
- 4.5 The duty watchkeeping rating, who was at the helm during the accident, joined *the vessel* on 24 June 2017.
- 4.6 The manning and experience of the crew met the mandatory requirements.

#### ***“60012”***

- 4.7 “60012” was manned by 10 Chinese fishermen. Among the 10 fishermen, the master held an expired certificate of competency for Grade 4 Chief Officer. The chief engineer held a valid certificate of competency.
- 4.8 According to the minimum manning requirements of her administration “*Measures of the Shandong Province for the Administration of Seaman in the Fishery Industry*”, “60012” should be manned with one Grade 2

master, one Grade 2 officer and one Grade 3 chief engineer. In other words, “60012” was manned by an under-qualified master, and short of one Grade 2 officer and did not meet the manning requirements.

### **Statutory certificates**

- 4.9 The statutory certificates of *the vessel* and “60012” were all valid and in order.

### **Environmental conditions**

- 4.10 The sea and weather conditions were not considered to have any bearing on the occurrence of the collision. No other vessel traffic was found in the vicinity interfering the maneuvering of *the vessel* and “60012”.

### **Damage of both vessels**

- 4.11 *The vessel* sustained minor indentation on the bulbous bow (Figure 3).



Figure 3 Damage to *the vessel*

- 4.12 “60012” sustained damage on her starboard hull and bridge. She was listed due to the water ingress into the engine room and living quarters (Figure 4).

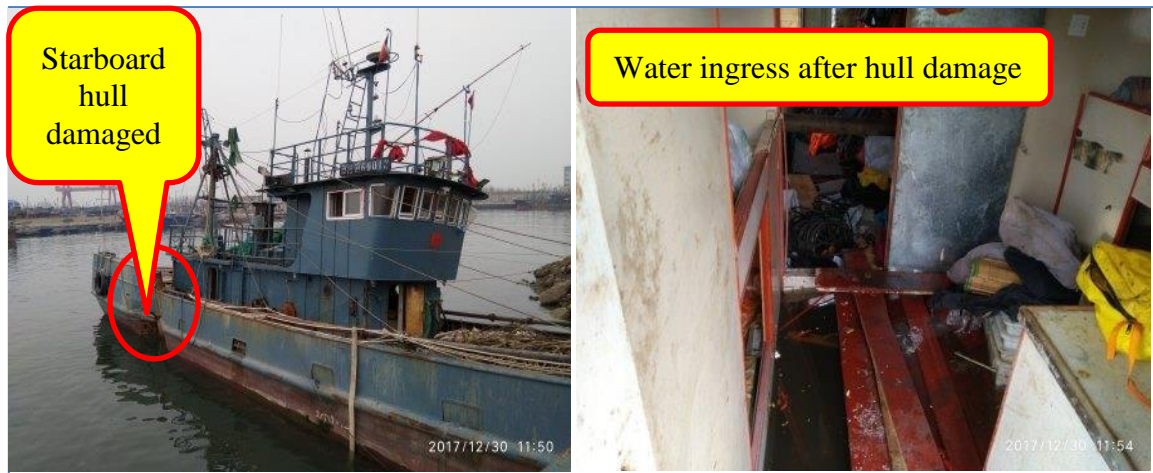


Figure 4 Damage to “60012”

#### **The tracks of both vessels before collision**

- 4.13 The movement records of “60012” and *the vessel* were retrieved from Fishery BeiDou Navigation Satellite System<sup>1</sup> (BDS) and *the vessel*’s ECDIS<sup>2</sup> records respectively. *The vessel*’s Voyage Date Recorder (VDR) was failed and the master had reported such failure to the Company for arranging repair when *the vessel* arrived at Qinhuangdao.
- 4.14 The data of corresponding movements of both vessels were retrieved and plotted as shown in Figure 5.

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<sup>1</sup> The system mainly includes the applications of fishing vessel navigation, fishery administration, fishing port management, marine disaster warning, short message communication for fishermen. It also provides the historical data of fishing vessels movement and tracking.

<sup>2</sup> Electronic Chart Display and Information System.



Figure 5 The tracks of both vessels about 14 minutes before the collision

#### **Watchkeeping practices on board *the vessel***

- 4.15 Based on the movement records of both vessels, at about 2041 hours on 28 December 2017, “60012” crossed *the vessel* at a distance of 3.3 nms from the starboard side to the port side and there was no collision risk.
- 4.16 At about 2048 hours after observing “60012” on her port bow at a distance of 2.3 nms, the master altered course to port side converging with “60012” at a speed of more than 13 knots and the converging speed of both vessels was faster than before. The master failed to keep a safe distance to pass “60012” by navigating with extreme caution and with due regard to the observance of good seamanship and extreme caution.
- 4.17 Although the master found “60012” was maneuvering in an abnormal manner, he did not prudently monitor and keep away from “60012” at a safe distance. The master failed to comply with Rule 8 of COLREGS (Action to avoid collision), i.e. the actions taken by *the vessel* were not positive, made in ample time and with due regard to the observance of good seamanship.

