Fire in heavy weather

The RoRo vessel was underway and expected to sail through heavy weather with up to beaufort 10 and waves of 8 meters. During the departure the Master did discuss with the pilot about the possibilities of sailing inshore the entire passage. The pilot suggested that he could assist in getting another pilot further south and also suggested on where to anchor if the vessel had to seek shelter. The Master considered this option but decided to sail offshore as planned. This was because the Master considered that it would be too dangerous to sail inshore because of the risk of drifting as a result of the strong winds and that the vessel did not have charts for sailing inshore.

The cargo onboard was mostly vehicles, containers and Jerrycans on flat racks. Before loading commenced the chief officer went ashore to inspect the cargo. He did inspect the flat racks with the jerrycans which were secured with quick lashings through the handles of each row and secured to bars on the flat racks. He was concerned that the jerrycans were placed on flat racks and not in containers as there were no walls around the flat racks to protect the jerrycans. The flat racks on the forward part of the weather deck were secured with two lashings (and some with three or four) in each end. Some of the units were secured with lashings along the length of the unit. The containers were secured with a combination of web lashings and chains.

The vessel departed in the evening and the vessel was maintaining a speed of 18 knots to try to keep a distance to the heavy weather. The following morning the chief officer and crew did inspect the cargo and the chief officer only found minor issues to correct with some slack lashings which needed to be tighten and added some lashings to some units which were a bit lose or had not ideal angles.

Later in the morning the wind increased, the vessel started to roll and the master did slow down the speed. The vessel then sailed through heavy weather for the following 24 hours with up to beaufort 10 and waves of at least 8 meters. One of the containers came loose and it did hit one of the flat racks with jerrycans. The master believed it to be unsafe for the crew to enter weather deck and relash the container because of the heavy rolling. The vessel was rolling and pitching heavily and some of the cargo started to move. Some jerrycans fell onto the deck and leaked fuel. Waves and water washed over the weather deck. The master assumed that any fuel spilled on deck would have been washed away, this was not the case. The master altered the course to face the waves and reduce the

speed even further. This stopped the rolling but not the pitching.

From the cameras on the bridge sparks could be seen on weather deck from the moving containers. To prevent a fire from starting the electricity was turned off for the reefer units on weather deck and the sprinkler system was started. The master hoped that this would wash away all the fuel on deck but it didn't.

Suddenly big flames could be seen on weather deck through the vessel's cameras. The master activated the fire alarm and broadcasted a mayday over the VHF.

Everyone was assembled and accounted for. The burning cargo was in the forward part of the weather deck. The fire team was led by the Chief Officer. The fire was approached from the side walkways and from the stern on the weather deck. The sprinklers were also running. There were now flames as big as 30 meters high.

Several explosions occurred from fuel containers and jerrycans. The crew did fight the fire herically for a continues five hours until they had the fire under control. ■

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 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. How quickly can we get new charts onboard?

8. Would this loading have been in accordance with our procedures?

9. Do we use weather routing?

10. Do you believe weather routing would have assisted in this scenario?

11. How bad weather should it be for not allowing crew members on deck?

12. Are our fighting drills efficient enough to address the problems in this case?

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

14. How are near misses shared within the company?

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

Issues to be considered after the discussion

- The crew did fight the fire heroically and prevented the vessel from becoming a total loss.
- If there are concerns about the cargo being loaded it is better to discuss this in detail onboard, with the charterer and technical manager before accepting the cargo.
- The fire was most likely caused by sparks from the moving container which ignited the fuel that had leaked onto the weather deck from some of the jerrycans that were damaged.
- If the jerrycans had been stowed in a container it is likely that they would not have been damaged by the container and leaked fuel.
- If the vessel would have had charts for the inside passage this would have given the master more options.