



Accident Report

Jin Cang

Contact at "A" Beacon, Port of
Tauranga on 3 July 2004



REPORT NO.: 04 3504

VESSEL NAME: *JIN CANG*

Casualty Details:

Date of Casualty: 3 July 2004

Time of Casualty: 0200 hours New Zealand Standard Time (NZST)

Casualty Type: Contact

Casualty Location: "A" Beacon, Port of Tauranga

Weather Forecast Area: Plenty

Investigator: Ian Clarke, MSI, Tauranga



REPORT NO.: 04 3504
VESSEL NAME: *JIN CANG*

Vessel Details:

| | |
|----------------------------|------------------------------------|
| Ship Name: | <i>Jin Cang</i> |
| Built: | 1995 |
| Ship Category: | Bulk Carrier |
| Certified Operating Limit: | International |
| Overall Length (m): | 143.50 |
| Maximum Breadth: | 22.00 |
| Gross Tonnage: | 10 904 |
| Flag: | Peoples Republic of China |
| Registered Owner: | Dalian Marine Transport (Group) Co |



1. Key Events

- 1.1 On 2 July 2004, at 1625 hours New Zealand Standard Time (NZST), ***Jin Cang*** arrived at Tauranga, New Zealand from Bintulu in Malaysia to discharge a cargo of fertilizer. After receiving advice from the Port Radio Station that the Pilot would board at 0145 hours the following morning, the vessel anchored at No. 2 Quarantine Anchorage, in position 37° 37.2' S 176° 17.6' E.
- 1.2 On 3 July 2004, at 0105 hours, the anchor was aweigh and ***Jin Cang*** headed towards the Pilot Station at Full Ahead engine speed.
- 1.3 At 0135 hours, the Port Radio Station advised the Master that the Pilot would board at 0200 hours. The Master reduced the engine speed to Half Ahead. He estimated that the ship was making between 4 and 5 knots.
- 1.4 As the pilot launch headed out through the harbour entrance, the Pilot advised the Master by VHF radio to proceed towards 'A' Beacon and to maintain a speed of between 8 and 9 knots for boarding. The Master increased the engine speed to Full Ahead and told the Pilot that the ladder was on the starboard side. ***Jin Cang*** was heading to pass north of 'A' Beacon.
- 1.5 When the Master saw the pilot launch, he altered course to port, intending to make a lee for the Pilot, south of 'A' Beacon.
- 1.6 As the pilot launch approached ***Jin Cang***, the Pilot saw that the ship was very close to 'A' Beacon and heading directly towards it. The Pilot called the ship on VHF radio to advise the Master to take care as he was very close to the beacon. Getting no response from ***Jin Cang***, he repeated the warning and advised the ship to turn Hard to Starboard.
- 1.7 When the launch had passed around the ship's stern and onto its starboard quarter, the Pilot saw that ***Jin Cang's*** bow was very close to 'A' Beacon. He advised the Master to take whatever action was necessary to avoid hitting the beacon.
- 1.8 The Master altered course to starboard and ordered Half Ahead, then Stop Engine.
- 1.9 At 0200 hours, the port shoulder of ***Jin Cang*** came into contact with 'A' Beacon. The Master immediately ordered the helm Hard to Port, to swing the propeller away from the beacon.
- 1.10 On a westerly course, ***Jin Cang*** headed towards Matakana Bank. After some communication between the Pilot and Master by VHF radio (See section 2.9.4 of this report), the ship turned onto a safe heading and the Pilot was able to board.
- 1.11 'A' Beacon had disappeared from sight. Part of its structure landed on ***Jin Cang's*** fo'c's'le and the rest collapsed beneath the surface. There was no visible damage to the ship. The Master said that the forward tanks had been sounded and there was no ingress of water. Later, the beacon was replaced by a buoy, as a temporary mark, and was recovered and taken ashore for repairs



2. Key Conditions

2.1 *Jin Cang* is a bulk carrier registered in the Peoples Republic of China, with the following particulars:

- IMO Number 8896833
- Year of build 1995
- Overall length 143.50 m
- Breadth 22.00 m
- Moulded depth 12.20 m
- Summer draft 8.50 m
- Gross tonnage 10904
- Deadweight 15563 tonnes
- Displacement 20523 tonnes
- Service speed 13.0 knots
- Owner Dalian Marine Transport (Group) Co.

