

IMCA Safety Flashes summarise key safety matters and incidents, allowing lessons to be more easily learnt for the benefit of all. The effectiveness of the IMCA Safety Flash system depends on Members sharing information and so avoiding repeat incidents. Please consider adding safetyreports@imca-int.com to your internal distribution list for safety alerts or manually submitting information on incidents you consider may be relevant. All information is anonymised or sanitised, as appropriate.

1 Fatality: person crushed when secured material fell on him

Stored metal plates fell on a crewman causing fatal injuries. This incident has been shared with one of our members by a client company, and is public domain news. The incident does not involve an IMCA member.

Third-party sub-contractors on a vessel were inspecting a sling that was wrapped around five metal plates. The plates were situated on two pieces of wood, positioned lengthwise on their edge and against a stanchion on the deck. The plates were secured to the stanchion by a ratchet strap. One crewman was trying to access a sling that was wrapped around the plates, so he instructed his co-worker to loosen the ratchet strap. When he gave the instruction, he was standing next to the plates. The co-worker followed the instruction and loosened the ratchet strap, which resulted in the plates falling toward the first person and pinning him against another storage rack on the riser deck. Several people ran to the scene immediately upon hearing calls for help, but the plates were too heavy for them to lift.

The incident is still under investigation. Interim recommendations are:

- Evaluate stored equipment and materials to minimize hazards related to stored energy and handling;
- Discuss the importance of hazard identification in the task planning process and using Time Out for Safety to manage changes in the work environment.

IMCA notes: this was an absolutely preventable and foreseeable incident. Please take time out to inspect any similar storage arrangements at your sites and ensure adequate controls are in place to prevent the same event happening.

Please review the following:

- [Secured material fell against crewman causing injury \[January 2021, exact same issue\]](#)
- [Crewman injured when steel plates fell against him \[December 2011, exact same incident but with different causes\]](#)
- [Unsecured object fell and injured crewman](#)

Applicable
Life Saving
Rule(s)



Line of Fire



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2 Crane wire parted during offshore operations

What happened?

A concrete mattress was being deployed as part of the construction of a pipeline crossing. As the load was swung outboard and before it entered the water, the crane wire parted causing the load to fall to the seabed. The vessel was in a safe handling zone more than 5m from subsea assets. The mattress was overboarded when the crane was 17m from the nearest subsea asset.

The vessel's main crane was being used to overboard a 6m x 3m x 0.5m concrete mattress, (15.8Te) + lifting frame (1.7Te). Mattress number 6 was deployed in a series of 15, as part of the crossing construction. The crossing was being built to allow a new pipeline to be laid which passed over a buried 3rd party gas pipeline.

During the lift, the load was swung outboard and before it entered the water, the crane wire parted causing the load to fall to the seabed. The mattress and lifting frame were found 6m away from the buried gas pipeline.

Findings – what went wrong

Procedures were not followed, and decisions were made without having the full facts or understanding of operations.

- The vessel main crane was in use during the period following the Magnetic Rope Testing (MRT) when the results were still being evaluated. The test results stated a clear recommendation to cut back the wire;
- The operational limit was set on using 30% of the crane capacity. There was a misunderstanding that the Safe Working Load (SWL) of the crane wire was 60Te;
- There was no process within the company's Wire Rope Integrity Management Procedure that provided an option for application of an operational limit to deteriorating wires;
- No management of change process was applied to control the application and understanding of an operational limit, this may have triggered the involvement of the company's lifting experts ashore;
- No-one on the vessel questioned the operational limit, how it should be interpreted or how it applied to the crane load charts;
- There was no communication of the crane operational limits to the project team, subsequently this was not included in the worksite risk assessment review for the mobilisation and offshore operations.

Actions

- Ensure full communication and engagement between shore-side experts and management on the one hand, and vessel team on the other;
- Any dispensation for wire ropes should be recorded in planned maintenance systems;
- Ensure that mattresses are moved into position from a direction that prevents the mattress being lifted over existing pipelines;
- Reinforce the requirements for the consistent application of the management of change, and technical management of change.

Members may wish to refer to

- [Catastrophic failure of vessel main crane wire](#)

Applicable
Life Saving
Rule(s)



Bypassing
Safety
Controls



Safe
Mechanical
Lifting



The moment the crane wire parted causing the load to fall to the sea



Parted wire frayed end

- [Parting of a crane lift wire](#)
- [ROV main lift umbilical failure](#)
- HSSE 019 *Guidelines for lifting operations*
- HSSE 022 *Guidance on wire rope integrity management for vessels in the offshore industry*

3 Tumble dryer fire: lint ignition

What happened?

