

IMCA Safety Flash 24/20

August 2020

These flashes summarise key safety matters and incidents, allowing wider dissemination of lessons learnt from them. The information below has been provided in good faith by members and should be reviewed individually by recipients, who will determine its relevance to their own operations.

The effectiveness of the IMCA safety flash system depends on receiving reports from members in order to pass on information and avoid repeat incidents. Please consider adding the IMCA secretariat (imca@imca-int.com) to your internal distribution list for safety alerts and/or manually submitting information on specific incidents you consider may be relevant. All information will be anonymised or sanitised, as appropriate.

A number of other organisations issue safety flashes and similar documents which may be of interest to IMCA members. Where these are particularly relevant, these may be summarised or highlighted here. Links to known relevant websites are provided at www.imca-int.com/links Additional links should be submitted to info@imca-int.com

Any actions, lessons learnt, recommendations and suggestions in IMCA safety flashes are generated by the submitting organisation. IMCA safety flashes provide, in good faith, safety information for the benefit of members and do not necessarily constitute IMCA guidance, nor represent the official view of the Association or its members.

1 Hull damage caused oil leakage from settling tank

**Applicable
Life Saving
Rule:**



Bypassing
Safety
Controls

What happened?

On a member’s vessel, the starboard forward Marine Gas Oil (MGO) settling tank was punctured during berthing operations. The vessel was requested to move berth about 150 metres to accommodate port activities. The manoeuvre was conducted from the bridge wing, providing maximum visibility of the operation. As the vessel mooring ropes were being worked, liquid was observed leaking from 1.5m above the water line on the starboard side.

As the vessel was berthing a section of missing fendering, just aft of the bow, was contacted and the hull punctured into the starboard forward fuel tank.



Berthing movement at Core Base



Fendering arrangement as expected



Missing fendering at berth



Divers magnet used to minimize spill

What were the causes? What went wrong?

- ◆ The maintenance operations underway at the port had not been communicated to the vessel before starting the berthing manoeuvres, and the Master was unaware of the missing section of protective fendering;
- ◆ The vessel was operating with restricted personnel access to the quayside due to COVID-19 health controls. Also, the Marine crew did not possess the permissions required by the country legislation for access to secure areas of the base. These constraints prevented any potential observations of missing fenders from the jetty;

- ◆ The Task Risk Assessment (TRA) for the mooring task had been reviewed recently by the Master and the Bridge Team with reference to internal procedures and industry good practice. The consideration of damage to the hull/structure had not been considered within this review.

Lessons learned

- ◆ Ensure that accurate, appropriate and sufficient information is delivered to the people making the decisions;
- ◆ Review task risk assessment for berthing to ensure hazards are fully considered and controlled;
- ◆ Whilst crew restrictions restrict quayside access, consider additional shoreside support as available;
- ◆ Must outboard tanks be used? Consider where possible alternative inboard arrangements for settling tanks and other tanks with potential pollutants;
- ◆ Ensure ongoing review and update of the Shipboard Marine Pollution Emergency Plan following drills and exercises.

Members may wish to refer to

- ◆ [Vessel In Collision With Floating Dock](#)

2 Safe Embarkation and disembarkation of Marine Pilots

What happened?

During the embarkation of the Pilot to the vessel, the Pilot observed that a step on the Pilot ladder was not in good condition (broken). The Pilot implemented the **Stop Work Policy** and informed the Master of the vessel, noting that the Pilot ladder would need changing before he would embark. The pilot ladder was subsequently replaced and the pilot boarded the vessel.

