Broken crane wire caused serious injury

The container vessel was in port and the chief engineer had ordered a fuel barge while the cargo operation was underway. The 1st Engineer prepared all the checklists. The plan was to connect the fuel barge's hose to the bunker station on the main deck. This was a routine operation. The bunker barge came alongside the starboard side in the afternoon. An AB prepared the vessel's provision crane and lowered it so the crew on the fuel barge could secure the fuel hose and lift it onboard with the crane.

One of the crew members from the fuel barge came onboard to assist with connecting the fuel hose to the bunker station.

The lift up to the main deck was about 10 meters. The barge's crew member was standing underneath the hose when the AB lowered it to the deck to connect it to the bunker station. Suddenly a loud sound was heard and the entire derrick fell towards the deck, hit the railing and the fuel barge's crew member on his helmet.

The crane wire had snapped which caused the derrick to fall down and hit the crew member who was standing underneath it.

The crew member collapsed and fell onto the deck. He had a cut head, fractured jaw and spine. His helmet did not prevent these injuries.

He was rushed to hospital and received special treatment. He was lucky not to have fatal injuries but was seriously injured and could not return to work.

Discussion

Go to the “File“ menu and select “Save as...“ to save the pdf-file on your computer.

You can place the marker below each question to write the answer directly into the file.

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. If we see someone standing underneath a crane what are we as crew members supposed to do?

5. How often are our cranes and wires inspected?

6. What should be done if we find a broken strand on a wire?

7. Do we grease our wires correctly and do we use the correct grease?

8. Have we introduced required inspections and maintenance jobs as per the manufacturer's instructions in our PMS?

9. Can any other jobs be added to our PMS?

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?

14. Is there any kind of training that we could do that addresses these issues?

Issues to be considered

In the following investigation it was found that the crane wire was rusty and a couple of strands were broken; the wire was not in good condition.

Maintenance on the wire had been done as per the PMS and was filled out as completed with no remarks in the PMS system.

The wire had been renewed three years previously and should be renewed after five years, which is normal. The certificates were valid.