4.18 *The vessel* maintained at a full speed of about 14.4 knots until four minutes before the collision. Although the main engine was brought to full astern before the collision, the speed of *the vessel* was still about 9.3 knots at the time of the collision. *The vessel* failed to comply with the requirement of Rule 6 of COLREGS (Safe speed), i.e. did not at all times proceed at a safe speed so that she could take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

#### **Watchkeeping practices on board “60012”**

4.19 At 2050 hours, “60012” lost electric power and was out of control. The master left the bridge and went to engine room to check the generator. The bridge was unattended. The master failed to comply with Rule 5 of COLREGS (Look-out) to maintain a proper look-out.

4.20 With the rudder stuck at 18° to port, “60012” continued turning to port side from 002° with a speed of 9.9 knots, thus creating an imminent collision risk with *the vessel*. Since the master was in the engine room, he was not aware of the risk of collision and took no action of avoiding collision in accordance with Rule 8 of COLREGS (Action to avoid collision).

4.21 After the collision, the investigation found that the rudder indicator of “60012” was still at a position of 18 degrees to port side and the engine telegraph was in the ahead position.

4.22 Investigation also revealed that the master failed to act in accordance with Rule 27 of COLREGS (Vessels not under command or restricted in their ability to manoeuvre), as the master neither exhibited “vessel not under command” lights immediately, nor give out sound signals to warn the



vessels in the vicinity when “60012” was not under command due to electric power failure.

**Fatigue, alcohol and drugs abuse**

- 4.23 There was no evidence to show that the crew of *the vessel* had suffered from fatigue or alcohol and drugs abuse.
- 4.24 Furthermore, no information was available as to whether the master and fishermen of “60012” had suffered from fatigue or alcohol and drug abuse.

## 5. Conclusions

- 5.1 A collision occurred between *the vessel* and “60012” at position 39°47.32’N/119°41.83’E near the entrance channel of Qinhuangdao, China at about 2059 hours on 28 December 2017. As a result of the collision, “60012” sustained hull damage and listed due to water ingress. One fisherman was missing and five fishermen suffered minor injuries.
- 5.2 The investigation revealed that the main contributory factors of the accident were as follows:
- a) “60012” failed to maintain proper look-out to comply with the requirements of Rule 5 of COLREGS (Look-out). Prior to the collision, there was no watch-keeper on the bridge to take collision avoidance actions in accordance with Rule 8 of COLREGS (Action to avoid collision); and
  - b) *the vessel* failed to comply with the requirements of (i) Rule 6 of COLREGS (Safe speed) , i.e. did not at all times proceed at a safe speed so that she could take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions; and (ii) Rule 8 of COLREGS (Action to avoid collision), i.e. the actions taken by *the vessel* were not positive, made in ample time and with due regard to the observance of good seamanship.
- 5.3 The investigation also revealed that “60012” failed to comply with:
- a) the minimum manning requirements; and
  - b) Rule 27 of COLREGS (Vessels not under command or restricted in their ability to manoeuvre), i.e. failed to exhibit “vessel not under command” lights immediately, nor give out sound signals to warn

the vessels in the vicinity when “60012” was not under command due to electric power failure.

## **6. Recommendations**

- 6.1 A copy of this report should be sent to the master and the Company of *the vessel*, the China MSA and the owner of “60012” advising them of the findings of this accident investigation.
- 6.2 The Company should issue a circular to inform all their masters, officers and watchkeeping ratings on the findings of this accident investigation, and instruct them to comply with the rules of COLREGS at all times.
- 6.3 The owner of “60012” should:
  - a) ensure that the manning of their fishing vessels complies with the minimum safe manning requirements of their administration; and
  - b) remind their masters to comply with the rules of COLREGS at all times, particularly the requirements of maintaining proper lookout.

## **7. Submission**

7.1 The draft report had been sent to the following parties for their comments:

- a) the Company and master of *the vessel*;
- b) the China MSA;
- c) the master and the owner of “60012” ; and
- d) the Ship Safety Branch of the Marine Department.

7.2 By the end of the consultation, there was no comment received from the above mentioned parties.