

Accident Report

# Trident

## Serious Injury

At Sea on 9 July 2004

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**REPORT NO. 96 293**

**VESSEL NAME: TRIDENT**

**CASUALTY DETAILS:**

**Date of Casualty:** 9 July 2004

**Time of Casualty:** 1030 hours New Zealand Standard Time

**Casualty Type:** Serious Injury

**Casualty Location:** At Sea

**Weather Forecast Area:** Foveaux

**Date MSA Notified:** 9 July 2004

**Date Investigation Started:** 9 July 2004

**Date Investigation Completed:** 20 October 2004

**Investigator:** Chris Grayson



**REPORT NO. 96 293**

**VESSEL NAME: TRIDENT**

**VESSEL DETAILS:**

<b>Ship Name:</b>	<i>Trident</i>
<b>Date of Build:</b>	1978
<b>Ship Category:</b>	Commercial Fishing
<b>Certified Operating Limit:</b>	Inshore & Coastal Limits
<b>Overall Length (m):</b>	11.7
<b>Flag:</b>	New Zealand
<b>Registered Owner:</b>	K D & J O White, White Fishing
<b>Classification Society:</b>	SGS-M&I

## KEY EVENTS

- 1.1 *Trident* sailed at 0315 hours, New Zealand Standard Time (NZST), on the morning of 8 July, from Riverton. On board was the Skipper and one crew member.
- 1.2 They fished from 0800 hours till 1830 hours and then slept from 2130 hours that evening.
- 1.3 On 9 July they got up at 0700 hours and commenced fishing at 0815 hours. The accident occurred at 1030 hours. They were fishing about 2 miles off Wairauahiri.
- 1.4 The weather and sea conditions at the time of the accident were reported as follows:- wind WNW 20 knots, swell SW 2.0 metres, visibility good. The tide was at the end of ebb and becoming slack. The forecast predicted a wind from the SW at 30 knots with a 3 metre SW swell.
- 1.5 *Trident* was operating further out to sea than the other boats in the area. The nearest other boat was *Larsen* which was fishing ½ mile inshore of *Trident*.
- 1.6 The accident occurred while a pot was being hauled. This was approximately the twentieth lift of the morning. Approximately 13 fathoms of line had been hauled inboard. The boat was operating in about 16 fathoms (32 metres) of water so the pot would have been just about to be lifted clear of the sea bed at the time of the accident. The line was leading slightly forward and the boat was doing about 3 knots engine speed to maintain position, with the waves coming over the port bow.
- 1.7 The Skipper, who was watching the line as it came on board, heard a loud ‘boom’ or ‘bang’. The support stay to the boom gave way and the boom swung inboard. The block located at the end of the boom then hit the crew member on the head. At first, he gave no indication of having been hit, but then he collapsed onto the deck.
- 1.8 The Skipper placed the crew member in the recovery position and called Bluff Radio on VHF channel 65, requesting a helicopter to rescue the injured crew member. The Skipper started heading towards Sandhill Reef, and then onto Port Craig. The cray pot that was being lifted at the time of the accident, was not landed on the boat and line was slipped. The pot was recovered intact at a later date.
- 1.9 The vessel arrived at Port Craig at 1120 hours and anchored. The fishing boat *Polaris* came alongside and one of her crew came onboard to assist.

**1.10** At approximately 1200 hours, the helicopter arrived. The Doctor was landed onto *Trident* shortly afterwards. The injured crewmember was airlifted to hospital.

**1.11** *Trident* returned to Riverton, arriving there about 4 hours later.

## KEY CONDITIONS

- 2.1 *Trident* (See Appendix 1 – Photograph) is a wooden hull fishing boat, built in 1978 by R D Scotts of Invercargill. She is used for trawling and cray fishing out of Riverton, Southland.
- 2.2 *Trident* is owned by KD & JO White of White Fishing, Riverton, who bought the boat in 1998. Their Safe Ship Management Company is SGS M&I. The SSM Certificate was issued on 16 August 2002 and expires on 30 June 2006. Her operating area, as specified on the Certificate is:
- Inshore Limits - Foveaux Strait, Otago,  
Coastal Limits – Within 12 miles of the coast of the South Island of New Zealand.
- 2.3 The last inspection of *Trident* prior to the accident, was on 23 July 2003. She was booked for her next inspection on the 13 July 2004. The last inspection by the local Maritime Safety Inspector was on 23 January 2004. No deficiencies were noted during these inspections.
- 2.4 *Trident* has an overall length of 11.7 metres.
- 2.5 The Skipper of *Trident* holds a Commercial Launch Master's Certificate Number 2275. The crew member does not hold a marine qualification and had only been working at sea for approximately one month. *Trident's* owners both hold marine qualifications.
- 2.6 *Trident* had capsized in January 2002 whilst arriving at Riverton and had been subsequently repaired by Goughs of Invercargill. Her wheelhouse was new and her pot hauling equipment had been rebuilt with some of the original fittings being re-used. However, the support stay for the booms was replaced after the capsized.

