

Leaking cargo hatch covers caused cargo damage

The bulk carrier had 7 cargo holds which had been fully loaded with soybeans. The vessel had side rolling cargo hatch covers. For six days, the vessel encountered heavy weather at Beaufort scale 9 which caused the vessel to pitch and roll heavily. The cargo hatch covers were washed over by seawater.

All hatch covers were opened when the vessel was at anchor and waiting for an available berth. This was to ensure the vessel was gas free since fumigation had been carried out in all cargo holds at the loading port.

When removing the cargo hatch covers it was found that cargo in holds 1,2,3,4 and 7 had been damaged by water. Most of the water-damaged cargo was below the middle cross joint of the hatch covers and below the aft hatch coaming's corners.

According to the master there had not been any ventilation to the cargo holds during the voyage.

A surveyor carried out an inspection and found the following hatch cover parts to be in poor condition:

- Hatch cover panels
- Hatch coamings
- Water drain channels
- Non-return valves
- Quick cleats
- Rubber gaskets



A silver nitrate test was done and it confirmed that the cargo had been damaged by seawater.

The survey indicated that seawater had leaked through the middle cross joint drain channel and through the corner of the hatch coamings. ■

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. What are our procedures for inspecting the cargo hatch covers?

5. How do we ensure the cargo hatch covers are weathertight?

6. Do we use weather routing?

7. What sections of our SMS or PMS would have been breached if any?

8. Does our SMS or PMS address these risks?

9. How could we improve our SMS and PMS to address these issues?

10. What do you think was the root cause of this accident?

11. Is there any kind of training that we should do that addresses these issues?

Preparations before sailing

Before leaving port, the crew should inspect the hatch covers to ensure they are in a weathertight condition.

Ensure that gaskets and coamings are in good condition.

It is important that records are kept about what maintenance and service has been completed in the Planned Maintenance System (PMS).

The crew can ensure that the paint is intact, which will give good protection against corrosion. Corrosion on the hatch cover might cause a hole in the steel construction.

It is essential that cargo hatch covers are inspected and tested at regular intervals to ensure that the weathertight integrity is maintained and that the vessel is in a cargo worthy and seaworthy condition.