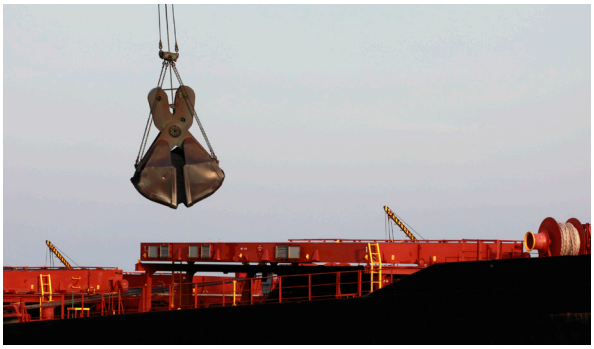
Injury – While climbing

The bulk carrier was alongside waiting to prepare for dry-docking. The vessel had cranes with grabs that weigh 10 tonnes and are higher than 4m and are used during the cargo operation. During the daily safety meeting the superintendent informed people that four grabs were to be taken ashore. The chief officer had done a risk assessment of the operation and was monitoring the operation on the vessel. The plan was to land the grabs in the open position onto a trailer on the quay.



An AB was operating the crane for lifting the grabs. On the quay were two cadets, the third officer, two ABs and the vessel's superintendent. The chief officer had instructed the two cadets to only help if specifically needed. The ABs were instructed to remove the wires when the grab was safely secured on the trailer.

The AB operating the crane landed the grabs on the trailer in the open position with the bucket in a forward and aft direction. As soon as the grab was landed on the trailer one of the cadets climbed onto the grab to release the wires. The Superintendent shouted to the cadet to get down at once.

When the grab was on the trailer the height was about 10 meters which was above the height restriction at the shipyard and on the roads, it was subsequently decided to change the plan.

It was decided to lay the bucket in the closed position and with one side resting on the trailer bed. The bucket was closed and the grab was lifted and swung to stow the bucket in an athwart-ship direction. When the grab was landed it was secured by thick wooden planks below the bucket sides. When the grab was stable the cadet once again climbed up on the grab to release the two hoisting wires from the crane. At this time the superintendent was focusing on something else and the other ABs and cadet were working with pulling some other wires on the trailer and didn't notice that the cadet had once again climbed up.

The cadet removed the wires from the grab. He had secured his safety harness to the grab but released the safety harness when he was climbing down. Instead he had secured a rope to the top of the grab which assisted him while climbing down. The grab appeared to be stable but was top heavy (center of gravity about 1/3 down from the top) as it was in the closed position.

While the cadet was climbing down from the grab it suddenly moved and fell into the water with the cadet.

The 3rd officer threw a lifebuoy to the cadet in the water. The cadet was taken to the hospital where he was diagnosed with serious injuries and internal bleeding.

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.

1. What were the immediate causes of this accident?

2. Is there a chain of error?

3. Is there a risk that this kind of accident could happen on our vessel?

4. How could this accident have been prevented?

5. What sections of our SMS would have been breached if any?

6. Is our SMS sufficient enough to prevent this kind of accident?

7. If procedures were breached why do you think this was the case?

8. Is this height a concern?

9. The risk of serious injuries increase substantially with the height. In this case it should be obvious that climbing onto a grab like this is very dangerous. Would these risks be discussed before a job like this is carried out?

10. If we have cadets onboard what jobs are they involved with?

11. How are cadets trained when joining our vessel?

12. What are our procedures for training new crew members?

13. What limitations are set for cadets?

14. Do we correct an identified issue with any safety issues immediately?

15. If someone is not wearing his required safety equipment, or wears it incorrectly, do we tell him?

16. What do you think is the root cause of this accident?

17. Do we have a risk assessment onboard that addresses these risks?