## **CONTRIBUTING FACTORS**

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

- 3.1** The weather conditions in which the boat was operating at the time of the accident. In commenting on the draft report, the owners stated that the weather on the day was normal operating conditions. There were 15 other vessels working in the area at the time.
- 3.2** The support stay was of a smaller diameter to that which it had replaced and was not as strong (*See Appendix 2 – Photograph*). In commenting on the draft report, the owners stated that the support stay was replaced by one of the same diameter, but made of heavy walled stainless steel. The previous one was made of mild steel.
- 3.3** The crew member was standing too close to the equipment under load. Although this was in the vessel's Hazard register, the Skipper should have instructed the crewmember to stand well clear at all times.
- 3.4** Lack of a documented training program for new and existing crewmembers and an inadequate training section in the SSM manual. Although the crew member had received onboard training, this training was still ongoing at the time of the accident, (*See Appendix 3 – Staff Training Record*). The SSM Manual did not cover training in fishing operations and associated equipment albeit the record showed he had been trained in the pot hauler operation. In commenting on the draft report, the owners stated that the SSM manual was unlikely to be more specific in fishing operations as each Skipper operated the vessel very differently. They are unsure of how to deal with this situation, except for each Skipper to write up his own training section to suit his operating methods.

## 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 type="checkbox"/> Error of judgement	<input 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 . . .

*N.B. Technical Factor Other = Overloading*

- 4.1** The cause would appear to be due to excessive weight coming from the boom and associated equipment onto the stay causing the stay to be overloaded and subsequently giving way.
- 4.2** The exact cause of the increase in weight cannot be determined exactly. However, it is reasonable to assume that it may have been caused by a combination of the pot being fouled on the seabed, the boat riding to the top of a wave and possibly falling back from her position (the pot hauling line was leading slightly forward at the time of the accident) while still on the top of a wave and the vessel taking a roll to port or starboard. This sudden increase in weight then transferred onto the stay, which bent before the relief valve on the hydraulic system could come into play.

