

MARINE OCCURRENCE REPORT

STRIKING OF CRANES

**BY THE CYPRIOT BULK CARRIER "EVELYN"
AT THE DUNCAN WHARF, VILLE DE LA BAIE, QUEBEC
02 SEPTEMBER 1995**

REPORT NUMBER M95L0093

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 02 September 1995, the "EVELYN", in lightship condition, began departure manoeuvres at the Duncan Wharf in Ville de la Baie, Quebec. The vessel was under the conduct of a pilot and was assisted by two tugs. The "EVELYN" began to manoeuvre to move backward and struck an unloading crane of the Alcan Electrolysis and Chemical Company Ltd port facilities. During subsequent manoeuvres to bring the vessel back alongside, a second crane was struck. No one was injured, and the damage to the vessel and the cranes was minor.

Other Factual Information

Particulars of the Vessel

Name	"EVELYN"
Port of Registry	Limassol, Cyprus
Flag	Cypriot
Official Number	710066
Type	Bulk carrier
Gross Tonnage	12,866
Length	152.61 m
Draught	Forward: 2.85 m Aft: 5.75 m
Built	1983, Japan
Propulsion	One Sulzer 2SA engine, six cylinders, 5,958 kW
Owners	Maryville Maritime Inc. Piraeus, Greece

Shortly before 0800 on 02 September 1995, a pilot boarded the "EVELYN", moored starboard side to at berth No. 1 of the Duncan Wharf. The vessel was in lightship condition and ready to sail. At 0820, the first of two tugs, the "ALEXIS SIMARD", arrived on the scene and took up position at the stern of the "EVELYN". Two mooring lines were passed over the centre chock to the tug to serve as towlines. The second tug, the "GRANDE BAIE", arrived at 0835 and took up position on the port bow; two mooring lines were passed to that vessel also to serve as towlines. The order was given to let go all lines from the wharf, and, at the same time, the pilot gave the order for the tugs to pull. The vessel's main engine was not used, and the helm remained midships.

As soon as the mooring lines were let go, the vessel's bow moved about 10 m away from the wharf, and the vessel began to move backward at the same time. The tide had been high since 0730, and, because of the vessel's angle to the wharf, the starboard quarter passed over the wharf. It became clear that the "EVELYN" was on a course that would cause her to strike unloading crane UT-8, which is of the auger type. At 0838, the main engine was put to slow ahead, and the helm hard-a-starboard, to stop the vessel and move the stern away from the wharf. Before this manoeuvre produced any result, the starboard wing of the bridge and the raised, but unsecured, gangway struck crane UT-8. The pilot ordered the tugs to stop pulling. The main engine was stopped at 0841 because, by then, the "EVELYN" had move away from the wharf.

The pilot contacted the vessel's agent and brought the vessel back

alongside so that damage could be assessed. At that time, the "EVELYN" was opposite crane UT-6 which was approximately 25 m east of crane UT-8. The tug "ALEXIS SIMARD" was asked to tie up to the port side at hold No. 4. At 0856, the main engine of the "EVELYN" was put to slow ahead. The stern tug appears to have pushed harder than the other tug, and the vessel's stern once again preceded the bow along the wharf. The vessel's gangway struck crane UT-6, which sustained minor damage. The "EVELYN" moved away from the wharf again and finally tied up at berth No. 1 at 0920.

Duncan Wharf has five cranes on rails running along the wharf. When the cranes are not in use, they are usually stowed so as not to extend beyond the face of the wharf. The two cranes that were damaged were stowed when the "EVELYN" set sail.

After the accident, the minimum distances between the face of the wharf, including the fenders, and the damaged parts of cranes UT-8 and UT-6 were measured, as follows:

Crane UT-8:

- stairway 1.50 m
- corner of workshop 0.38 m
- forward handrail 0.61 m

Crane UT-6:

- stairway 1.57 m
- platform 2.29 m
- lampposts 1.98 m
- steel beam 2.54 m

The communications between the pilot and the tugs during the manoeuvring operations were conducted by VHF radiotelephone. As the communications were conducted on a working frequency, they were not recorded by a Marine Communications and Traffic Centre, because the centre does not keep a radio watch on this frequency. Therefore, the communications could not be cross-checked with the witnesses' statements.

Analysis

The statements from several witnesses are contradictory. As the communications between the vessel and the tugs were not recorded, it is hard to determine exactly what sequence of events led to the accident. The location of the cranes on the wharf and the minimum distance between them and the face of the wharf indicate that the vessel could hardly have struck the cranes while remaining parallel to the wharf. According to most witnesses, the bow moved away from the wharf as soon as the mooring lines were let go, and the stern remained against the wharf.

However, given that the vessel was in lightship condition and the tide was high, the top of the vessel's structure may have hit the cranes because of the flare of the hull aft. The distance travelled by the vessel along the wharf, as reported by witnesses, ranged between 5 m and 100 m. The minimum distance between the two damaged cranes was 25 m.

It was not possible to determine with certainty what order the pilot gave to the tugs. The expressions "pull me south" (tirez-moi au sud), "pull me off shore" (tirez-moi au large) and "that's OK" (c'est OK) could have been interpreted differently by the masters of the tugs and thus could have led to confusion during the manoeuvring operations because they were unclear. When the pilot asked the tugs to pull, the "ALEXIS SIMARD" was parallel to Duncan Wharf astern of the vessel. It seems that the manoeuvre was carried out eastward rather than southward.

The pilot could not see the stern tug from his conning position on the bridge. Similarly, the master of the "ALEXIS SIMARD" could not see the starboard side of the "EVELYN" while he was pulling her. The towlines were under 30 m long, and the breadth of the vessel is 24 m. Furthermore, there does not appear to have been any agreement as to the power the tugs were to use to perform the initial manoeuvres.

Reportedly, the pilot had explained to the master of the "EVELYN" the procedure that he intended to use for departure, and the master was in full agreement with it. The plan was to move the vessel away from the wharf and then make her move backward toward the bay. Apparently, the tugs were not informed of this procedure, and the manoeuvre did not produce the anticipated results.

Findings

1. There was no agreement as to the power the tugs were to use during the initial manoeuvres.
2. The pilot's intentions as to the manoeuvres to be used for departure were not communicated clearly to the tugs.
3. The terminology used during manoeuvring operations with tugs in port was not standardized and was open to all kinds of interpretations.
4. Each tug manoeuvred according to her master's knowledge and/or assessment of the situation.
5. The "EVELYN" struck cranes UT-8 and UT-6 because her lightship condition, the high tide and the sharp angle of the vessel to the wharf allowed the top part of her after structure to jut out over the wharf.

Causes and Contributing Factors

The "EVELYN" struck cranes UT-8 and UT-6 because all due precautions were not taken to ensure a safe and orderly departure. The manoeuvring orders given to the tugs were not sufficiently clear and precise. They were interpreted by each of the two tug masters according to his knowledge and/or assessment of the situation.

Safety Action Taken

Following this occurrence, the TSB forwarded an information letter to the Laurentian Pilotage Authority (LPA) to inform them of the findings of the investigation relating to communications between the masters of the tugs and the pilot during the departure manoeuvre. In addition, Alcan Electrolysis and Chemical Company Ltd has installed tape recorders on the tugs to record VHF radiotelephone conversations between tug masters and pilots.

This report concludes the Transportation Safety Board's investigation into this occurrence. Consequently, the Board, consisting of Chairperson Benoît Bouchard and members Maurice Harquail and W.A. Tadros, authorized the release of this report on 26 September 1996.