



PEOPLE P 001
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Case studies for North of England Members

Tug and Tow Fatality

A 17,000 GT vessel was being manoeuvred off a berth assisted by three tugs. During manoeuvring the forward tug moved across the bow unexpectedly. The change in lead of the tow wire caused it to become taught against a stanchion, that broke and struck a seaman on the head, killing him instantly.

What happened?

One tug made fast alongside, one forward and one aft, all secured by tug's wires. The forward tug's tow wire was secured to a set of bitts on the port bow. An unusual configuration was used causing the wire to be led close to a stanchion.

On receiving instructions from the bridge team to let go the forward tug, the second officer directed two seamen to let it go when the tug's wire became slack. As the seamen approached the slackening tow wire with the intention of letting it go, the tug changed direction and moved across from the port bow to the starboard bow causing the wire to become taught against a vertical stanchion and detach it from the deck. It struck one of the seamen on the head killing him instantly.

Unknown to the mooring party the tug had experienced a power failure, lost control and drifted across the bow.

What lessons can we learn?

Risk Assessment

Mooring and towing operations should be carefully planned, and include an appropriate risk assessment. All involved should be fully briefed and reminded of the safety aspects. Briefings conducted prior to mooring operations provide an opportunity for senior officers to highlight specific risks that may be associated with a particular port or operation. Once these have been discussed, any control measures required to minimise the risk should be identified and put in place.

In this case an unusual configuration was used for leading the tug's wire from the fairlead to the bitts, taking it close to a stanchion. A risk assessment of this configuration should have highlighted the dangers of proximity of the tug's wire to deck fittings. Those supervising mooring stations should question deviations from the standard mooring plan and request clarification from the master or chief officer before taking further action.



Crew members must maintain a high level of vigilance during mooring operations. Potential dangerous areas, known as "snap back zones" should be identified prior to any mooring activity. These areas should be avoided while load exists on any rope or wire within this zone.

Those supervising mooring stations should be constantly vigilant, especially when making fast or letting go tug or mooring wires in order to keep crew members fully informed of potential dangers.

Communication

It is extremely important that communication systems used during mooring operations allow quick and clear dissemination of orders from the bridge team. This is particularly important when changes occur which affect the way the operation will be conducted. In this case no warning was received from the bridge team that the tug had lost power. When portable radios are the sole method of communication and are only used by key personnel, there can be a delay in orders being relayed to the remainder of the mooring party. Use of a loud speaker/talk-back system could provide early warning of any potentially hazardous situations.

The bridge team should not hesitate to advise a tug master to let go a tug wire using the tug's emergency release hook mechanism if a dangerous situation is developing. In determining when it may be appropriate for a tug master to detach himself from the tow, he should consider the safety of all of those involved in the operation. The power failure could have resulted in a girting incident as well as the fatality on the ship.

WHAT DO THE REGULATIONS SAY? 

Which regulations provide guidance?

ISM

Section 7 – Development of Plans for Shipboard Operations – requires that the Company establish procedures for the preparation of plans and instructions, including checklists for key shipboard operations. Mooring and towing operations would be such a key operation.

COSWP

Specific guidelines on anchoring, mooring and towing operations can be found in Chapter 25 of the "Code of Safe Working Practices for Merchant Seamen" published by the Maritime and Coastguard Agency on behalf of the United Kingdom government. These include reference to "snap back zones".

STCW

The STCW Code competence standards outlined in Table A – II /2 require masters and mates to be proficient in berthing and unberthing in various conditions involving wind, tide, with and without tugs, ship and tug interaction.

MGN

Marine Guidance Note (MGN) 308 – Mooring, Towing or Hauling Equipment on All Vessels – Safe Installation and Safe Operation – published by the United Kingdom Maritime and Coastguard Agency, contains guidance about working with tugs. This includes guidance on communications, safety of personnel, and using positions of safety to avoid "snap back zones".

Your experiences

If you have had an experience that would be useful to share as a Signals Experience on an anonymous basis please contact the Risk Management Department and let us know.

Previous experiences

Previous Signal Experiences can be viewed and downloaded from the Risk Management pages of the North of England website.

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