## SYNOPSIS

On 18 March 2001, the MAIB was notified that a fishing vessel had suffered substantial flooding, and had sunk 120 miles north-east of the River Tyne. An investigation began that day.

The North Shields steel fishing vessel *Christine Nielsen* was fishing 120 miles north-east of the River Tyne when her nets became fast on the seabed. While the crew were trying to haul back the starboard net, a hydraulic pipe from the winch to the hydraulic motor burst. All three crew spent the following several hours on deck replacing the burst section of pipe.

While they were on deck, the vessel suffered substantial flooding to the engine room. The flooding was not discovered until one of the crewmen went down into the engine room for a section of hydraulic hose. By then, the level of floodwater was well above the engine room floor plates. With the engine room in virtual darkness, because of the failure of the 24V electrical system, it was not possible to locate and open the valve in the bilge valve chest to operate the engine-driven bilge pumps.

After unsuccessful attempts were made to regain power to the 24V electrical system and to transmit a "Mayday", the crew abandoned the vessel into the liferaft. *Christine Nielsen* capsized soon after.

Shortly after boarding the liferaft the crew managed to activate the EPIRB which they had taken with them from the vessel. Three hours later they were rescued from the liferaft by a coastguard rescue helicopter.

One, or a combination of the following factors caused *Christine Nielsen*'s loss:

- A breach in the hull plating.
- Failure of a non-return valve in an overboard discharge, resulting in back- flooding.
- Engine room seawater piping failure due to erosion/corrosion.

Contributory causes were:

- Leaving the wheelhouse unattended for approximately 8 hours.
- The probable lack of a watertight bulkhead between the engine room and cabin.

The investigation has resulted in a recommendation to the skipper/owner of the vessel, to ensure that the wheelhouse is manned at all times at sea on any future vessel for which he is responsible.