SYNOPSIS

All times: UTC

At 1558 on 10 March 2006, the ro-ro passenger-vehicle ferry *Red Falcon* made heavy contact with the linkspan at Town Quay, Southampton. Eleven people - 8 passengers and 3 Red Funnel employees were injured as a result of the accident, and some of the vehicles on board were damaged.

Red Falcon, owned and operated by the Red Funnel Group, was permanently engaged on the route between Southampton and East Cowes, Isle of Wight. The vessel was designed and built specifically for the route in 1994 and, with two other nearly identical ferries, operated a 24 hour, year round, schedule.

The vessel was powered by two engines which each drove a five bladed Voith Schneider propulsion unit, one of which was located forward and one aft on the centreline of the vessel. The vessel was normally operated with the Voith units synchronised at circa 80% loading.

Two days before the accident, a loose securing bolt was discovered on the charge air cooler of the aft engine, and further loose bolts were subsequently found. The company's engineering superintendent made the decision that it was safe to continue to run the engine, on reduced power as necessary, until it was operationally convenient to undertake a permanent repair.

On 10 March 2006, *Red Falcon* departed from East Cowes at 1500 (5 minutes behind schedule), with 130 passengers and 65 vehicles on board for the passage to Southampton.

The master had the conduct of the vessel for departure from Cowes for which the Voith Schneider units were synchronised. However, once clear of the Cowes fairway, the master elected to desynchronise the Voith Schneider units, which meant that both units were operating but had to be controlled independently.

This decision enabled the forward engine to be run at full power while the aft engine could be run at reduced power as per the engineer's requirements. In this configuration, the master expected to be able to make the maximum speed for the passage and hopefully to make up some of the lost time.

An AB was then placed on the wheel and the master advised him that, with one of the engines operating on reduced power, more helm than normal may be needed to keep the vessel on course. The master, as was usual, remained on the bridge throughout the passage.

The chief officer came to the bridge as the vessel entered Southampton Water, and he took over the steering from the AB. He also took over the conduct of the vessel at that point. He was not informed that the Voith units were desynchronised.

As the vessel approached Town Quay, the chief officer began to reduce speed by adjusting the pitch setting on, what he believed to be, both of the Voith units. In fact he was only adjusting the pitch of the aft unit, and failed to notice that the forward unit was still operating at full power. Thus, although the vessel's speed reduced slightly, she continued to approach the linkspan at a much higher speed than usual.

With *Red Falcon* very close to the linkspan, the chief officer informed the master that the speed was not reducing as expected, whereupon the master suddenly remembered that the propulsion units were desynchronised. The master quickly put the units back into synchronisation, but not before contact with the linkspan occurred.

After the impact, the master took over the conduct of the vessel and positioned her to permit access by the emergency services.

The MAIB investigation has identified a number of key safety issues, including:

- The unnecessary risks associated with operating with the propulsion units desynchronised;
- Inadequate indication for operating in the desynchronised mode;
- Ineffective bridge handover procedures;
- The need for a safe speed of approach to Town Quay.

Actions taken by the Red Funnel Group and the Southampton Harbour Authority should prevent a recurrence of this accident.

Figure 1

Red Falcon detailing Voith Schneider propeller blades