



**Report on the Investigation of the Collision  
Between  
“CSCL NingBo” and “JinHaiDa 18”**

**On 23 August 2006**

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## **Glossary of Abbreviations and Acronyms**

AIS - Automatic Identification System

Collision Regulations - International Regulations for Prevention

Collisions at Sea

GPS - Global Positioning System

IMO - International Maritime Organization

SOLAS - Safety of Life at Sea Convention

VHF - Very High Frequency

UTC-Unit Time of Communication

ISM-International Safety Management Code

PSC-Port State Control

C/E-Chief Engineer

ROB-Remain On Board

ARPA-Automatic Radar Plotting Aid

VTS-Vessel Traffic System

MSA-Maritime Safety Administration

《COLREG 1972》 - International Regulations for Prevention Collisions  
at Sea 1972 edition

## **1. Summary**

1.1 At about 1115 hours on August 23rd, 2006, the Hong Kong registered container ship CSCL NingBo collided with China registered general cargo ship JinHaiDa 18 at the position of 24°10'.41N/118°17'.02E near Dongding Island.

1.2 As a result, JinHaiDa 18 sunk after collision, 8 crew members overboard, 5 crew were rescued, 1 crewmember died and 2 crewmembers were still missing.

1.3 The investigation has established that the cause of the accident is as follows:

### **1.3.1 “CSCL NingBo”**

(a) Negligence of look-out is the main reason that caused the accident.

Made of crossing situation is the direct reason that caused the accident.

(b) Not performed Stand-on Vessel responsibility

(c) Neglect of precaution by the ordinary practice and special circumstances

### **1.3.2 “JinHaiDa 18”**

(a) Negligence of look-out is the main reason that caused the accident.

(b) Not performed Give-way Vessel responsibility.

(c) Lacked crew members and overload is one reason that caused the accident.

## **2. Particulars of Vessels**

### **2.1 CSCL NingBo**

Ship name: CSCL NingBo    IMO Number: 9227015

Registration: Hong Kong    Call Sign: VRBH5

Gross Tonnage: 39941    Net Tonnage: 24458

Length of all: 260.05 M    Moulded breadth: 32.25 M

Moulded Depth: 19.30 M    Ship type: Container ship

Main engine capacity: 49680BHP    Year Built: January 21<sup>st</sup>, 2002

2.1.1 Owner: SEASPAN CORPORATION LTD.

All require certificates and certificate related to ISM Code onboard is still in effect.

#### 2.1.2 Crew Member Information

The ship was manned by twenty-two crew members, all of them were qualified.

The captain was born in 1965 and obtained master book from the Indian Government. He has experience of captain for 4 years.

The third mate was born in 1981 and obtained his officer book from the Philippine Government. He has 5 years of seafaring experience and it was his second year as a third mate.

#### 2.1.3 PSC Inspection

On June 26th, 2006, it was inspected by South Korea's Pusan port PSC,

with no records of defect or damage.

## **2.2 JinHaiDa 18**

### **Ship Particular**

Ship name: JinHaiDa 18      Registration Number: 080104000105  
Registration: Fuzhou      Gross Tonnage: 950      Net Tonnage: 532  
Length of all: 67.96M      Moulded breadth: 9.80 M  
Moulded Depth: 4.60M      Suggested carrying capacity: 1417 M/T  
Summer displacement: 2013.64 M/T      Light ship displacement: 566.80  
M/T Main engine capacity: 441KW      Ship type: General cargo ship  
Year Built: July 25<sup>th</sup>, 1993

2.2.1 Owner: Fuzhou Jin Fan Shipping Corporation LTD.

Ship's certificate onboard is still effective. "JinHaiDa 18" was managed by Fuzhou Jin Fang Corporation LTD. The company is in charge of 54 ships, all of which have management contracts with the Jin Fang Corporation. The company does not monitor all moments of every ship and the company does not have control over the crew members and their qualifications. The company lacks professional and technical skills relating to maritime affairs and machinery management.

2.2.2 Crew Member Information

There are 8 crewmembers on board. It was short of chief mate, second mate and second engineer. On-duty ratings on deck and engine room,

neither did they have certificate of qualification for crewmembers and on-duty qualification certificate.

The captain obtained his captain certificate of competency from Jiangsu MSA in 2002. The chief engineer, obtained his C/E certificate from FuZhou MSA in 1991, has 10 years of engineering experience and was employed for 5 months on this vessel. None of other seafarers has a license.

### 2.2.3 Loading and ROB Information

The ship loaded 1529.60 M/T of steel in Shanghai. The ship Summer displacement is 2013.64 M/T and Light ship displacement: 566.80 M/T. During this voyage, the ship are over its loading capacity about 83.4 tons. While the collision happened, the ship had 2 tons of diesel oil and 25 kg of lubricating oil on board.