**Applicable
Life Saving
Rule:**



Bypassing
Safety
Controls



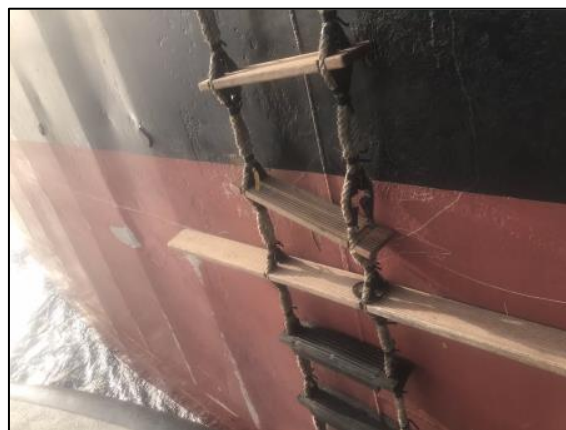
Working
at Height

What were the causes? What went wrong?

The Pilot ladder was not in good condition. It had not been inspected before it was put in place by the vessel crew.

Members are reminded to ensure that:

- ◆ The technical specification of pilot ladders meets **IMO requirements as per Resolution A.1045(27)**;
- ◆ Persons ordering or sourcing new pilot ladders should **clearly know the IMO requirements** and should specify to suppliers that every step on the ladder should be free of knots;
- ◆ New pilot ladders are **thoroughly checked before use** to verify quality and to ensure that the steps are clear from knots;
- ◆ Pilot ladders are **always checked by the officer in charge** before rigging and use to ensure it is fit for purpose, in good condition and secured properly to the vessel.



Members may wish to refer to the following incidents:

- ◆ [Pilot Ladder Requirements](#)
- ◆ [OCIMF: Pilot Ladder Side Rope Failure: Unsafe Pilot Transfer](#)
- ◆ [Pilot Ladder Safety](#)
- ◆ [Near Miss: Pilot Ladder Failure](#)

The following documents will be useful:

- ◆ [SOLAS Regulation 23 on Pilot Transfer Arrangements](#)

- ◆ International Chamber of Shipping (ICS) *Shipping Industry Guidance on Pilot Transfer Arrangements - Ensuring Compliance with SOLAS*
- ◆ IMO Resolution A.1045(27) Pilot Transfer Arrangements

3 Near miss: Incorrectly set lifeboat hook

What happened?

During a routine launch and recovery drill, the lifeboat crew became concerned that the forward hook was not engaging correctly despite the 'padlock' symbol indicating correct closure.

With the lifeboat in the water the crew had experienced some difficulty in releasing the hook and the hook release mechanism was operated several times before it finally released. Prior to lifeboat recovery, the coxswain became concerned that the forward hook was not correctly aligned and an all-stop was called to investigate the situation.

Site management assessed the launch and recovery system and it was decided the boat could be lifted safely back on board, as per the original task plan, with confirmation that both hooks were secure. The lifeboat was recovered without incident.



The misaligned forward hook with 'padlock symbol'.



Forward hook after realignment with 'padlock symbol' moved to correctly show safe condition.



Locked position (0°)



Full travel position (80°)

The cam on the release hook rotates approximately 80° between the closed and fully released position. The hook is designed to release at 55°. At full travel, the cam had rotated too far and blocked the hook from being released.

What were the causes? What went wrong?

The following findings were made:

- ◆ The alignment of the cast plate was also aligned differently to all other hooks. The padlock symbol indicated the hook was correctly closed when it was not;

- ◆ The 'padlock symbol' was not mounted at the edge of the quadrant as the other hooks on board were;
- ◆ The mechanism was incorrectly assembled with the forward 'Duplex-E Hook' locking mechanism misaligned;
- ◆ The forward hook was incorrectly set to release at 35° instead of 55° as required by the manufacturer;
- ◆ Previous records made no reference to any alterations being made to the system and it could therefore not be established when the incorrect alignment occurred;
- ◆ No damage to any components was found; no components needed to be replaced;
- ◆ The forward hook required adjustment to release at the correct setting of 55°;
- ◆ Once the cam had been realigned to release at 55°, the 'padlock symbol' was moved to correctly indicate that the hooks were closed.

Actions

Our member took the following actions:

- ◆ Confirmed and checked the hook settings of all lifeboats, and fully investigated any unexpected difficulties with release mechanisms;
- ◆ Ensured that third-party contractors servicing lifeboat hooks are properly qualified and approved;
- ◆ Reiterated the importance of always following the manufacturer's instructions and company procedures for maintenance-related launch and recovery of small boats/lifeboats;
- ◆ Communicated that lifeboat that do not show the correct setting of the hooks should not be used.

