KEEP TO THE BASICS – The 2nd Part

4. Fixed and floating objects – keep to the basics – communication is the safety tool

A loaded ship had left an inland river port and proceeded down a major navigable river with pilots onboard. After leaving the port the chief engineer advised the master that there was a problem with the main engine, which needed to be repaired; this repair was to not so vital that the ship had to stop immediately. The master, after consulting with the pilots, was advised that the ship would be passing a river anchorage area in about 20 minutes time. The chief engineer was advised that the repair could safely be carried out at the anchorage.

Along the river bank upriver to the anchorage a new cargo terminal on a T jetty had only recently been built. As the ship approached the anchorage the pilot stopped the main engine so that he could assess the ships' movement in the strong astern current prior to making the final approach to dropping the anchor.

At this moment the engine staff – thinking that the ship had stopped decided to immobilise the main engine to effect repairs. The pilot after a minute of stopped engines seeing that the ship was veering to starboard required 'ahead' engine movements to gain steerage. When the engines were put ahead there was no engine reaction. A phone call to the engine room revealed that the engine was immobilised. The ship was now moving at 1 to 2 knots through the water with the strong current from astern and veering more to starboard. Crew members were already on the forecastle ready to let go the anchor.

The master and pilot decided to let go the starboard anchor; the ship still veering to starboard, the anchor was let go but it was not possible to hold onto the anchor with the brake and the chain was ran out; the ship's speed hardly diminished. The main engine was soon brought back and an astern movement given but it was too late and the ship hit the T jetty, damaging foundation dolphins, and the terminal loading equipment. The cost of the two minutes of poor seamanship was weeks off hire, repairs to the ship and tens of millions of dollars for the repairs and lost revenue to the jetty.

Lessons learned:

- *good communication is a Safety Tool – use it*
- *the master must take control of the situation at all times. He must*

command his ship. He must instruct the pilots and chief engineers under his command with vigour and authority

- *chief engineers must never immobilise a main engine, particularly when navigating in a narrow channel or in restricted waters without the express permission of the master*

- *any change to the plan, even in this case the passage plan must ring the proverbial alarms bells. A changing situation is always a potential for danger*

- *windlass brakes must be inspected in the Planned Maintenance System (PMS). Windlass brakes should be tested every year to ensure that they are in a good condition*

- *shipowners must instill in their crews the basics of good seamanship*

5. Cargo contamination – keep to the basics

A chemical tanker on her maiden voyage was loaded in the far east with high value non toxic products. In one set of tanks one grade of product was loaded in a port tank and another high value cargo was loaded in a starboard tank. During the loading operations blanks were fitted in the cargo lines to segregate the high value products. Although the chemical tanker had dedicated cargo lines for each set of port and starboard cargo tanks, she was built with only one valve separation.

At the discharge port the blanks were removed from the cargo lines. The chief officer in the fully automated Cargo Control Room (CCR), with a mimic board allowing all valves to be opened or closed and pumps to be started and stopped, was asked to discharge product from the port tank. After a few minutes pumping the starboard tank high level alarm activated. He accepted the alarm but thought it was a spurious alarm and took no further action. After another minute the starboard tank 'high-high' level alarm activated. At this moment the officer told the bosun to investigate but continued to pump product from the port tank. As the bosun appeared on deck he noticed product spraying from the Pressure Valves (PV). The alarm was raised by the bosun and the pumps shut down.

Product had been pumped from the port tank to the starboard tank, leaking past the single faulty crossover cargo valve and contaminated the high value product in the starboard tank.

It later was found that the automatic crossover valve was faulty, and although the mimic board indicated that the valve was closed it was in fact 25% open.

Lesson learned:

- *single valve segregation is fraught with risk; why is two valve segregation the preferred option? Consider using blanks if only single valve segregation is available*

- *management of change procedures should be included in any SMS. Rigorous checking of all valves on the maiden voyage must be a recorded procedure, if necessary carried out by additional and competent staff*

- *rigorous and careful cargo valve testing and inspection should be carried out before cargo discharge. Consider pressure testing lines with nitrogen to check valve integrity*

- *instruct all personnel in charge of a cargo watch that when a high level tank alarm sounds all plant should be shut down until the cause can be identified*

(Article extracted from The Standard Club's publication – Standard Safety)