Technician fell off pilot ladder and drowned

The bulk carrier, in ballast condition, was anchored outside an Asian port during the monsoon season. The plan was that four technicians would board the vessel and do some repairs to the main engine. The technicians boarded a small harbour tug to go out to the vessel. It was in the early morning and still dark. The weather was overcast with moderate winds. The crew had rigged the pilot ladder. The chief officer, bosun and an AB were standing by for the technicians. The pilot ladder was on the port side of the vessel about 2m above the waterline. The technicians were wearing inflatable lifejackets. The tug boat approached the bulk carrier from its starboard side.

The plan was for the technicians to disembark from the bow of the tug. The first technician climbed up the ladder without any problems. There was a slight swell, so it was important to time the climb up correctly. The second technician grabbed the pilot ladder but at the same time a big wave hit the tug. This caused the technician to lose his balance and grip and he fell into the water.

The AB on the tug shouted "Man overboard" and when the master on the tug heard this he reversed away from the vessel so the technician would not be crushed. The AB used a boat hook to try and grab the technician, but the technician was too far away. The tugboat's master informed the bridge on the bulk carrier about the MOB. It was difficult to see the man in the water because it was dark. The bulk carrier's master sounded the MOB alarm and the rescue boat crew assembled. The crew on the bulk carrier threw a lifebuoy towards the technician and released the MOB lifebuoys from the bridge.

The AB on the tugboat also threw a lifebuoy with a rope attached towards the technician which he manged to grab. It was apparent that the technician was struggling as the life jacket was pushing his head forward as it was positioned badly and seemed to be loose. The technician drifted towards the port side of the bulk carrier, but another wave slammed him into the bulk carrier's hull and unfortunately the technician hit his head. Because of this he lost his grip on the lifebuoy and started to drift away with his head under water.

About five minutes later the tug finally managed to recover the technician. It was too late as he was pronounced dead when he was taken to hospital.

The Danish authorities (DMAIB) have done tests on inflatable lifejackets. They found that it is common that the user can get confused about which straps go where, how to buckle and unbuckle the belt strap, and in particular how to tighten the straps. The belts and straps of an inflatable lifejacket need to be surprisingly tight to be effective when inflated, to a degree where the user feels restricted in moving and breathing freely. If the lifejacket is not strapped very tightly, its buoyancy tends to flip it upwards towards the wearer's face and neck. In water, this can cause the lifejacket to move to a position on the side or the back of the person's head and can push the head and face into the water.

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 incident?

2. Is there a risk that this could happen on our vessel?

3. What could you have done to prevent this?

4. Do we have instructions on how an inflatable life jacket should be used?

5. Do we have inflatable lifejackets onboard?

6. What are the requirements when people are boarding on the pilot ladder?

7. What are the requirements for an STS operation?

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

9. Do our SMS and SSP address these risks?

10. How could we improve our SMS to address these issues?

11. What do you think was the cause of this incident?

12. Is there any kind of training that we could take to address these issues?