The Swedish Club

## MONTHLY SAFETY SCENARIO

JANUARY 2022

# Serious injury during inspection

It was morning, the weather was good with a northerly wind, force 3-4 Beaufort.

A vessel was proceeding in calm seas at 14 knots. During the ten o'clock coffee break, the Chief Engineer informed the First Engineer that the ballast pump, which had been out of commission for some time, needed to be repaired before they arrived at the next port on the following evening. The First Engineer said he would inspect the pump after the break, with assistance from the Third Engineer and an oiler.

The previous day, the pump had been moved to the engine workshop and an oiler had removed the nuts on the pump case. The engineers were wearing safety shoes, gloves, boiler suits and helmets when they started to dismantle the pump. No work permit or risk assessment had been completed or checked before the job commenced. The engineers decided that this was a routine job that required neither a work permit nor risk assessment.

The engineers started to remove the shaft and impeller from the ballast pump. They secured the shaft in a threaded hole with a chain to an eyebolt. The engineers used a five-tonne safe working load (SWL) chain block, which was secured in a monorail, and the shaft was raised so the engineers could work on it more easily. The chain block was undamaged, certified and approved for the lifted weight.

It was decided that the shaft had to be moved to a larger workbench. To be able to do this, another chain block needed to be attached. The oiler left to find a suitable chain block. While waiting for the chain block, the engineers started to inspect the shaft and rotated it a couple of times when it was hanging over the workbench. Suddenly the shaft was unscrewed from the eyebolt, and the edge of the shaft landed heavily on the Third Engineer's hand, which was severed. The First Engineer was also seriously injured by the shaft, but fortunately, his hand was only crushed instead of severed.

The vessel diverted to the nearest harbour. Medical assistance was established with the Joint Rescue Coordination Centre (JRCC) and a helicopter was

dispatched, which arrived a couple of hours later. Both engineers' lives were saved, but unfortunately, they could not return to their careers at sea.

## Questions

When discussing this case, please consider that the actions taken at the time made sense for all involved. Do not only judge but also ask why you think these actions were taken and if this could happen on your vessel?

1. What were the immediate causes of this accident?
2. Is there a risk that this kind of accident could happen on our vessel?
3. How could this accident have been prevented?
4. Do we have a risk assessment for this kind of job?
5. If we do, could this risk assessment be improved?
6. Is a work permit required?
7. Would a risk assessment or work permit have identified the risk of the shaft being secured in this manner on our vessel?
8. Are all the relevant crew trained on how to use the equipment?
9. Is there any training that we should do that addresses these issues?
10. What sections of our SMS would have been breached, if any?
11. Does our SMS address these risks?
12. How could we improve our SMS to address these issues?
13. What do you think was the root cause of this accident?