



Hot work caused fire

It was evening and the crew of the general cargo vessel were preparing to secure the cargo by welding, which is customary when carrying steel cargo.

The Chief Officer completed a work permit and risk assessment before the job began. As per the hot work permit, fire extinguishers were in place and one AB was the designated fire watch.

The crew welded d-rings to the tween deck to be able to secure the cargo. After a while the bosun noticed smoke coming from the lower hold.

He immediately informed the Chief Officer about the smoke and tried to reach the area where the smoke was coming from with a fire hose but could not reach it. The Chief Officer assisted the bosun with a fire extinguisher but could not access the area, as the tween deck was full of cargo.

In the vicinity were a couple of oxygen and acetylene bottles. The crew moved these to safety. The Chief Officer then ordered everyone to evacuate the cargo hold.

The Chief Officer informed the Master who sounded the general alarm. The crew was mustered and accounted for.

A fire team was assembled and boundary cooling started. Fire hoses were also used for spraying water into the cargo hold. This did not extinguish the fire as more smoke was escaping from the hold.

The Master decided that the cargo hold hatch covers should be closed and CO2 released into it.

When the local fire brigade arrived it was decided that the cargo hatch cover should be opened. When the hatch covers were removed a great deal of smoke escaped from the cargo hold. The fire brigade and crew sprayed water into the hold and after a couple of hours the fire brigade confirmed that the fire had been extinguished.



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 would have been breached if any?
5. Is our SMS sufficient to prevent this kind of accident?
6. Does our SMS address these risks?
7. If procedures were breached, why do you think this was the case?
8. Do our procedures make sense to the work we actually do?
9. Are our firefighting drills effective enough to address the problems in this case?
10. What preventive measures do we take for hot work?
11. Is the hot work permit and risk assessment easy to fill out?
12. Do the hot work permit and risk assessment make sense for the work we are doing?
13. How can we improve our work permit and risk assessment?
14. What can we learn?