



Maritime New Zealand Guidelines

SAFETY BULLETIN ISSUE 9 – 2007

April 2007

MANPOWER AND RESPONSIBILITIES DURING MOORING OPERATIONS

This safety bulletin is for:

- New Zealand flagged international vessels, passenger vessels and non-passenger vessels
- New Zealand shipping companies
- New Zealand port companies and stevedoring companies
- New Zealand harbourmasters and pilots
- Foreign flagged vessels visiting New Zealand ports.

Purpose

In 2006 a seaman was killed on a visiting foreign vessel during mooring operations. His death was caused by a mooring line bight as highlighted in *Safety Bulletin issue 8* also dated March 2007.

The purpose of this safety bulletin is to focus on two other issues that also contributed to this accident:

- manpower during mooring operations.
- duties of 'hazard watch and communications' during mooring operations.

Accident overview

The bow mooring team on board the vessel had been given the order to 'single up' the mooring lines (ie, reduce the number of mooring lines to a bare minimum of lines prior to casting off). The subsequent order from the bridge team to 'cast off' was issued before the 'singling up' order had been completed.

Not all these mooring lines had been recovered before the 'cast off' order was issued. The spring line, now also wet and under drag from the vessel movement, prevented the seaman from being able to lift the line onto the winch drum by himself. The responsible officer left his post on hazard watch to assist the seaman get the line over the drum.

Unknown to both the seaman and the officer the spring line end snagged on the underside of the quay. The seaman suffered fatal injuries as the bight he was standing in suddenly tightened and dragged him through the mooring bits.

Conclusion

On board mooring parties who are either undermanned or responding to unexpected situations are exposed to greater risk from operations owing to the physical demands of the job and the drop in safety awareness that accompanies heavy work.

The role of the responsible officer on supervisor/hazard watch is to provide constant hazard awareness and quayside observation to keep the team safe. This observation role is essential, both to protect the mooring party and to communicate warnings on developing hazards to the bridge team.

If the officer leaves this post for any reason the mooring party and the vessel are vulnerable to unseen hazards and their potential consequences.

Recommendations

- During mooring operations a sufficient number of personnel should always be available at each end of the vessel to ensure a safe operation.
- Where mooring lines are to be heaved onto a winch drum, one person should be stationed at the drum end, backed up by a second person backing and coiling down the slack.
- A responsible officer should be in charge of each of the mooring parties, and a suitable means of communication to the vessel's bridge team should be established. If VHF radios are used, then the ship's bridge and each group should be clearly identified by name to prevent confusion.
- Officers assigned to mooring parties, who have responsibilities for communication and hazard watch must at all times maintain these functions so as to protect the work parties they have been assigned to and provide timely communications to the Master / Pilot in the bridge team. These communications to the bridge team should include updates on the status of issued orders and any problems that are delaying normal completion.
- The stowage rate of mooring lines should be considered when assigning manpower to standard operations and to the timing of follow-on orders. Sufficient time must be allowed to complete one operation before the next order is issued.
- Where the workload increases and physically demanding work-rate is increased safety awareness levels, performance levels, co-ordination and reaction times drop. Any assigned responsible officer must maintain an awareness of these factors at all times and communicate any safety concerns to the bridge team immediately.

Further Information

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