
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 American P&I Club: unfamiliarity with semi-portable fire extinguishers

As part of its [Good Catch](#) for Seafarers safety guidance, the American P&I Club has published an [alert](#) which highlights the importance of familiarity with fire-fighting equipment.

What happened?

A generator in a ship underway experienced a catastrophic failure, resulting in a fire in the bilges. The two engineers in the engine room heard a loud bang, investigated and saw the fire. The senior engineer saw the fire was in the bilges and knew that the semi-portable foam fire extinguisher was appropriate to use. He sent the junior engineer to it with instructions to activate it and use it to fight the fire.

The junior engineer was unfamiliar with the operation of the semi-portable foam fire extinguisher and did not really know how to operate it. The delay of several minutes thus caused, allowed fire and smoke to spread. The engineers were forced to evacuate. The bridge sounded the general alarm and the crew were mustered. Once the engineers were accounted for, the engine room was isolated and the fixed CO₂ system was triggered to put out the fire.

The fire caused damage in excess of US\$250,000. Had the fire been quickly extinguished, the damage would have been substantially less.

What went wrong?

- The junior engineer admitted he was not familiar with how to use that specific semi-portable fire extinguisher;
- The junior engineer became confused in the tension created by the emergency situation;
- The junior engineer indicated the fire extinguisher was different from others that he had been trained to use;
- The senior engineer and the Chief Engineer assumed the junior engineer knew how to operate that particular semi-portable foam extinguisher since he was an experienced mariner.

What went right?

The effectiveness of the crew in isolating the engine room by stopping the ventilation and closing all the vents and doors enabled the fixed CO₂ system to work as designed and extinguish the fire. Their training, experience and actions prevented further damage that could have significantly exceeded the actual damage and could have jeopardized the vessel itself.



What are the lessons learned?

- Ensure crew members are properly trained and ensure they are familiar with the **specific** fire extinguishers and fire extinguishing systems on the vessel;
- Hold frequent training and drills to ensure that the excitement and adrenaline surge that happens during an emergency do not lead to delays or prevent appropriate actions from being taken.

Members may wish to refer to:

- [Catering crew unfamiliar with firefighting systems and emergency stops](#)
- [US Coast Guard Safety Alert 07/17 – CO₂ hazards](#) [*“The crew were unfamiliar with the vessel’s systems and had not referred to the associated manuals.”*]
- [Learning outcomes from a real time diver recovery](#) [*reiterating the importance of drills*]
- [And finishing on a positive note: A CPR success story – “we saved a life that day”](#) [*“To be successful in any emergency, **training and drills** are key.”*]

2 Lifejacket battery caught fire

What happened?

During an inspection on a vessel in cold lay-up, the lifejackets stored underneath a sitting bench in the wheelhouse were found burned and melted. No-one was harmed; apart from the jackets, nothing was damaged.



Burned lifejackets



The lamp used in the lifejackets



Lalizas 71209 lamp of lifejacket

What went wrong?

A Lithium battery (3.6v) had exploded in one of the self-igniting lights. As the bench was in a properly closed position, without any gaps, the fire could not spread due to a lack of oxygen. Therefore the fire was not detected and did not activate a fire alarm, as the smoke was contained inside the storage compartment. Investigation showed that the battery of the “Lalizas 71209” life jacket light had expired five months earlier.

A possible cause could be that this battery was exposed to moisture before the lay-up period and water ingress affected the battery content after the lifejacket was put back in storage.

Lessons and actions

- Store such equipment in a secure, dry and cool place away from flammable materials;
- Keep batteries of any kind away from metal objects to avoid short circuit between the terminals;
- Lithium batteries in your work place:
 - Assess where Lithium batteries are present and check, if possible, the condition of the battery and cover;
 - Verify the expiry date of the battery;

- Regularly inspect batteries of lifejacket lights and other devices like radios as per planned maintenance schedule;
- If batteries are expired or damaged, remove them and dispose of them properly;
- For laid-up vessels, it may be appropriate to consider whether or not to remove Lithium batteries and other hazardous materials from vessels before going onto lay-up.

Members may wish to refer to:

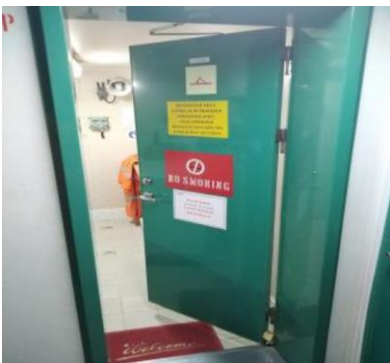
- [Lithium batteries: Fire following the failure of a helicopter start power unit](#)
- [LTI: Severe burn from short circuited Li-Ion battery](#)
- [PP3 9V battery explosion](#)
- [Potential engine room flooding: maintenance and equipment failure issues on a laid-up vessel](#)
- [For want of a watchman the ship was lost \[a ship in lay-up burnt down\]](#)

3 Fire door left wedged open

What happened

During a routine visit to a vessel in port, it was noticed that the Class A fire door for the laundry was intentionally wedged open with a wooden block.