Members may wish to refer to

- ◆ [Failure Of Lifeboat Release Hook Mechanism](#)
- ◆ [High Potential Near-Miss: Failure Of Lifeboat Release Hook Mechanism](#)
- ◆ [Unplanned Deployment Of Free Fall Lifeboat](#)

4 Positive: STOP WORK by Master challenging Sailing Order

What happened?

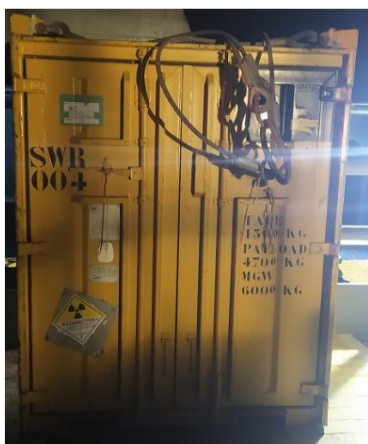
A Platform Supply Vessel (PSV) received sailing orders. All the cargo, with the exception of one item, was for one platform; the exception was a radioactive container for a second platform.

Local dangerous goods transportation procedures and regulatory requirement mandated that radioactive cargo must be loaded to the vessel as the last cargo and dispatched first at the highest priority. The Master challenged the sailing order for that reason, but this was rejected by the client's logistics department. The issue was escalated to company vessel management, who fully supported the Master in the change to sailing orders to satisfy the local Dangerous Goods transfer priorities.

Applicable
Life Saving
Rule:



Bypassing
Safety
Controls



Deck	Bay	Container No.	Weight (KG)	Remarks
13				
12				
11				
10				
9				
8				
7				
6				
5				
4				
3				
2				
1				

What went RIGHT?

- ◆ The Master exercised STOP WORK AUTHORITY and insisted the company's clients change the sailing order to allow for safe, appropriate and legal transfer and dispatch of the radioactive cargo;
- ◆ The client and the company management actively collaborated and supported the Master in achieving a positive outcome.

5 Near miss/positive: internal O-ring seal found damaged on fuel system

What happened?

In a vessel alongside, a new fuel gas cylinder was connected to a gas-powered forklift truck. When the delivery valve was opened gas leaked from the connection between the cylinder and the hose. The cylinder was removed and the internal O-ring seal was found to be damaged.

Applicable
Life Saving
Rule:



Bypassing
Safety
Controls



Small LPG-powered fork-lift truck



Tank valve and fuel line



Internal O-ring

A replacement cylinder was brought to the forklift but before fitting it the crew member checked the condition of the O-ring and found that it too was damaged. Fortunately, a number of full spares are carried on board and one was found that was in good condition.

The two cylinders with faulty O-rings were returned to the supplier for fitment of the correct O-rings. The branch manager of the gas supply company was alerted to the incident. He was most concerned that the cylinders were delivered to a customer without proper examination of the O-rings. They took this as a serious quality control issue and apologised for the occurrence, eventually tracing the batch of refills to a particular time, place and person.

What went right?

- ◆ Supplier was able to remedy a quality control issue;
- ◆ The two faulty cylinders were exchanged before the vessel sailed (after which time return and exchange would not be possible and cargo operations could have been jeopardised).
- ◆ Crew became aware that the fact that the gas cylinder was full did not guarantee it was in proper safe condition. They checked.

Recommendations

- ◆ Closely examine exchanged or pre-used equipment for proper condition, especially where potentially hazardous materials or stored energy is concerned. **It always pays to check.**
- ◆ O-ring seals are small but vitally important components which should be treated with the greatest of respect.

Members may wish to refer to

- ◆ [Diving Bell TUP O-Ring Seal Damage](#)

- ◆ Dangerous Modifications found within a gas valve unit room [US Coast Guard – an O-ring damaged on replacement]