

SYNOPSIS



On 26 March 2010, while embarking passengers and loading vehicles at Heysham, England, the ro-ro passenger ferry *Ben-My-Chree* moved approximately 8m along the quayside, causing serious damage to the passenger access structure. The foot-passenger walkway detached at both ends and collapsed onto the quayside, and the gangway detached from the vessel's side shell door and was left hanging on a single rope. Fortunately, there were no injuries. Eight passengers were trapped in the gangway compartment of the shore structure and were later rescued by the local fire service.

A number of weaknesses were evident in the passenger access structure, including:

- The quay on which the structure was built had suffered considerable settlement over the years;
- The walkway was secured to the rest of the structure with only two small bolts at either end, and;
- There were no records of inspections or maintenance work carried out on the structure.

Ben-My-Chree had just completed an extended period of repairs in a dry dock but still had electrical faults on the main circuit breakers connecting the main engine driven shaft generators to the bow thrusters. When *Ben-My-Chree* called at Heysham, shore electricians rectified the faults, and in order to provide electrical power to test the bow thruster, the starboard main engine was started with its controllable pitch propeller (CPP) set to zero pitch.

The accident was caused when the chief officer, intending to carry out pre-departure control tests, set the pitch lever of both main propulsion engine CPPs to the 100% ahead position. Expecting both shafts to be stationary, he had not noticed that the starboard engine and shaft were running at sea speed with its CPP set on zero pitch. The engineer who passed control of the engines to the bridge was not fully aware of which machinery was running, and had not informed the chief officer that the starboard shaft was turning. Running the main engines in port during passenger and vehicle operations was a normal activity on board this vessel, carried out once every 3 days to facilitate water-washing of the turbochargers on the main engines.

As all the mooring lines which could have restrained the vessel were set on autotension winches, the vessel surged forward as soon as the propeller thrust overcame the preset tension on the winches.

The Isle of Man Steam Packet Company (IOM-SPC) has since implemented a policy allowing its vessels a minimum of 24 hours after finishing any extended maintenance period to test systems and rectify defects before resuming passenger service.

The UK Major Ports Group (UKMPG) and British Ports Association (BPA) have been recommended to: review the risks of vessels running main engines while embarking/ disembarking passengers and vehicles; and, inspect the passenger access structures in their ports, following the best practices and guidelines available on the subject from the civil engineering industry.

The MAIB has published a safety flyer regarding the hazards of operating propulsion systems while embarking passengers and vehicles; the appropriate use of autotension winches; and the safety of passenger access structures.