

# **General Cargo Ship Chang Xin Major Marine Occurrence**

## **Executive Summary**

On 20 November 2019, the Taiwan-flagged general cargo ship Chang Xin, owned by Da Ren Sea Shipping Co., Ltd., with gross tonnage 7991, ship registration number 013643, and port of registry at the Port of Kaohsiung, was engaged in a cargo voyage from Haiying Terminal, Mawei District, Fuzhou City, Fujian Province, to Fu'ao Port, Nangan Township, Lienchiang County.

At approximately 2053, while navigating about 0.8 nautical miles north-northwest of Hujiang Island at the entrance to the Min River, Chang Xin collided with the bulk carrier Yue San Shui Huo 2688, owned by Foshan Sanshui Datong Shipping Co., Ltd., Guangdong Province (hereinafter referred to as Yue San Shui Huo). The vessel had gross tonnage 2032 and port of registry at Foshan Port.

The bow of Yue San Shui Huo struck the starboard side of Chang Xin, resulting in hull rupture below the waterline on the starboard side of the cargo hold and substantial flooding. As a result of the occurrence, 9 crew members of Chang Xin went overboard. Two crew members, the Taiwanese chief officer and cook, died in the occurrence. Chang Xin subsequently sank. The bow of Yue San Shui Huo sustained deformation damage. No environmental pollution occurred.

According to marine records and Automatic Identification System (AIS) data, Chang Xin departed Haiying Terminal, located approximately 13.4 nautical miles southwest of the occurrence site, at 1915 on 20 November. Prior to departure, the ship's main engine, auxiliary machinery, steering gear, communication equipment, and two radar units were all operating normally.

Chang Xin carried 9 persons on board, including the master and 8 crew

members. Among them, 6 were Taiwanese nationals and 3 were Indonesian nationals. At approximately 2100, Chang Xin was abandoned. At approximately 2120, the ship sank at the entrance to the Min River in Fujian Province.

On the day of the occurrence, Yue San Shui Huo carried 1 master and 5 crew members, totaling 6 persons, all of whom were Chinese nationals. At approximately 1900, Yue San Shui Huo departed Fujian Min River waters after sand extraction operations. The ship was navigating on a heading of approximately 270 degrees in the Min River approach channel near Buoy D19 when it collided with Chang Xin.

Between 2052 and 2054, during the collision sequence, Chang Xin altered course from approximately 089 degrees to 052 degrees to port, while ship speed decreased from 10.2 knots to 1.1 knots. After the collision, Chang Xin drifted toward the southeast. At 2119, AIS transmissions ceased and the ship subsequently sank.

Following the collision, Yue San Shui Huo departed the occurrence site and was later detained by personnel of the Fujian Maritime Safety Administration due to ship machinery failure and transferred for further legal proceedings.

In accordance with the Transportation Occurrence Investigation Act of Taiwan and the relevant provisions of the Casualty Investigation Code of the International Maritime Organization, the Taiwan Transportation Safety Board (TTSB) was the independent agency responsible for conducting this marine occurrence investigation. The organizations and agencies invited to participate in the investigation included the Maritime and Port Bureau of the Ministry of Transportation and Communications and Da Ren Sea Shipping Co., Ltd. This investigation report was approved by the 35th Board Meeting of the TTSB on 11 February 2022 and subsequently published.

After comprehensive investigation and analysis of the factual data, a total of

6 findings and 1 safety recommendation were obtained.

**The investigation identified 6 findings:**

1. The collision between the two ships occurred at 2053. The collision scenario involved the bow of Yue San Shui Huo striking the starboard side of Chang Xin, resulting in hull rupture, substantial flooding, and a 15-degree list to port on board Chang Xin.
2. The chief officer of Chang Xin, while on watch on the bridge, did not comply with narrow channel navigation requirements, did not maintain a proper lookout, did not take timely action to maintain the ship within the starboard side of the channel and improperly navigated into the opposing traffic lane, and did not effectively utilize radar and visual lookout. These actions ultimately resulted in the collision between the two ships.
3. The operator of Yue San Shui Huo did not ensure the proper functioning of the AIS equipment in accordance with regulations, creating navigational risks to surrounding ships.
4. The crew of Yue San Shui Huo were not suitably qualified, and the ship was not manned with sufficient qualified personnel, constituting a significant safety risk. During the occurrence voyage, a proper lookout was not maintained, ultimately resulting in the collision between the two ships.
5. Yue San Shui Huo did not hold valid ship registration and ship inspection certificates.
6. Following the collision, Yue San Shui Huo applied astern propulsion, which aggravated flooding on the starboard side of Chang Xin, reducing the available evacuation time for personnel. Chang Xin subsequently sank due to progressive flooding. After the occurrence, Yue San Shui Huo departed the scene and did not participate in search and rescue operations for Chang Xin.

## **Safety Recommendations**

### **To the Maritime and Port Bureau of the Ministry of Transportation and Communications**

1. In order to ensure that Taiwan-flagged ships comply with the requirements for navigation in narrow channels and maintaining a proper lookout, and to prevent similar occurrences from recurring, require watchkeeping officers, during evaluations conducted under the Regulations Governing the Management of Ship Safety Operations and Prevention of Pollution (NSM), to be familiar with electronic navigational aid systems, international conventions, and navigational safety requirements under the International Regulations for Preventing Collisions at Sea.

**Note:** The final report of this occurrence investigation is published in Chinese. To facilitate understanding for non-Chinese readers, the Executive Summary has been translated into English. While every effort has been made to ensure accuracy, discrepancies may occur. In the event of any inconsistency, the Chinese version shall prevail.