

## SUMMARY

The cargo ship *Morraborg*, registered in the Netherlands, arrived to Holmsund harbor 3 July 2011 with a cargo consisting of parts for wind turbines. In connection with the mooring of the ship a spring line was thrown from the ship's starboard side. The ship was then maneuvered by running against the spring line with the rudder hard to port in order to get the stern closer to the quay. The spring line burst and sprung back in such a way that the rope hit the chief officer. He died of his injuries.

The accident has been investigated by the Swedish Accident Investigation Authority with the assistance of the Dutch Safety Board.

During the investigation it has been established e.g. that the shipping company, *Wagenborg Shipping BV*, has not identified mooring work as a hazardous work. This means that no risk analysis of the procedures for mooring work has been performed. Furthermore, the investigation has established that the work area on the mooring deck was not optimized in order to carry out the task in a satisfactory manner while maintaining safety for the crew.

At the time of the accident the master, an apprentice and a pilot were on the bridge. The exchange of information between them was insufficient and there were misunderstandings about certain maneuvers.

There was no visibility between the bridge and the forecastle, which resulted in the inability for the master to ascertain that the dangerous area on the forecastle had been evacuated when maneuvering the ship.

## Safety recommendations

Based on the facts and the conclusions drawn from the investigation SHK hereby recommends;

*Wagenborg Shipping BV* to make a more comprehensive risk analysis for mooring work at least taking into account:

- Strength and quality of mooring lines in relation to their operational use
- The potential need for tug boats to assist in mooring operations
- Scheduled inspection and maintenance of mooring lines and mooring equipment, including load test of winch manual band breaks.
- Position of winch control boxes taking into account potential snap back zones
- How to ensure the possibility to supervise the mooring operation from a safe position
- The need for operational procedures and proper communication
- How to ensure safe design of mooring stations on new built ships,

Based on the results of the analysis, establish an action plan to enhance mooring safety and take appropriate actions for existing and new built vessels. (RS 2014:03 R1)

*Sakhalin Shipping Company (SASCO)*, who is the present owner of the *Morraborg*, to undertake a risk analysis on mooring taking into account what is stated in (RS 2014:03 R1) for *Wagenborg shipping BV*, and establish an action plan to mitigate the particular risks associated with mooring operations of this vessel. (RS 2014:03 R2)

*Wagenborg Shipping BV* to review the functionality of the bridge remote control boxes on the sister ships of *Morraborg* and take any appropriate action to ensure their good operation and their use. (RS 2014:03 R3)

*Dutch mariners union, Dutch Shipowner association*, to consider a review issued mooring instructions with regard to the extent of snap back zones. (RS 2014:03 R4)

*Ministry of Infrastructure and the Environment of the Netherlands* to raise the issue of a legal requirement to save data from (S-)VDR in ships flying the flag of the nation. (RS 2014:03 R5)