

The principal purpose of the Transport Accident Investigation Commission shall be to determine the circumstances and causes of accidents and incidents, with a view to avoiding similar occurrences in the future, rather than to ascribe blame to any person.



## SLACK SAFETY STANDARDS LEAD TO BOSUN'S DEATH

Poor adherence to safety standards on the stern trawler *Pantas No. 1* led to the death of the bosun from injuries sustained while directing hatch operations, the Transport Accident Investigation Commission said in its report on the accident.

The Commission identified four unsafe working practices, of which three contributed to the accident, which occurred at Bluff on April 22, 2009.

The Korean-registered *Pantas No. 1* was owned by the Pantas Corporation, which had chartered her to the New Zealand fishing company Northland Deepwater JV Ltd. The ship complied fully with a New Zealand safe ship management system.

The *Pantas No. 1* was berthed at No. 5 berth, Island Harbour at Bluff. A 12mm polyester "safety" line had been rigged around the No. 3 hatch at a height of between 150mm to about 200mm, but there was no way of rigging a substantial safety fence around the hatch.

Frozen cartons of squid were being unloaded using two of the vessel's own derricks, one plumbed over the hatch, the other being swung out over the side and over the wharf. The cartons were loaded onto a wooden pallet that was inside a cargo net and lifted using a cargo runner fitted to each derrick. Both winches were controlled by a single winch man positioned on the main deck for'ard of the starboard mast house.

The winch man was normally able to see both the hatch opening and the wharf but not into the No. 3 freezer hold. In this case his vision was partially obscured by equipment and nets.

A spotter, the bosun, at the hatch opening used visual or sound signals to direct the winch man.

Prior to the accident, a crew member in the hatch stepped onto the net and held on while it was lifted out of the hold. He said he did this because the ladder in the hold had been removed.

Once the crew member had got off the net, the bosun indicated with his arm for the cargo net to be put ashore, although the bosun was still looking down into the hold.

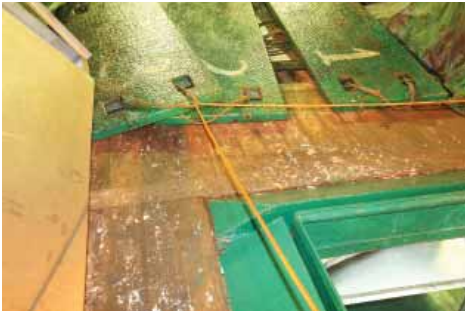
The winch man operated the controls to lift the net off the deck and over the side, and in doing so focussed his attention on the position of the cargo net and where he intended to land it on the wharf.

However, as he hoisted the net, the safety rope caught on the bottom of the pallet. As the load rose, so did the safety line, drawing the line initially taut, then pulling it through the loop of the main trawl net. As the "safety" line was pulled upwards on the port side, the movable hatch board was drawn towards the hatch opening, resulting in the safety line being drawn under tension over the hatch opening.

One of the two stevedores on the quay noticed the safety line had caught on the pallet and shouted a warning, which was either not heard or not understood. As the line tightened, it lifted up from the deck behind the bosun, a 52-year-old South Korean, who was crouching inside it, and caught him behind the legs under the buttocks, toppling him into the freezer hold.

As the load was swung out over the side of the ship the safety line dragged the movable hatch board over the opening, and as





The safety line looped around the hatch board



Looking down the hatch where the bosun fell



View from the winch man's position

the load was lowered onto the quay the hatch board was left suspended by the safety line in the hatch opening above the bosun, who was lying unconscious at the bottom of the hold.

Realising the danger to the bosun from the suspended hatch board, they moved him to the side of the hold. One stevedore jumped on board to help the crew, while the other raised the alarm and arranged for an ambulance.

The crew lowered the hatch board into the hold, placed the bosun on the board and used the derricks to transfer him to the quay. He was taken by ambulance to Southland Hospital with serious injuries to his head, neck and torso. He was transferred by air ambulance to Christchurch Hospital's neurosurgical unit the next day, but died of head injuries on April 29.

The Commission noted that when an investigator arrived on board the *Pantas No. 1* on April 23, the crew had welded stanchion holders around the No. 3 hatch and rigged a safety fence with three tiers of line.

"However, two days later, when the investigator reboarded the vessel, the fish pound hatch had been opened for some reason. No safety fence had been erected around this hatch. No warning signs had been erected to warn people of the open hatch."

In its analysis of the accident, the Commission said the winch man's view of the hatch opening was partially obscured by a trawl net and other equipment stowed on deck. So the bosun was using whistles as well as hand and arm signals to direct the winch man until the load was in the winch man's full view.

The safety line's colour would have blended into the background and the winch man might not have noticed it caught up on the bottom of the load, particularly as the bosun had signalled him to begin the hoist.

The "safety" line did not comply with the requirements of the Code of Safe Working Practices for Merchant Seafarers in the number, height, tension or position of the lines. The bosun would have overseen or helped place the line, which was rigged for his own safety. "Why he chose to accept it as a barrier could not be determined," the Commission said.

The bosun had probably stepped over the safety line on numerous occasions so he could have a better view into the fish hold. He should have been aware the line was unsafe and that stepping inside it was an additional violation.

Upper-level management could have also contributed to his death through fallible decisions on supervisory practices and resource management. There was no facility for fencing or guard rails to be fitted around the open hatch.

The task of erecting safety barriers around open hatches had been made difficult for the crew owing to poor maintenance of the stanchions, "a situation that had been accepted by both management and crew for some time.


"The failure of the crew to consider any form of protection around the fish pound hold observed by the investigator two days after the accident is significant. Their reaction to the accident

was to fully fence the No. 3 hatch only, yet the owners, master and crew did not have the safety awareness to extend this fix to other ... parts of the ship."

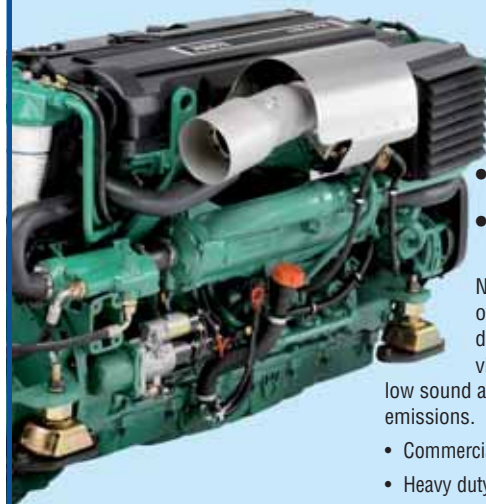
The Commission concluded that four unsafe acts indicated the safety culture on the vessel was less than optimal:

- not properly fencing the No. 3 hatch
- stepping inside the "safety" line
- riding the load, and
- not fencing the fish pond hatch.

After the accident, the Pantas Corporation modified the hatch coaming on the *Pantas No. 1* to allow stanchions to be fitted, and supplied removable stanchions and safety line so the hatches could be adequately guarded while in use.

On June 24, 2010, the Commission made a recommendation to the Director of Maritime New Zealand to address the issue of a poor safety culture that existed on the *Pantas No. 1* and to assess whether it might also extend to the ship's owner and operator. 

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