

**MARINE OCCURRENCE REPORT**

**GROUNDING**

**OF THE TANKER "MIMI"  
LANORAIE ANCHORAGE  
ST. LAWRENCE RIVER, QUEBEC  
21 SEPTEMBER 1994**

**REPORT NUMBER M94L0029**

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 21 September 1994, the tanker "MIMI", carrying 24,320 metric tonnes of miscellaneous petroleum products, was en route from Porvoo, Finland, to Montreal, Quebec, with a pilot on board. Because of her draught, the vessel had to anchor off Tracy, Quebec, to wait for a berth in Montreal.

At about 0323 EDT, the "MIMI" manoeuvred at reduced speed for the approach to the Lanoraie, Quebec, anchorage. When the vessel was in position, the anchor was dropped and the lever of the engine telegraph was placed on astern to stop the vessel. However, the main engine engaged on "ahead", and before the crew realized what was happening, the vessel gained speed and ran aground on the south-east bank. No injuries, damage or pollution were reported as a result of this occurrence.

Ce rapport est également disponible en français.

**FACTUAL INFORMATION****Particulars of the Vessel**

Name	"MIMI"
Port of Registry	Grimstad, Norway
Flag	Norwegian
Official Number	8920347
Type	Oil tanker
Gross Tonnage	21,145
Length	178.90 m
Draught	Forward: 10.6 m Aft: 10.3 m
Construction	Steel, 1992
Propulsion	One B&W 7,943 kW engine driving a fixed-pitch propeller.
Owners	Fram Tankers V Ltd. Monrovia, Liberia

Manoeuvring speed orders are transmitted from the bridge to the control room in the engine-room by engine telegraph. A mechanism automatically synchronizes the direction on the engine telegraph in the control room with the direction of rotation of the main engine. To start the main engine and give it the necessary speed during a manoeuvre, the control console in the control room is equipped with another lever located parallel to the engine telegraph. There is only one such lever, and it can be activated only by the engine-room personnel. However, control of the main engine can be transferred from the control room to the bridge console. The bridge personnel acknowledge this transfer by pressing a single button on the console. In this case, the bridge personnel chose to have the engine-room personnel control the main engine while the vessel was in confined waters.

When the "full astern" order was given, before the vessel ran aground, the lever of the engine telegraph in the engine-room was in the "full astern" position. The main engine was placed into reverse and the engine revolutions were increased using the throttle. Shortly afterward, it was noticed that the main engine was not turning in the right direction; the vessel's speed could not be reduced in time to stop the vessel, and she ran aground.

From the computer listing of the data recorder, it was possible to confirm that the main engine was turning in the "ahead" direction and that the throttle was set for reverse. However, the tachometer indicated that the main engine was turning in the "ahead" direction whereas the indicator light of the main engine rotation direction selector indicated "astern".

**ANALYSIS**

The mechanism is a pneumatic system, equipped with an indicator light, which changes the synchronization circuit and, hence, the direction of rotation of the main engine.

The computer listing of the data recorder and the indicator light of the main engine rotation direction selector indicate that the lever of the engine telegraph in the engine-room was in fact placed in the "astern" position. However, the tachometer and the thrust of the propeller indicate that the main engine was turning in the "ahead" direction.

It was reported that this failure of the mechanism was an isolated case, and that it had been reliable in the past. Subsequent tests did not indicate any malfunction.

**FINDINGS**

1. The main engine manoeuvres were controlled from the engine-room.
2. The direction of rotation of the main engine is selected automatically when the engineer of the watch carries out the manoeuvring orders sent from the bridge via the engine telegraph.
3. Although the main engine controls were set for "astern", it was noticed shortly afterward that the engine was actually turning in the "ahead" direction.
4. Subsequent tests of the engine telegraph mechanism in the control room did not indicate any malfunction.

**CAUSES**

The "MIMI" ran aground because of the unexpected thrust of the propeller in the "ahead" direction. Although the main engine was set for reverse rotation, it was noticed shortly afterward that it was turning in the "ahead" direction. The exact cause of the malfunction of the mechanism could not be determined.

**SAFETY ACTION TAKEN**

Subsequently, a service engineer from the engine manufacturer investigated the malfunction in the manoeuvring system. No error in the system was discovered. The malfunction has not re-occurred.

This report concludes the Transportation Safety Board's investigation into this occurrence. Consequently, the Board, consisting of Chairperson, John W. Stants, and members Zita Brunet and Hugh MacNeil, authorized the release of this report on 14 June 1995.