Accumulated lint trapped inside an industrial tumble dryer onboard a member's vessel, overheated and ignited. Whilst working in the vessel laundry a steward smelt burning coming from one of the three tumble driers. The steward stopped the dryer immediately, removed the contents and observed a flame coming through from the base of the rotating drum. He extinguished the fire with a portable fire extinguisher and immediately notified the bridge.

The other dryers in the laundry were subsequently isolated to inspect their filters which were found to be clean. A small amount of scorched lint was found trapped between the drum and the drum casing in the dryer: this lint had ignited. The gap between the drum and casing of the two other dryers was found to be clean.



Action and lessons learned

Our member drew some key lessons learned and preventive measures from this event:

- Confirm that everyone understands that they should raise the alarm *before* attempting to tackle a fire;
- Systems for fire prevention, detection, protection and extinguishing, should be communicated to all crew during vessel inductions and that information regularly reinforced thereafter;
- A review of manufacturer's user guides to support operation and planned maintenance of tumble dryers – assessing where appropriate additional measures required to reduce the risk arising from operational use;
- Take extra care when assessing the condition of filters within tumble dryers – it is more difficult to identify any passing or obstructions beyond filters;
- Ensure that the design of the tumble dryer filters, drums and exhaust ducting enable sufficient access to allow for cleaning and removal of build-up of material;
- Ensure all personnel are familiar with operations, maintenance and emergency procedures for equipment and machinery they are operating.

IMCA notes: tumble dryer fires have potentially very serious consequences, particularly in a ship. Please review the following incidents:

- [Smouldering fire in tumble dryer](#) (2020)
- [Auto-ignition of laundry items](#) (2018)
- [Fire: Spontaneous combustion of towels](#) (2016)

- [Near-miss: Laundry fire hazards](#) (2016)
- [Tumble dryer fire onboard a vessel](#) (2009)

Members may wish to refer to *IMCA M 119 Fires in DP vessel spaces*

4 Electric shock due to water in electrical equipment

What happened

There was an uncontrolled spraying of fresh water from a sounding pipe in the galley, resulting in electrical equipment getting wet. As a result someone got an electric shock. The incident occurred during fresh water supply to a vessel, when the sounding pipe cap (located on the floor in the vessel galley) did not withstand the pressure, and so water sprayed out into the galley and onto the electrical stoves and deep fat fryer.

The flow of water was stopped and spilled water was mopped up, and the catering team continued to work. However, it appeared that water had penetrated the electrical circuitry of the deep fat fryer, and the steward received a mains electrical shock. This was reported, and the electrical equipment isolated. The steward was not harmed.

What were the causes?

- No-one had assessed the risks of a large volume of water spilling into the galley from the freshwater tank sounding pipes, nor considered the potential contact with electrical equipment;
- Drainage of the spilled water was delayed because the catering staff usually kept drainage system scuppers closed in the galley because of the smell coming out of the drainage system.

The actions

- The drainage system in the galley should be always kept open;
- Review, revise and update risk assessments as related to potential water flooding from the freshwater tank sounding pipes;
- Ensure the catering crew are kept informed of relevant inspection and maintenance requirements for their equipment.

Members may wish to refer to:



- [Galley electric shock – uncontrolled portable electrical equipment](#)
- [Huge leak discovered in fresh water system](#)

5 MSF: Air cylinder failure in lifeboat

What happened

There was a structural failure of an air cylinder fitted in a lifeboat. It occurred without warning. No work had or was being conducted on or around the air cylinder. Three crew members working nearby were injured by the blast debris.

First aid treatment was provided onboard by the medic and they were then sent onshore that night for assessment by a local hospital, and later released.

Applicable Life Saving Rule(s)		
	Bypassing Safety Controls	Energy Isolation



Location of sounding pipe cap



Electrical stove and deep fryer



What was the cause?

The MSF notes that investigation into this incident is currently ongoing. This event – which occurred in July 2020 - was first brought to IMCA’s attention last year. At that time there was insufficient information available to warrant its use in a Safety Flash. See here for the [MSF Safety Alert 21-01](#).

Two preliminary suspected causes of the cylinder failure have been identified:

- Galvanic corrosion between the cylinder material and the metal support frame leading to a weakness in the cylinder wall;
- Cylinders submerged in bilge water for extended period leading to wall corrosion which could have then affected the integrity.

Action

The MSF’s correspondent recommends that such cylinders are:

- Inspected annually for corrosion or wall damage by service providers;
- Hydrostatic [pressure] tested at a required interval of five years.

Members may wish to review also:

- [BSEE: Failure of Crane Hydraulic Boom Cylinders](#)
- [Failure of fire extinguishers owing to corrosion](#)
- [Life raft self-activates and falls to the quayside \[cause: gas cylinder was not properly serviced by a third-party service provider\]](#)