2.2 The drafts on arrival were:

- Forward 7.80 m
- Aft 8.00 m
- Cargo on board 12 976 tonnes of fertilizer

2.3 The weather was fine and clear, with winds of 25 knots, gusting to 30 knots from the south west.

2.4 Tides on 3 July 2004:

- Low water 0111 hours 0.3 m
- High water 0722 hours 2.0 m

2.5 The Pilot boarding position, with Mount Maunganui light bearing 211°(T), distant 3.2 miles, is shown on the navigational chart.

2.6 Five persons were on the bridge of *Jin Cang* during the interval between the time of weighing anchor and the Pilot boarding. They were the Master, the 2nd Officer, two Able Seamen and one Student. The Master was generally at the forepart of the wheelhouse, but used the VHF radio on the after starboard bulkhead. The 2nd Officer was stationed at the engine controls. One Able Seaman was on the helm and the other Able Seaman and the Student were standing-by in the wheelhouse. All crewmembers were nationals of the People's Republic of China.

2.7 Both radars and the echo sounder were on, but were not used immediately before contact with 'A' Beacon. *Jin Cang* was not fitted with a course recorder.

2.8 The Master's Evidence

2.8.1 The Master was born on 6 April 1969, and first went to sea in 1991. He joined *Jin Cang* in January 2004. *Jin Cang* was his first ship as Master and he was making his first visit to New Zealand. He held Certificate No. JBA 111200300845, as Master on ships of 3 000 gross tons or more and GMDSS General Operator, issued by the Liaoning Maritime Administration of the People's Republic of China, on 7 April 2003 and due to expire on 7 April 2008.

2.8.2 On 3 July, after weighing anchor, *Jin Cang* proceeded towards the pilot station. The Master said that he had been advised by the Port Radio Station to pick up the Pilot at 'A' Beacon and that the Pilot would board at 0145 hours.



- 2.8.3 All VHF radio communication between the ship and the pilot launch, and the ship and the Port Radio Station was carried out by the Master. *Jin Cang* was fitted with two VHF radios, both located in the after part of the wheelhouse.
- 2.8.4 At 0135 hours, the Port Radio Station informed the vessel that the Pilot would board at 0200 hours. Then, as the pilot launch came out, the Pilot advised the Master to go Full Ahead and keep the speed 8 to 9 knots for boarding. *Jin Cang* was initially heading to pass to the north of 'A' Beacon.
- 2.8.5 The Master said that when he sighted the pilot launch, he altered course to port, towards the harbour entrance, intending to make a lee for the Pilot to board south of 'A' Beacon. The new heading put 'A' Beacon on the starboard side of *Jin Cang* so that it would have passed clear of the ship.
- 2.8.6 When the ship was near 'A' Beacon the Master received the Pilot's advice to turn Hard to Starboard. Thinking that the Pilot must have had good reason to give this advice, such as an unmarked danger to navigation directly ahead of the ship, he altered course to starboard. As the ship turned, he ordered Half Ahead, then Stop Engine. The port bow of *Jin Cang* made contact with the beacon and the Master ordered the helm Hard to Port to ensure that the propeller passed clear of the beacon.

