

Accident Report

Rotorua

Injury

Sulphur Point, Mt Maunganui on 30
September 2004

KEEPING YOUR SEA SAFE FOR LIFE



Maritime Safety

MARITIME SAFETY AUTHORITY OF NEW ZEALAND
Kia Maanu Kia Ora



REPORT NO.: 96 305

VESSEL NAME: ROTORUA

CASUALTY DETAILS:

Date of Casualty: 30 September 2004

Time of Casualty: 1105 hours New Zealand Standard Time (NZST)

Casualty Type: Injury

Casualty Location: Sulphur Point, Mt Maunganui

Weather Forecast Area: Plenty

Investigator: Ian Clarke



REPORT NO.: **96 305**

VESSEL NAME: **ROTORUA**

VESSEL DETAILS:

Ship Name:	<i>Rotorua</i>
Date of Build:	1991
Ship Category:	Roll on-Roll off cargo
Certified Operating Limit:	International
Gross Tonnage:	16 075
Flag:	St Vincent & Grenadines
Registered Owner:	Ruby Maritime
Ship Manager:	Oceanbulk Maritime
Classification Society:	Russian Maritime Register of Shipping

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SUMMARY

While loading a flatrack stowed with sheets of plywood into No 4 tween-deck on board *Rotorua*, a stevedore put his fingers round a lifting chain and got them caught, losing the tip of one finger.

1. KEY EVENTS

- 1.1** On Thursday 30 September 2004, *Rotorua* was alongside Sulphur Point container wharf, Mount Maunganui, loading containers and standard 20 foot flat-rack bases stowed with plywood and particle-board.
- 1.2** At 0300 hours New Zealand Standard Time (NZST), a new shift of stevedores boarded the vessel and took over the loading. Two stevedores who in this report are called Stevedore 1 and Stevedore 2 loaded cargo into at No. 2 tween-deck. Stevedore 2 drove the crane and Stevedore 1 was the hatchman.
- 1.3** From 0600 to 0630 hours the stevedores took a break, after which Stevedore 1 drove the crane and Stevedore 2 was hatchman.
- 1.4** The next break was from 0900 to 0930 hours. After the break Stevedore 1 and Stevedore 2 were transferred to Hold No 4 where they loaded flat-racks stacked with wood products. Stevedore 2 drove the crane and Stevedore 1 was hatchman.
- 1.5** At about 1100 hours, the crane driver brought a flat-rack loaded with plywood over the centre of No. 4 tween-deck. Another flat-rack was already stowed at the forward end of the hatch and the next load was to be placed abaft it. He positioned the flat-rack about 200 mm above the securing lugs fitted to the deck. Stevedore 1 stood in the tween deck to starboard of the load and used a UHF radio to guide the crane driver. The radio was in his right hand and he steadied the load with his left.
- 1.6** When the load was in position, Stevedore 1 told the crane driver to “come back.” Stevedore 2 lowered the flat-rack into its securing lugs. A short time earlier, Stevedore 1 had lost the leather glove for his left hand and was holding the chain with his bare hand. As the load came down, the chain became slack then tightened again, trapping the fingers of his left hand between the chain and the plywood.
- 1.7** Stevedore 1 lost the end of the middle finger on his left hand, just beyond the first joint. He walked off the ship and was treated by the Stevedore Supervisor who placed a dressing with saline solution over the wound. He was then taken to Tauranga Hospital.

2. KEY CONDITIONS

- 2.1** *Rotorua* is a roll-on-roll-off cargo ship operated by Oceanbulk Maritime and registered in Saint Vincent and the Grenadines. The vessel has the following general particulars:
- IMO No 8902280
 - Year of Build 1990
 - Gross tonnage 16 075
- 2.2** *Rotorua* has an International Ship Safety Management Certificate issued by the Russian Maritime Register of Shipping on 30 October 2003, due to expire on 8 September 2008.
- 2.3** The tween-deck in No. 4 cargo hold was sloped, with the after end higher than forward end. The after end of the flat-rack came in contact with the deck first. To steady and guide the load, Stevedore 1 held a chain at an after corner, which become slack when the after end of the flat-rack landed. It would have tightened again when the forward end landed as the spreader adjusted to the change in tension on the four chains.
- 2.4** The Stevedoring Company was Tauranga Stevedores.
- 2.5** The cargo being loaded into No. 4 tween-deck was a standard 20 foot flat-rack stowed with sheets of plywood. The flat-rack was suspended at its corners by four container lifting lugs and chains attached vertically to a 20 foot container spreader. The flat-rack was one of several similar units with a mass of between 16 and 22 tonnes.
- 2.6** Tauranga Stevedores had a comprehensive hazard identification manual that covered most foreseeable situations encountered by their employees. Although the hazard identification included precautions to be observed when using lifting gear, such as chains and wire slings, there was no specific instruction about steadying a load by hand. Both Stevedore 1 and Stevedore 2 had read the manual.
- 2.7 Stevedore 1**
- 2.7.1** Stevedore 1 had worked as a stevedore since 1979 and had been employed by Tauranga Stevedores for the past 15 years.
- 2.7.2** On Monday 27 September 2004, he worked a 12 hour shift and on Tuesday 28 September he worked an 8 hour shift. He did not work on Wednesday 29 September and went to bed at 2000 hours, to rise at 0230 hours on Thursday 30 September. He stated that he had slept well, was in good health and feeling fine and had not taken any alcohol or drugs. This was his only accident during his time as a stevedore.

2.8 Stevedore 2

2.8.1 Stevedore 2 had worked as a stevedore since 1971 and had been a crane driver since 1980. He was employed by Tauranga Stevedores.

2.8.2 Stevedore 2 said that the crane controls were standard, with topping and slewing levers operated by the left hand and the hoist lever by the right hand. The crane worked smoothly.

2.8.3 Stevedore 2 said that the crane window was dirty but he had it fully open and so had a good view of the tween-deck. He could see Stevedore 1.

2.9 The weather was fine but cool.

2.10 Although there were other stevedores working in No. 4 tween-deck, no one else witnessed the accident.

3. CONTRIBUTING FACTORS

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

- 3.1 Stevedore 1 had lost a glove and was steadying the load with his bare hand.
- 3.2 Stevedore 1 had his fingers around the chain.
- 3.3 The slope of No. 4 tween-deck caused the after end of the flat-rack to land first.
- 3.4 The chain at the after end jerked tight when the forward end of the flat-rack landed.

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 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 type="checkbox"/> Other . . .

N.B. Human Factor Other = Improper Holding

- 4.1** A stevedore was steadying a load with his bare hand when a chain sling jerked tight, severing the tip of the middle finger of his left hand.

5. OPINIONS & RECOMMENDATIONS

- 5.1** On 20 October 2004, Tauranga Stevedores revised their Hazard Identification Manual to include the following entry:

Overheight side lifting gear – potential for injury to hand if caught between lifting legs and cargo. When manoeuvring cargo into position, push on cargo. Do not pull on lifting legs. Avoid placing hands between lifting legs and cargo. In order to minimize the potential for injury, gloves should be worn.

- 5.2** The Maritime Safety Authority concurs with the above and recommends that no further action be taken.