## **3. Environmental Conditions**

It was Cloudy to scattered showers, wind direction: northeast (inclining towards east), wind speed: 3-7meters/second. Visibility was good.

## **4. Narrative**

### **4.1 “CSCL NingBo”**

“CSCL NingBo” set sail from berth “HaiTian” No.10 Xiamen to Hong

Kong at 2106 on 23rd August 2006, total loading 1980 TEU / 24265.7MT.

It departed drafts of forward 10.00 meters and aft 10.5 meters.

- At 2215, The pilot disembarked;
- At 2218, the main engine geared full ahead.
- At 2230, acrossed Jiujiu jiao light beacon ( $24^{\circ}20'.9N/118^{\circ}09'.3E$ ), the main engine was set to Ring Full Away. However, the wheel was still set to hand steering.
- At 2248, upon passing the NO.8 lightbuoy, the Master handed over the watch to the Third Officer. However, the captain was still in the wheelhouse.  
  
2 ARPA radars were in use and signaled GPS position. VHF was kept watch on channel 8.
- Around 2250, the captain found on the radar screen that there were some fishing boats on the originally planned route. Hence he had to alter the course at  $24^{\circ}12'.1N/118^{\circ}16'.6E$  to  $147^{\circ}$  ( T ) , sailed to  $24^{\circ}07'.6N/118^{\circ}19'.6E$  and then A/C to  $180^{\circ}$  ( T ) .
- At 2253, “CSCL NingBo” passed NO. 6 lightbuoy, A/C to  $121^{\circ}$  ( T ) , approximate speed of 18knots.
- At 2307, at  $24^{\circ}12'.0N/118^{\circ}16'.2E$ , according to the captain’s new navigation order, the third mate A/C to the right towards  $147^{\circ}$  ( T ) .
- At 2312, the captain saw that the front of the ship was only 20 meters away from coming ship (JIN HAIDA 18) immediately ordered wheel

hard starboard.

- Collision happened around 23:15 (UTC+8) . Location of collision, according to GPS was at 24°10'.41N/118°17'.02E. Speed at time of collision was 18.5 knots, course 149°.The port forecastle of “CSCL NingBo” collided with the starboard forecastle of “JinHaiDa 18”, and then also collided at the port stern, angle of collision was approximately 60°.

- At 2316, “CSCL NingBo” slowed down, sent an emergency alarm to all crew members to inspect the hull of ship. However, none of the crew members saw “JinHaiDa 18”, nor heard and noticed any signs of help and/or floatation device. They only discovered that the ship shell on portside near NO.3 hold was scraped, and that the port side hull of the third floor of the engine room was dented.

- At 2321, “CSCL NingBo” came to a complete stop. After the collision, the captain did not know that “JinHaiDa 18” had already sunken.

- At 0047 on 24<sup>th</sup>, “CSCL NingBo” sent a message to Xiamen VTS via CSCL Xiamen agent that the ship in collision did not sink, but had possibly left the site of collision. Hence requested for the permission to continue voyage. Xiamen’s Rescue Response Center and VTS did not approve such request, demanded that “CSCL NingBo” continue to search on site.

- At 0900 on the 24th, “CSCL NingBo” accepted the investigation at the assigned anchorage by the Xiamen MSA.

#### **4.2 “JinHaiDa 18”**

“JinHaiDa 18” set sail on August 20th, 2006 at midnight local time (UTC+8) from Shanghai to Guangzhou. Total loaded steel coil 1529.6M/T.

-At about 0300 on August 22, JinHaiDa 18” arrived at Pingtan’s DONG AO anchorage, apparently the first mate, second mate and one sailor left the ship, and a new sailor boarded.

- At about 0800 on August 23, it set sail for Guangzhou with 8 crew members on board.

- On August 23, from 2000-2400, the captain and a sailor (Chen Huaren, who apparently had a fisherman certificate) were on-duty in the bridge. They did not find any abnormal activities, the navigation and ship techniques remained normal.

- The wheel was hand-steering, course 220° (T) , speed at 8-9 knots.

- One radar was in use, one VHF watch on the channel 16.

- At about 2315, “CSCL NingBo” port bow hit the starboard bow of his ship, soon after, the ship’s stern hit the amidships of “CSCL NingBo”, and also bumped into the stern of “CSCL NingBo”. The ship then tilted towards the left, within a short period of time, of less than a minute, the

forecastle of the ship started to sink, the stern of the ship tilted upward and the whole ship sunk.