2.9 The Pilot's Evidence

- 2.9.1 The Pilot was appointed as a pilot by the Port of Tauranga Ltd in 1996. He held a current Certificate as Master of a Foreign Going Ship (Master Mariner) and Class I Deck Officer, renewed on 28 February 2002, and due to expire on 29 February 2007, and a Pilot's Licence NZ 2003/04, renewed on 1 March 2004, and due to expire on 1 March 2009.
- 2.9.2 On 3 July 2004, on board the pilot launch *Tauranga II*, the Pilot saw *Jin Cang* well east of 'A' Beacon. After passing 'B' and 'C' Buoys, he called the vessel on VHF radio, channel 12, to advise it to proceed towards 'A' Beacon. He told the ship that the speed for boarding the Pilot should be about 8 knots and asked which side of the ship the pilot ladder would be rigged. The Master told him that the ladder would be on the starboard side. Although this was the lee side while on a westerly heading, it would not be after the ship turned to port.
- 2.9.3 The pilot launch approached *Jin Cang's* port quarter to go round its stern for the Pilot to board on the starboard side. When the Pilot saw that *Jin Cang* was heading almost directly towards 'A' Beacon, which was close ahead, he called the Master to warn him that the ship was very close to the beacon and that he should take care. Getting no response, he repeated the warning and advised the Master to turn Hard to Starboard. This was again repeated but the vessel was slow to answer the VHF radio and respond to or query the advice given. The launch went round the stern of *Jin Cang*, to its starboard side, from where the Pilot could see the light of the beacon on the ship's port side, across its deck. He advised the Master to take whatever action was necessary to avoid the beacon. Shortly after that the ship struck the beacon with its port bow, forward of number one hatch. The beacon appeared to shake then fell against the ship.
- 2.9.4 *Jin Cang* continued on its westerly heading towards Matakana Bank. Concerned that it would run into danger, the Pilot called the Master by VHF radio and advised him to turn to seaward. He asked whether there was any damage to the ship or injuries to persons and if any assistance was needed, to which he received the reply that everything was all right and that there was no problem with the ship. The Master asked whether the Pilot would be boarding. The Pilot advised him to first proceed to seaward and get the ship out of danger. Getting no response, he called the ship again and asked it to proceed to seaward. There was still no response so he advised the ship to turn to head 045°(T) and asked what speed it was doing. The Master replied 3 to 4 knots. The Pilot again asked the ship to turn to 045°(T) and go Full



Ahead. The ship came around and headed towards the pilot launch. Concerned that it would run over what may remain of the beacon, the Pilot asked what course the ship was steering. The Master replied 110°(T). The Pilot repeated his advice to turn to 045°(T), go Full Ahead and proceed to seaward. The ship then turned to 045 °(T) and, when it was in a safe position, the Pilot boarded. After carrying out the Pilot/Master information exchange and questioning the Master about the incident, he brought the ship into port.

- 2.9.5 When the Pilot asked if the ship was seaworthy, the Master told him that the tanks had been sounded and it was not taking in water. The Pilot also asked why the ship had headed so close to the beacon to which he received no reply. Although the Master could speak English, communication was difficult throughout the inward passage, making it necessary to repeat instructions before they were understood. There did not appear to be any positions marked on the chart, apart from a cross, some Chinese characters and the figures 0200 next to 'A' Beacon.

2.10 The Pilot Launch Crew's Evidence

- 2.10.1 While the pilot launch was on its way out of Tauranga harbour, its crew saw *Jin Cang* to the east of 'A' Beacon. They heard the Pilot advising *Jin Cang* to head towards 'A' Beacon and to maintain a speed of 8 knots for boarding. The Launch was heading approximately 040°(T) and making a speed of 15.5 knots. (
- 2.10.2 As they approached *Jin Cang*, it became apparent to those on board the pilot launch that the ship was going to pass very close to 'A' Beacon. The Pilot repeatedly called the ship to advise the Mater to take whatever action was necessary to avoid the beacon. *Jin Cang* altered course to starboard and its port shoulder made contact with 'A' Beacon, after which it turning to starboard, across the remains of the beacon.
- 2.10.3 *Jin Cang* headed 290°(T) until it was about a mile from where 'A' Beacon had been. Seeing the vessel was close to the outer Matakana Bank, the Pilot advised it to head north. There was no response. He then advised the Master to steer 045°(T). *Jin Cang* turned to starboard and headed 110°(T). After the Pilot had made several more requests for *Jin Cang* to turn away from danger, it turned to head 045°(T).



3. Contributing Factors

N.B. These are not listed in order of importance.

