

# **General Cargo Ship Lucky Pioneer Major Marine Occurrence**

## **Executive Summary**

At 1327 on 20 August 2019, the general cargo ship Lucky Pioneer departed the Port of Hualien bound for Longmen-Jianshan Port, Penghu, carrying approximately 5,000 tonnes of sand and gravel. The ship's forward draft was 6.6 m and aft draft was 6.99 m.

At 0536 on 21 August 2019, Lucky Pioneer berthed at Wharf No. 9 of Longmen-Jianshan Port. After berthing was completed, the master instructed the crew to remove the hatch covers of the two cargo holds, lower an excavator from the wharf into the cargo hold, and prepare the cargo discharge conveyor system.

At 0725, the chief officer, the boatswain, and Able Seaman A activated the conveyor system for a trial run. Able Seaman A operated the motor control switch, the chief officer entered the cargo hold to inspect the cargo discharge operation, and the boatswain inspected the operating condition beside Conveyor No. 4 in Cargo Hold No. 2.

At approximately 0740, after the chief officer completed inspection of all conveyor belts in the cargo holds and was walking toward the stern, Able Seaman A noticed that the height of Conveyor No. 4 required adjustment and proceeded to the crane control station to operate the ship's cargo boom. At that moment, Able Seaman A suddenly heard the boatswain scream and observed that the boatswain's left arm had been severed. The boatswain was lying on deck suffering severe blood loss, while the severed arm had become entangled in the conveyor belt and trapped within the rotating shaft.

Another able seaman, Able Seaman B, who was preparing to take over watch

duties, discovered the occurrence and immediately proceeded to the electrical distribution room to shut down the power supply to the operating conveyor system and notified the master, who was on the bridge.

At 0748, an ambulance arrived and transported the injured boatswain to the Penghu Branch of Tri-Service General Hospital for emergency treatment. At 1215, the boatswain was airlifted by helicopter from Penghu to Kaohsiung for further medical treatment. The boatswain subsequently died from injuries sustained in the occurrence at 1321.

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 Zhang Hong Shipping Co., Ltd. This investigation report was approved by the 14th Board Meeting of the TTSB on 7 August 2020 and subsequently published.

After comprehensive investigation and analysis of the factual data, a total of 5 findings and 3 safety recommendations were obtained.

**The investigation identified 5 findings:**

1. The boatswain of Lucky Pioneer carried out adjustment work while the cargo hold conveyor system was in operation, resulting in the boatswain's left arm becoming entangled in the conveyor belt. The boatswain subsequently died from blood loss following traumatic amputation of the arm.
2. Lucky Pioneer Shipping Co., Ltd. had not established relevant procedures for shipboard operations involving safety-critical activities, including cargo

loading and unloading operations.

3. Lucky Pioneer Shipping Co., Ltd. did not establish and properly maintain records of daily hours of rest for seafarers.
4. Lucky Pioneer Shipping Co., Ltd. had not installed safety protection devices or warning signs for machinery and equipment on board that could pose hazards to shipboard personnel.
5. The safety management system of Lucky Pioneer Shipping Co., Ltd. still had room for improvement in complying with Article 4 of the Regulations Governing the Management of Ship Safety Operations and Prevention of Pollution.

### **Safety Recommendations**

#### **To Lucky Pioneer Shipping Co., Ltd.**

1. Strengthen existing manuals and operating requirements, particularly procedures related to cargo loading and unloading operations involving safety-critical shipboard operations.
2. Establish standard operating procedures for the creation and proper maintenance of records of daily hours of rest for seafarers.

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

1. Strengthen evaluations of the safety management and pollution prevention systems of Taiwan-flagged ships in order to ensure compliance with the objectives of the safety management system, including providing safe practices in ship operation and a safe working environment, establishing appropriate safeguards against identified risks, and improving the safety management skills of personnel ashore and on board ships.

## **Safety Actions Taken**

Following the occurrence, under the supervision of the Maritime and Port Bureau, Lucky Pioneer conducted safety meetings, implemented additional protective measures and standard operating procedure notices, established relevant cargo discharge procedures, and strengthened crew education and training to familiarize personnel with operational procedures.

On 27 February 2020, Lucky Pioneer passed evaluation, review, and approval by the Maritime and Port Bureau and was determined to comply with the Regulations Governing the Management of Ship Safety Operations and Prevention of Pollution. A Safety Management Certificate was subsequently issued for the ship.

**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.