Investigation revealed that the crew working in the laundry room had to wedge the door open to get the job done, but when the job was complete, the door wedge was left in place.



What went wrong

- There was no thorough risk assessment nor toolbox talk carried out; it had not been identified that the door had to be wedged open.
- The site was not inspected once the job was completed – the fire door was left wedged open.

Actions

- If any safety systems need to be deactivated or disabled for the purpose of a job or task, this should be clearly noted and discussed in the risk assessment, and control measures applied accordingly;
- Job sites should be inspected once all work is completed to ensure that all deactivated or disabled safety systems are restored and working properly;
- IMCA notes that consideration ought be given at the design stage to ensuring that jobs and tasks, so far as is reasonably practicable, can be undertaken without deactivating or disabling safety controls.

Members may wish to refer to:

- [Incidents relating to hatches and doors](#)
- [Only a centimetre – an emergency exit hatch blocked by mooring ropes](#)

4 UK HSE: uncontrolled movement of fabrication caused injury

The UK Health and Safety Executive (HSE) has prosecuted an engineering company after an employee sustained life-changing injuries whilst welding an industrial steel fabrication. [Press release here](#).

What happened

A worker was undertaking work to fabricate and weld dolphin jackets, devices which are secured to the seabed and used for mooring boats. A dolphin jacket, which weighed approximately 7.7 tonnes, moved in an uncontrollable manner trapping him and crushing his feet. Half of his left foot was severed in the incident and a further portion had to be surgically amputated. His right foot could not be saved and was later surgically removed below his right knee to enable a prosthetic limb to be fitted.

What went wrong

HSE investigation found that:

- There were no written risk assessments nor work method statements for the task;
- A method was devised by the workers to move the dolphins into position and secure them, using a combination of forklift trucks and temporary steel supports, but this method failed;
- While the company may have had significant confidence in their employees' abilities, it remained the company's responsibility to ensure work was carried out in a safe manner at all times.

The inspector noted *"Those in control of work procedures have a responsibility to devise safe methods of working and to provide the necessary information, instruction and training to their workers to ensure the safe system of working. If a suitable safe system of work had been in place prior to the incident, the life changing injuries sustained by the employee could have been prevented."*

Members may wish to refer to:

- [Hand injury from falling object during lifting operations](#)
- [Near miss: uncontrolled movement of mooring chain](#)
- [High potential near miss – unsecured sheave](#)
- [Uncontrolled movement of a riser](#)

5 LTI: person fell down hatch inside crane pedestal

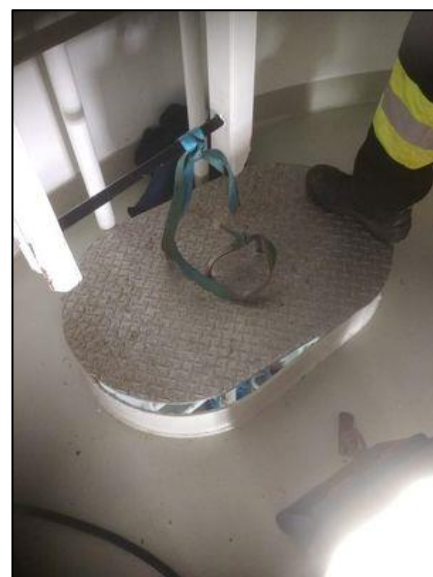
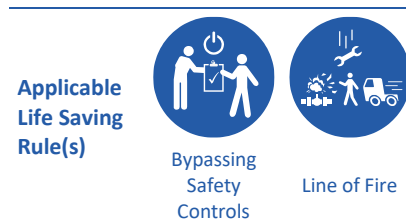
What happened?

Two service engineers were performing an inspection inside an offshore crane pedestal. Inside, there was a ladder running the full height of the crane pedestal, with a hatch on the middle level of the pedestal. The first person went down the ladder, and unintentionally shifted the hatch cover into such a position, that when the second person went down the ladder and stepped onto the hatch cover that had shifted, it caused the hatch cover to tip over and fall to the room below. As a result the second service engineer fell through the hatch.

The engineer hurt his foot and back and had to rest for some weeks, although nothing was broken – only bruising.

What went wrong

- The hatch cover shifted slightly out of position;



- There was a lack of awareness when entering crane pedestal.

What was the cause?

- Poor hatch cover design – cover not secured. It ought to not have been possible to leave the loose hatch in such a position.

Lessons/actions

- Test and check – in this case the cover plate was never fully tested to ensure sure it was safe for unintentional shifting when persons might step on the edges;
- Look for similar hatches - ensure all hatch covers are properly designed and secure to prevent unintentional opening or shifting.

Members may wish to refer to:

- LTI: step into open deck hatch causes fall
- LTI: engineer injured following engine room slip/trip
- Near miss – grating dislodged and fell, leading to crewman slipping
- Lost time injury (LTI): loose grating fell from crane, a man fell through and was injured
- Dropped object fell from crane – Poor communication/lack of awareness/control of work