- 3.1 ***Jin Cang*** was advised to proceed towards 'A' Beacon to pick up the Pilot.
- 3.2 The Master expected the Pilot to embark at 0145 hours, but at 0135 hours the boarding time was put back to 0200 hours.
- 3.3 The Master was told to maintain a speed of 8 to 9 knots for boarding.
- 3.4 Due to language difficulties, communication was slow and uncertain, which made it necessary for the Pilot to repeat his advice before getting any response from the ship.
- 3.5 ***Jin Cang's*** VHF radios were in the after part of its wheelhouse.
- 3.6 The Master carried out all VHF communication.
- 3.7 It was the Master's first visit to New Zealand.
- 3.8 The Pilot saw ***Jin Cang*** apparently heading directly towards 'A' Beacon. After advising the Master to take care and getting no response, he advised the Master to turn Hard to Starboard.
- 3.9 ***Jin Cang*** was initially heading to pass to the seaward side of 'A' Beacon. On sighting the pilot launch, the Master altered course to port. At night, from the pilot launch, it was not readily apparent that the ship was altering course and the Master did not communicate what he was doing.
- 3.10 The alteration of course to port appeared to have taken place at 0155 hours, which would have taken ***Jin Cang*** very close to 'A' Beacon.
- 3.11 Receiving advice to turn Hard to Starboard, the Master assumed that there was a hazard directly ahead of ***Jin Cang*** and turned his ship to avoid it.



4. Cause

Human Factor

| | | |
|---|--|---|
| <input type="checkbox"/> Failure to comply with regulations | <input type="checkbox"/> Drugs & Alcohol | <input type="checkbox"/> Overloading |
| <input type="checkbox"/> Failure to obtain ships position or course | <input type="checkbox"/> Fatigue | <input type="checkbox"/> Physiological |
| <input type="checkbox"/> Improper watchkeeping or lookout | <input type="checkbox"/> Lack of knowledge | <input type="checkbox"/> Ship Handling |
| <input type="checkbox"/> Misconduct/Negligence | <input checked="" type="checkbox"/> Error of judgement | <input checked="" type="checkbox"/> Other |

Environmental Factor

| | | | |
|--|---|------------------------------------|--|
| <input type="checkbox"/> Adverse weather | <input type="checkbox"/> Debris | <input type="checkbox"/> Ice | <input type="checkbox"/> Navigation hazard |
| <input type="checkbox"/> Adverse current | <input type="checkbox"/> Submerged object | <input type="checkbox"/> Lightning | <input type="checkbox"/> Other . . . |

Technical Factor

| | | |
|---|---|---|
| <input type="checkbox"/> Structural failure | <input type="checkbox"/> Wear & tear | <input type="checkbox"/> Steering failure |
| <input type="checkbox"/> Mechanical failure | <input type="checkbox"/> Improper welding | <input type="checkbox"/> Inadequate firefighting/lifesaving |
| <input type="checkbox"/> Electrical failure | <input type="checkbox"/> Inadequate maintenance | <input type="checkbox"/> Insufficient fuel |
| <input type="checkbox"/> Corrosion | <input type="checkbox"/> Inadequate stability | <input checked="" type="checkbox"/> Other . . . |

NB: *Human Factor Other = Communication*
Technical Factor Other = Location of Radios

- 4.1 While manoeuvring to embark a pilot, ***Jin Cang*** made contact with the Tauranga Fairway Beacon and demolished it.



5. Opinions & Recommendations

- 5.1 The accident was the result of difficulty in communicating between the ship and the pilot launch. It was the Master's first visit to New Zealand and he was uncertain about exactly where the ship was supposed to be to embark the Pilot. The Pilot saw the ship apparently heading straight for the beacon and did his best to warn the Master. Receiving no response, he advised the Master that he was very close to 'A' beacon, to take care and go hard to starboard. By that time, according to the Master, the ship had already turned to port and would allegedly have passed clear of the beacon. Thinking that some unknown danger may have lain ahead, he turned to starboard and hit the beacon.
- 5.2 After the accident, the Port of Tauranga Ltd reviewed its procedures for boarding pilots. As a result, measures have been introduced which have the pilot launch leaving the wharf 15 minutes earlier than previously arranged for inward bound vessels. Also Tauranga Port Radio is to pass clear messages by VHF radio advising masters not to approach closer than 2 miles to 'A' Beacon before the Pilot boards.
- 5.3 It is recommended that the owners of *Jin Cang* relocate the VHF radios to the forepart of the ship's wheelhouse.
- 5.4 It is recommended that whenever the Master of *Jin Cang* is uncertain about instructions received from Port Authorities, he should seek clarification before committing his vessel to enter un

