

MARINE OCCURRENCE REPORT

UNCONTROLLED FALL OF A LIFEBOAT

ON THE "FARANDOLE"
IN THE PORT OF CHICOUTIMI, QUEBEC
14 MAY 1996

REPORT NUMBER M96L0043

The Transportation Safety Board of Canada (TSB) investigated this occurrence for the purpose of advancing transportation safety. It is not the function of the Board to assign fault or determine civil or criminal liability.

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Summary

On 14 May 1996, the Bahamian-flag product carrier "FARANDOLE" was secured alongside at the port facility of the Alcan Smelters and Chemicals Limited at Ville de la Baie, Quebec.

After a totally enclosed lifeboat had been hoisted back to the level of the boat deck during an abandon ship drill, the forward on-load release hook opened. First, the lifeboat tipped forward, then the stern gave way. This resulted in the uncontrolled fall of the lifeboat to the water.

The four crew members who were on board were injured, and one had to take leave to recover.

Ce rapport est également disponible en français.

Other Factual Information

Particulars of the Vessel

Name	"FARANDOLE"
Port of Registry	Nassau, Bahamas
Flag	Bahamian
Official Number	723537
Type	Product carrier
Gross Tonnage	22,572
Length	176.0 m
Draught	Forward: 7.8 m Aft: 9.7 m
Built	1988, Pula, Yugoslavia
Propulsion	One 7,830 kW MAN
Cargo	24,033 tonnes of caustic soda
Crew	25
Owners	The Ownership Syndicate Houston, Texas

On 14 May 1996, the "FARANDOLE" was secured alongside Powell wharf waiting to resume unloading her cargo of caustic soda. At about 1515, the crew members carried out a monthly abandon ship drill, which on this occasion involved launching the starboard lifeboat and checking the engine.

The totally enclosed lifeboat accordingly was lowered to the boat deck and six crew members went on board. The davit winch brake was released and the lifeboat lowered into the water. The small safety pin was withdrawn from the housing of the control lever at the steering station. Then, the remote control lever was pulled to disengage the stud from the groove in the housing. The lever was moved from the vertical position to the horizontal to open the on-load release hooks; the davit falls were disengaged and the crew members made a run in Baie des Ha! Ha!, Quebec.

At about 1600, the lifeboat was manoeuvred alongside the starboard side of the vessel off the davits. The long links of the falls were engaged in the on-load release hooks, and the remote control lever was brought to the vertical position with some difficulty. The lifeboat was raised 30 to 40 cm above the water surface, but because the forward hook did not lock, the lifeboat was again lowered into the water.

To make certain that the long link remained engaged in the forward hook, tension was maintained on the forward fall, and the lever was again moved from the horizontal position to the

vertical. The hooks seemed to have locked and the lifeboat was hoisted

¹ All times are EDT (Coordinated Universal Time (UTC) minus four hours) unless otherwise stated.

to the level of the boat deck. Two crew members disembarked.

While the lifeboat was hanging approximately 8.3 m above the water, the long link became disengaged from the forward hook. With the after hook still locked, the lifeboat tipped forward. The transom and part of the structure holding the after hook separated from the forward part of the lifeboat, and the boat fell to the water. The after hook remained hanging from the after fall, with the safety pin inserted in the hook.

Two of the four crew members who were on board, and who were not wearing hard hats, suffered head and other injuries. Another crew member broke his ribs, and the fourth suffered neck and leg injuries.

A crane operator witnessed the accident and notified the dock foreman, who alerted the marine terminal's rescue squad. At about 1605, the marine terminal boat was launched, and the rescue squad picked up two of the crew members. The other two climbed onto the boat deck using the safety ladder. Two ambulances took the four injured men to hospital, where they were given first aid and then released that evening.

The vessel is equipped with two identical 28-person totally enclosed lifeboats mounted on gravity davits.

The training manual for lifeboat operation does not cover the unlocking and locking of the on-load release hooks. Also, the lifesaving equipment checklist does not include the davit hoist mechanism or the hydrostatic hook release mechanism for the lifeboats. Thus, the hook safety pins are not checked.

Because the part of the hook that supports the long link of the fall is not in the same vertical plane as the axle pin, a bending moment is exerted when there is a load on the hook. In the locked position, the hook is held in place by a safety pin and an interlock device.

The crew noted that there was no safety pin on the forward hook, neither when the lifeboat was launched nor when it was hoisted back on board. An inspection showed no damage to the forward hook, but the metal cable linking the forward hook to the remote control lever was severed. Also, there was corrosion in the housing of the metal cable, and the seals were missing.

The operator's manual states that in the locked mode, the remote control lever must be in the vertical position, so that the stud can slide into the groove and the safety pin can be inserted.

It was pointed out that after the previous month's launching, the starboard lifeboat had been hoisted back on board without incident.

Analysis

On the first attempt, the crew had difficulty moving the lever to the vertical position. They thought that to arm the hydrostatic hook release mechanism, they only had to move the lever to the vertical position and engage the stud in the groove of the housing.

On the second attempt, the crew concentrated on properly engaging the long links of the falls in the hooks. The interlock device was not examined. Thinking they had cocked the interlock device because the lever was in the vertical position and the hook was engaged, the crew hoisted the lifeboat.

The safety pin of the forward hook had not been replaced before the drill. Thus, the hook was engaged only by the interlock device. The presence of corrosion in the cable housing and the breaking of the metal cable hampered the cocking of the interlock device. Since the hook was not damaged, evidence indicates that the forward hook must have released from the interlock device.

The force of gravity exerted by the hook on the partially cocked interlock device caused it to tip down. The hook pivoted, and the long link of the forward fall released from the hook.

Findings

1. The monthly inspection did not include checking the hydrostatic hook release mechanism.
2. The interlock device was not completely cocked before the lifeboat was hoisted back on board.
3. The forward hook released during the lifeboat hoisting manoeuvre, causing the after hook to give way and resulting in the uncontrolled fall of the lifeboat.
4. The crew members who were not wearing their hard hats suffered head injuries.

Causes and Contributing Factors

The crew did not take all necessary actions to arm the hydrostatic hook release mechanism before hoisting the lifeboat back on board. The monthly inspection did not include checking the hydrostatic hook release mechanism. Thus, a safety pin was not replaced before the monthly abandon ship drill.

Safety Action Taken

Following this occurrence, the release mechanisms on both the starboard and port lifeboats were inspected. As a result, the mechanism on the starboard lifeboat was overhauled under class supervision. The ship's training manuals and lifeboat launching instructions were amended to reflect the proper operation of the

release mechanism and the importance of safety pins. The ship's maintenance manual was also amended to include a monthly inspection of the safety pins and a preventive maintenance program.

In view of a trend evident from other incidents involving faulty lifeboat release mechanisms, a TSB Marine Safety Information letter (MSI No. 22/92) and a Marine Safety Advisory (MSA No. 1/94) were forwarded to Transport Canada (TC). The latter suggested that TC promote an increased awareness among shipowners of the importance of preventive maintenance procedures for lifeboat release mechanisms. It was also suggested that TC ensure that adequate procedures for inspecting lifeboat release mechanisms are followed by its surveyors.

This report concludes the Transportation Safety Board's investigation into this occurrence. Consequently, the Board, consisting of Chairperson Benoît Bouchard, and members Maurice Harquail, Charles Simpson and W.A. Tadros, authorized the release of this report on 04 April 1997.

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The "SIR WILFRED GRENFELL" (TSB Report No. M92N5015); the "TAVERNER" (TSB Occurrence No. M93N5017); and the "OCEANIC MINDORO" (TSB Occurrence No. M93W1021)