

Lost his leg during mooring operation



It was early morning and the vessel was approaching the port. There was no wind or currents.

On the stern an AB was preparing the mooring ropes. The stern lines were put partly around a bollard with a bight at a right angle to the normal pull direction.

After the AB had prepared the mooring lines, the Third Officer joined him. They talked for a while before the berthing operation began. First the spring lines were sent ashore and made fast. The Master was on the bridge and he put the engine pitch to zero, allowing the vessel a slight forward moment. The rudder was hard to starboard as the vessel was berthing port side alongside. After the spring lines were secured the heaving line was connected to both stern lines.

The Chief Officer, who had been by the manifold, came to the stern to assist and took charge of the mooring winch. The Third Officer walked to the stern railing by the fairlead. The linesmen shouted that they were ready to receive the stern lines, so the AB began to lower the stern lines into the water. He was facing the mooring winch and had his back to the Third Officer by the railing. He let the mooring lines run out at a very high speed. Suddenly the Third Officer started to scream. The AB turned around and could see the Third Officer

was caught between the mooring line and the fairlead. The mooring line's speed was now so fast that it cut through the Officer's clothes and he was bleeding badly. The mooring line was actually cutting through the Third Officer's leg which was cut off just below the knee.

The Chief Officer realized that the mooring rope was stuck in the propeller and screamed over the VHF to the Master to stop the engine. The Master pushed the emergency stop and the propeller stopped. The Third Officer was still standing but in severe shock and he finally collapsed. The Chief Officer ran over to give first aid and the gangway was rigged. A first aid team from shore side came on board and helped. It took about 30 minutes for an ambulance to arrive and take the Officer to hospital. The Third Officer survived, but is now disabled and can never work at sea again.

What can we learn?

- The vessel had a risk assessment for the mooring operation, but it did not include the risk of the mooring line getting stuck in the propeller, as the mooring line should be floating in normal circumstances. This time the mooring line was lowered too quickly and ended up under the surface. The propeller blades are only 2 metres below the surface so the lines were sucked into the propeller.
- Another risk was that the mooring line was partly around the bollard, with a bight and a right angle to the normal pull direction. This arrangement caused the snapback zone to cover the entire area between the bollard and railing. When the rope ran out rapidly and got caught in the propeller it snapped back to where the Third Officer was standing. The Officer was actually outside the normal snapback zone, showing the importance of evaluating each situation independently. Although a normal operation, mooring is also a high risk operation and the risks need to be evaluated every time..
- It is important to always be aware of your surroundings and not stand too close to fairleads and ropes. Inexperienced crew members should be trained about these risks.
- When lines are prepared on deck the line-up should be in direct line with the expected movement of the rope.
- When passing lines to shore, they should be controlled and slowly passed to prevent the lines running below the water. This is also applicable for floating mooring lines.