

CPP failure caused heavy contact with lock gate



The vessel was berthed alongside a quay, waiting to proceed through a lock to another berth. The pilot called on the radio and asked the Master if it would be possible to depart in half an hour.

Pre-departure checks were completed by the OOW, the radar was tuned and the ECDIS set up for departure.

The OOW did not check the controllable pitch propeller (CPP) as the vessel had only been alongside for twelve hours and the OOW assumed everything should be OK. He also felt stressed about preparing everything for departure in such a short time. According to the company's SMS, the CPP should always be tested before departure.

The Master came on the bridge accompanied by the pilot. The OOW did a quick handover and then proceeded to the forward mooring station. The Master and pilot had a short pilot briefing and afterwards the Master gave the order to let go all lines.

The vessel proceeded towards the lock and was in the final approach when the Master realised that the CPP was not responding correctly and the vessel was rapidly approaching the lock. The Master attempted to recover control of the CPP system, but the pitch was stuck at approximately 40% ahead, causing the vessel to accelerate.

The Master panicked and was unsure what to do, so he shouted on the radio to the mooring parties to get the lines ashore and stop the vessel. The forward mooring party managed to get the forward spring secured to a bollard but no other lines were attached. The pilot ordered the tug that was standing by beside the vessel, to push the vessel towards the quay. This caused the vessel to make heavy contact with the quay, but unfortunately did not slow it down enough. The vessel continued towards the lock at a speed of about three knots, the forward spring broke with a loud bang, and finally the vessel made heavy contact with the outer lock gate.

Forty seconds after the impact the Master pushed the emergency stop button for propulsion. Afterwards the engine control room took control of the propulsion.

Shortly after the incident the Chief Engineer and First Engineer inspected the CPP system to determine if something was wrong.



Before any third party was able to investigate the CPP, the Chief Engineer cleared the system. This destroyed any evidence of what might have caused the failure.

The vessel was boarded by port state and class inspectors. The vessel sustained damage to its bulbous bow, the tug sustained minor damage and the lock gates sank. Fortunately there were no injuries or pollution. However there were costly repairs to both the lock and vessel.

It was also discovered that the company had had four similar CPP near misses reported on sister vessels. The company had not made any changes to the PMS (Planned Maintenance System) or sent any special instructions to the vessels in the fleet.

What can we learn?

- Ensure that the OOW understands why it is important to test all equipment as per the checklist, both for departure and arrival. This highlights the importance of carrying out the checks required by the SMS.
- The Master did not save the vessel's Voyage Data Recorder (VDR) – this was done by a port state inspector two hours after the incident. Always save the VDR, as soon as possible after an accident. It is important to have procedures that ensure that any evidence of what may have caused an accident is not removed or cleared in order to understand and learn why the accident happened.
- Always try to establish why an accident happened so it can be shared with the fleet. The near misses that had been reported to the company were never acted upon – there is no point in having a near miss reporting system if nothing is then done about the reports. Near misses and best practices should be shared within the fleet.

MEDIA ALERT!

Media risk points: The highly visible nature of the damage to the lock and vessel make it likely that this situation will attract media attention. The pattern of similar CPP near misses will create an easy target for any journalist who is able to identify the pattern. The pilot and local pilots' union may issue a statement (depending on culture). Any information from inside the company (e.g. former or current employees talking anonymously) could present a serious risk.

Recommended actions: A statement should be prepared and posted on the company's website, however no dark site (replacing the normal site) should be used as there have been no injuries or serious pollution. The statement should focus on the professionalism of the pilot and crew (look for positives rather than mistakes made) and on the absence of any environmental damage. A promise of a full investigation will be important. No speculation about blame should be included or directly responded to.