Focus: Incidents during Mooring and Cargo Handling

In this safety flash we cover three mooring incidents and an incident during cargo operations. In three of the incidents, no-one ‘stopped the job’ when working conditions had become unsafe. Readers are reminded of IMCA’s guidance material as follows:

- **IMCA SEL 029** – Mooring practice safety guidance for offshore vessels when alongside in ports and harbours;
- **IMCA SEL 032** – Guidance on safety in shipyards.

IMCA also provides a wide range of safety promotional material including pocket cards, posters and DVDs on topics such as mooring, toolbox talks, risk assessment, permit to work, and hazard identification, which can be found [here](#).

1 Vessel in Collision with Floating Dock

A member has reported an incident in which a multi-purpose support vessel (MPSV) made contact with a section of a floating dock and buckled a steel fender and the main deck forward centre of the dock. The incident occurred as the MPSV was being towed by two tugs (one forward, one aft) to a graving dock.

As the vessel was proceeding towards the dock, the dock master was contacted by the pilot with a request to send two working boats to meet the MPSV, to replace the forward tug. The dock master disagreed with this, as the local arrangements were that working boats were only to assist towing around 200m from the dry dock. The forward tug disconnected and sailed away without prior notification. Efforts made by the pilot to communicate with the master of the forward tug were not successful. The master of the aft tug refused to reposition to push the MPSV from its starboard side, as they were informed that the water was too shallow (8m depth). Thereafter, the vessel drifted to starboard towards the floating dock, collided with it and caused material damage. There were no injuries.
Our members’ investigation revealed the following:

- A plan was in place to tow the MPSV to a graving dock. The tugs did not arrive as planned and were late. When the first pilot arrived on board, he refused to engage tugs due to the condition of the vessel at the time – only the emergency engines were running;
- The vessels forward and aft thrusters were non-operational due to ongoing repairs;
- The deck crew and officers carried out a toolbox talk as well as a risk assessment on towing, mooring and unmooring operations;
- The MPSV was docked starboard side to quay, before delivery to the dockyard;
- The pilot was informed about the status of the MPSV. He assured the crew that ‘he was familiar with the dockyard operations, and that the proposed delivery will be carried out successfully’.

Our member made the following recommendations:

- Better and more comprehensive risk assessment for docking operations;
- ‘Stop work authority’ should be implemented and enforced on board if any task is perceived to be unsafe;
- Pre-task planning meeting with all work parties should be mandatory before start of towing/docking tasks.

Members may find it helpful to further consider the relationships between different working parties in shipyards, as discussed in IMCA SEL 032 – Guidance on safety in shipyards.

2 Damage to Hand Rails during Mooring Operations

A member has reported a minor vessel collision resulting in damage to hand rails. The incident occurred during mooring operations between a vessel and a barge for the purposes of transferring a passenger to the barge. The vessel started side by side mooring operations and, when approaching the barge, the bow of the vessel came into contact with the hand rails on the barge causing slight damage.

Our member noted the following:

- The barge master gave permission for mooring alongside the barge without having any Yokohama fenders in place;
- The vessel bridge team did not identify this and continued with mooring – no-one stopped the job.

Members may wish to refer to the following incident (search word: mooring):

- IMCA SF 07/15 – Incident 4 – Minor damage to pontoon cleat during Crew Transfer Vessel Mooring Operations.
3 Equipment Damaged during Cargo Operations

A member has reported an incident in which a filled drilling cutting box (DCB) was punctured during transfer onto the deck of a supply vessel. The DCB was damaged, with the side being punctured from a protruding angle iron bracket on an adjacent container. The DCB contained sand and an amount of oily water. The supply vessel Master decided to backload the container onto the platform and, upon lifting it, the oily water spilled out from the punctured area. This resulted in a minor spillage onto deck.

![Showing punctured area of the DCB (circled)](image1)

![Showing minor spillage on the deck](image2)

Our member noted the following:

- There was inadequate risk assessment for the emergency response to the spillage;
- There was no consideration given to potential release of oily water to the deck prior to backloading;
- Returning the container to the platform was against company procedures which state: “The vessel Master is responsible for the safe and correct loading of his vessel and should liaise with the OIM (client representative on the installation) to ensure that the vessel is loaded correctly. The master should notify the OIM of defective lifts and return these to the installation only if it is safe to do so”;
- No-one stopped the job.

The main lessons identified were:

- The Master has overriding authority to make decisions on the vessel; his action in this particular case, should have been to arrange sealing of the punctured area of the DCB with suitable materials to prevent further spillage to deck;
- Better communications between the Master and platform Offshore Installation Manager (OIM) should have been in place.

Members may wish to refer to the following incident (search word: cargo):

- IMCA SF 15/15 – Incident 3 – Spillage of methanol during cargo operations.

4 Mooring Near Miss: Lines Break during Un-Docking Operation

The Danish safety organisation Seahealth.dk has circulated a near miss incident in which lines parted during undocking operations. A vessel’s mooring lines (double braided synthetic fibre rope 65mm) were used as tug lines (two lines connected to one tug). When the vessel dropped off all the lines from the berth, the tug started pulling the vessel. After about three minutes the two lines parted. There were no crew standing in the area where the tug line was connected. There were no injuries and no damage to the vessel except for the two failed mooring lines.

It will be understood that the potential consequence of this incident could have been a fatality.
Investigation revealed that the mooring ropes bore no sign of damage prior to the incident, and had been in operation since delivery of the vessel in 2005. The same vessel had seven other mooring lines in use of that age.

Members may wish to refer to the following:

- Safety Flash – SF 04-09 – Incident 3 – *Mooring incidents* from the UK P&I Club;
- IMCA Safety Poster – SPP 12 – *Mooring safety*;
- IMCA DVD – SEL 038 – *Mooring*. 