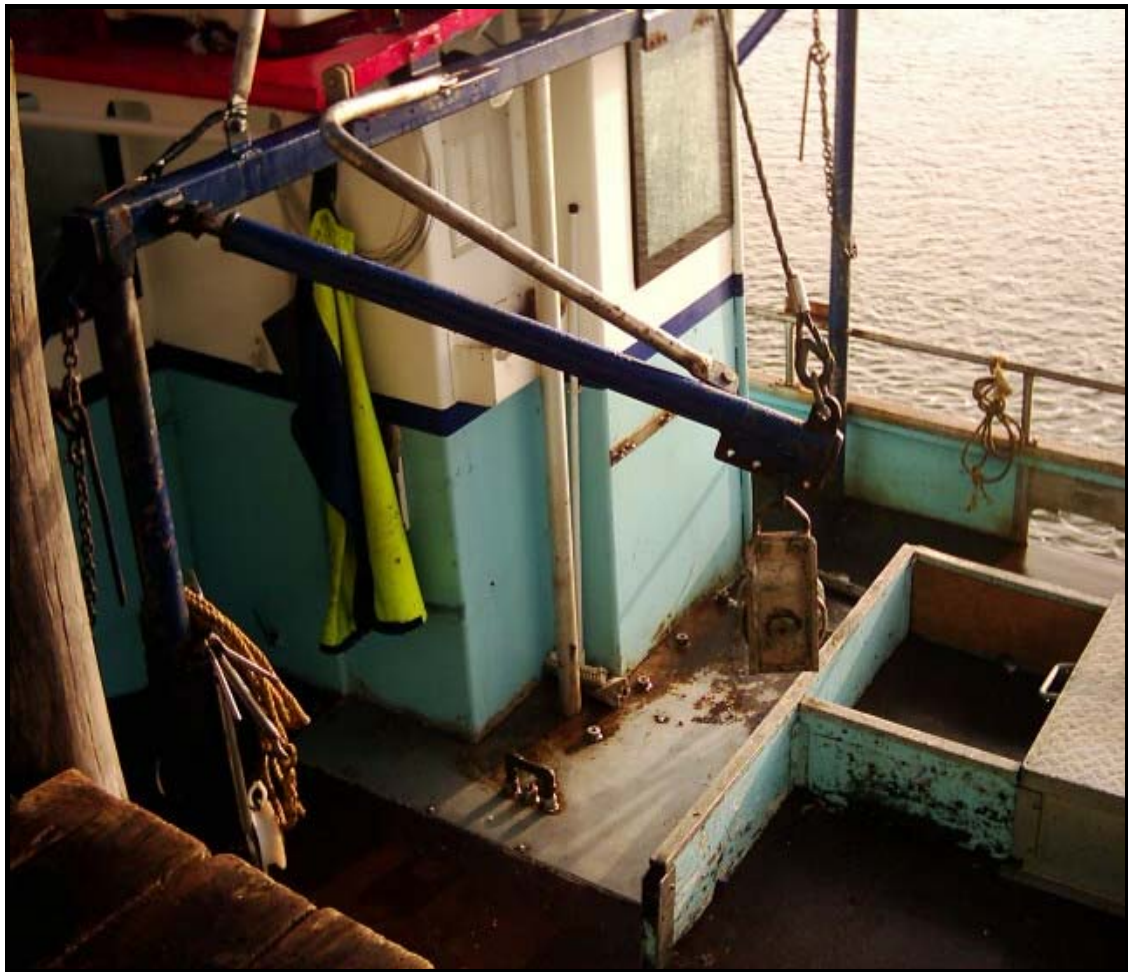
## OPINIONS & RECOMMENDATIONS

- 5.1** It is recommended that the Owners and Skipper implement procedures that requires:
- a) Crew members stand clear of the pot hauling equipment once they have engaged the rope hauler until the pot comes clear of the water. In commenting on the draft report, the owners noted that it is the responsibility of the Deckhand to swing the pot aboard.
  - b) A clear zone/safe area is marked on the deck of the boat, to indicate where it is safe to stand whilst the pots are being hauled in. In commenting on the draft report, the owners advised that this recommendation has been carried out.
- 5.2** The above two points be documented in both the Hazard Register and in the training section of the vessel's SSM manual, within two months of the final report being published.
- 5.3** The owner and Master to draw up a boat specific training program to cover all aspects of crew training. This training program to be documented in the SSM manual (training section), once it has been approved by the SSM Company. This training to be reviewed annually. Training should include in the operation of all fishing equipment and their associated hazards.
- 5.4** It is recommended that the Owners ensure the replacement support stay is of the same or similar construction and strength as the boom. In commenting on the draft report, the owners advised that this recommendation has been carried out.
- 5.5** It is recommended that copies of this report be passed to the vessel's SSM Company and to all other SSM companies, with a letter requesting them to examine critically the design, construction and strength of cray pot hauling booms and their associated support stays and standing gear, when they next inspect/survey vessels that are fitted with this equipment. In commenting on the draft report, the owners believed that this recommendation was a good idea. They have already checked other vessels themselves and found that most were not as strong or as well constructed as *Trident*, leading to the possibility of further accidents.

**APPENDIX 1**  
PHOTO OF *TRIDENT*



**APPENDIX 2**  
PHOTO



**APPENDIX 3**  
**SGS-M&I SHIPS MANAGEMENT SYSTEM**  
**SHIPS POLICY & PROCEDURES MANUAL FOR *TRIDENT***  
**SECTION 7, TRAINING FROM THE MANUAL**

**7.0 Training**

Training will be given to all crew members and support services staff on an as required basis as determined by the master.

**7.1 Vessel Induction Training**

7.1.1 When new crew members join the vessel, or as refresher training, an induction training programme, based on these ships manuals, will be given by the Master or his nominee.

7.1.2 The training given will be recorded in the log.

**7.2 Vessel Operation**

7.2.1 Adequate training will be given to all crew members in the basic operation of the vessel engine and controls to ensure that the crew would be capable of controlling the vessel in the event of an emergency.

7.2.2 This training will be given to all new crew members on joining the vessel.

7.2.3 Refresher training will be given from time to time to ensure the ongoing competency of crew members.

7.2.4 All training given will be recorded in the log.

**7.3 Radio Operation**

7.3.1 As for vessel operation (B 7.2) training will be given in the operation of the vessel radio, particularly VHF.

7.3.2 The training given will be recorded in the log.

**7.4 Fire Drills**

7.4.1 From time to time but not greater than six monthly intervals, fire drills will be conducted by the Master.

7.4.2 These drills will be set in different areas of the vessel eg, Engine room, wheelhouse, crew accommodation etc, to ensure that the crew fully understand the appropriate equipment and techniques to combat the fire.

7.4.3 These drills should be conducted during both daylight and night time hours.

7.4.4 All fire drills will be recorded in the log.

**7.5 Man Overboard Drills**

7.5.1 All as for Fire Drills (B 7.4) Man Overboard Drills will be conducted at not greater than six monthly intervals and during both daytime and night-time hours.

7.5.2 All man overboard drills will be recorded in the log.



**STAFF TRAINING RECORD**

Vessel Owner: KD + JO White Vessel Name: TRIDENT  
 Employee Name: GREG Heim Date Employed: 9.16.04  
 Position: Deck hand Qualifications: \_\_\_\_\_

Training Required	Training Provided	Training Provider	Date/s	Trainee Acknowledgement
<del>All</del> areas of safe cruy fishing operation	Saftey equipment	Chris White	9/16/04	
	Ropes + pots hauler	Chris White	9/16/04	
	Storing of gear	Chris White	12/6/04	
		Chris White	12/6/04	
Training	away	on going		