## **5. Search and rescue**

At 2320, upon receiving the message sent from “CSCL NingBo” about the collision at 24°10'N118°16.5'E, Rescue Response Center Xiamen immediately prepared a rescue plan, demanding “CSCL NingBo” to start on-site searching. It called a passing-by ship, “Tongda 66” to the rescue at the accident site and also notified the Maritime and Fishing Affairs Department of Zhangzhou City for organize fishing boats to assist in the search. At 0047, RRC Xiamen also negotiated with passing-by ships, “LianFa 66”, “YongAn”, and “HongTong 668” to assist in the search. On the 24th at 0710, “Dong Hai Jiu 131” discovered and saved 2 crew members. RRC Xiamen sent forth a helicopter, the MSA surveyor yacht, police boat and 16 fishing boats to the collision site searching. About at 1100, two other crew members were rescued by the fishing boat “Minlongyu 4077”. At about 1300, the chief engineer was also rescued by “Minlongyu F678”.

## **6. Consequences**

6.1 “JinHaiDa 18” was sunk as a result of the collision. 1 crew died and

2 crew were still missing.

6.2 “CSCL NingBo” sustained slight dents on port side shell plate at after sections.

## **7. Analysis**

### **7.1 “CSCL NingBo”**

(a) Lacked look-out is the main reason that caused the accident. Made of crossing situation is the direct reason that caused the accident.

According to the investigation and the record of radar track display ,when “CSCL NingBo” altered course from 180° (T) towards 121° (T) , until to 2307,the two ships’CPA was still greater than 1.0mile.At 2307, “CSCL NingBo” arrived WP 24°12'.40N,118°15'.70E then altered course to starboard to 147°(T). it is because of “CSCL NingBo” alter her course to starboard that elevated the close-quarters crossing situation.After “CSCL NINGBO” passed lightbuoy NO.6.She not maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions. The captain and third mate only noticed the incoming vessel when the two ships were 2 miles apart and did not radar plotting of the target ship via radar. “CSCL NINGBO” appeared to have failed to comply with 《COLREG 1972》 Rule fifth .

(b) Not performed Stand-on Vessel responsibility

At 2307, After alteration, “CSCL NingBo” and “JinHaiDa 18” Made of crossing situation. But “CSCL NingBo” did not realize the alteration would cause the risk of collision. As a Stand-on Vessel, She did not take the most effective action to avoid collision. It was not until when the incoming ship was only 20 meters away from its head. “CSCL NINGBO” appeared to have failed to comply with 《COLREG 1972》 Rule 17th, “Action by Stand-on Vessel” second items.

(c) Neglect of precaution by the ordinary practice and special circumstances

At the time of the accident, “CSCL NINGBO” was navigation in complexity traffic area where is the entrance of gulf of XiaMen and the habitual routing in TaiWan strait. The captain handed over the navigation watch to the third mate when the vessel passing JiuJie Jiao. The third mate not only had to navigate the ship, but also had to keep look-out and watch the radar. “CSCL NingBo” did not act appropriately to discern whether or not the incoming ship and itself had dangers of collision. Especial before alter its course.

## **7.2 “JinHaiDa 18”**

(a) Lacked look-out is the main reason that caused the accident. “JinHaiDa 18” still kept her course and speed from 2230 until time of collision. She did not maintain a proper look-out by sight and hearing as

well as by all available means appropriate in the prevailing circumstances and conditions. As a result, She didn't discovered the target ship and equivalent systematic observation and radar plotting of target ship. "JinHaiDa 18" appeared to have failed to comply with 《COLREG 1972》 Rule fifth .

**(b) Not performed Give- way Vessel responsibility**

"CSCL NingBo" alteration at 2307, made of both ship in crossing situation until collision at 2315. It is only 8 minutes limit to gave "JinHaiDa 18" that determine the coming ship movements. But "JinHaiDa 18" as a Give- way Vessel, She neither took actions as early as possible, nor take any actions of avoidance to keep well clear of "CSCL NingBo". "JinHaiDa 18" appeared to have failed to comply with 《COLREG 1972》 Rule 16 .

(c) Lacked crew members and overload is one reason that caused the accident.

This voyage The ship was not manned based on The certificate of minimum safe manning. As a result, She could not maintain a proper look-out. "JinHaiDa 18" is unseaworthy this voyage because it exceeded its maximum loading capacity. Although overload is not direct reason that caused the accident. But it extended losses that the accident caused.

## **8. Conclusions**

The investigation revealed the probable causes of the collision: Both navigators appeared to have failed to maintain a proper look-out and didn't make a full appraisal of the situation and of the risk of collision. "CSCL NingBo" altered her course to starboard, which caused the two ships to be in a close-quarters crossing situation. "CSCL NingBo" not performed Stand-on Vessel responsibility, she didn't take such action as will best aid to avoid collision.