



The Swedish Club

## MONTHLY SAFETY SCENARIO

JULY 2022

# Lack of communication led to serious main engine damage

An oil tanker was in port carrying out routine cargo operations. It was early morning and the Chief Engineer had planned to carry out a number of regular maintenance jobs. The oil tanker had been delivered eight months earlier and was a relatively new vessel.

The Chief Engineer had printed a list of jobs from the PMS which he gave to the engineers to complete. There was no specific discussion about the jobs between the Chief Engineer and the other engineers.



The First Engineer advised the Chief Engineer that he planned to start cleaning the main engine's air coolers. He also informed the Third Engineer (who was the duty engineer) and said that he would let him know when he had finished. No signs were posted, or any warning written in the log book.

After lunch a technician from the main engine manufacturer boarded the vessel to carry out some tests on the monitoring system and in the evening a Port State Control Officer (PSCO) also boarded the vessel to carry out an inspection.

The First Engineer began the job by cleaning the air coolers with water and chemicals, which takes a minimum of six hours. He was delayed and unable to complete the cleaning before dinner; his plan was to wash the air coolers after dinner with fresh water and let them dry overnight.



At dinnertime the Second Engineer was the only engineer in the engine room as the remainder of the engine crew had gone to the dining room. The Chief Engineer had asked the Second Engineer to assist the PSCO while he was inspecting the engine compartments.

After the technician had completed his tests, he asked the Second Engineer if he could start the main engine. The Third Engineer had not told the Second Engineer that the First Engineer was still working on the air coolers. The Second Engineer had seen the First Engineer working by the main engine but assumed he had completed the job. The Second Engineer started the main engine causing the cleaning mixture in the air coolers to be sucked into the main engine cylinders. This caused major damage to the main engine.

It was a company requirement to inform the DPA if the vessel is immobilised, this was not done even though the main engine was out of commission. It was also a company requirement to have a toolbox meeting when critical jobs are carried out, which was not held either.

## 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 could this 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. What sections of our SMS were breached if any?
5. Is our SMS sufficient to prevent this accident?
6. If procedures were breached, why do you think this was the case?
7. Is there a requirement to have morning meetings for discussing daily jobs?
8. If not, would it be beneficial?
9. What kind of jobs are considered critical?
10. Is it a requirement to have a toolbox meeting for these jobs?
11. Do we have a system in place that would have prevented the engineer from starting the engine?
12. What are our procedures when the vessel is immobilised?
13. Do we have risk assessment procedures on board that address these risks?
14. Would a work permit have identified these risks?
15. What do you think was the root cause of this accident?