

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](mailto: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 MAIB: Fatal accident during cargo operations on *Karina C*

The UK Marine Accident Investigation Branch (MAIB) has published its investigation report into a fatal crush incident during lifting operations on the general cargo vessel *Karina C* on 24 May 2019. See here for details: [www.gov.uk/government/news/karina-c-report-published](http://www.gov.uk/government/news/karina-c-report-published).

### What happened

The second officer of the general cargo vessel *Karina C* was fatally injured when he was crushed between the vessel's gantry crane and a stack of cargo hold hatch covers during post-cargo loading operations. The second officer had been working at the aft end of the main deck and was attempting to pass between the hatch covers and the stationary crane. As the second officer climbed onto the hatch coaming, the vessel's chief officer drove the crane aft, trapping and crushing the second officer against the hatch covers. The chief officer immediately reversed the crane and the second officer fell onto the deck, where he received first-aid and cardiopulmonary resuscitation from the deck crew and shore paramedics.



Applicable  
Life Saving  
Rule(s)



Bypassing  
Safety  
Controls



Line of Fire

An emergency services doctor, who was informed that the second officer had fallen from the hatch coaming onto the deck, told the crew that the second officer probably died after having a heart attack. Based on the doctor's initial assumption and the evidence provided by the vessel's crew, the accident was not reported to the MAIB. Only following receipt of the second officer's postmortem report and close examination of *Karina C*'s closed-circuit television recordings was the incident reported by the vessel management to the MAIB. The accident occurred on the second officer's birthday and the postmortem toxicology report showed that he had a significant quantity of alcohol in his bloodstream.

### What went wrong (IMCA emphasis)

The investigation concluded that:

- **Deck operations were not being properly controlled or supervised and the deck officers did not communicate with each other** - the second officer did not know the chief officer was about to move the crane and the chief officer did not know where the second officer was, or what he intended to do;

IMCA store terms and conditions (<https://www.imca-int.com/legal-notices/terms/>) apply to all downloads from IMCA's website, including this document.

IMCA makes every effort to ensure the accuracy and reliability of the data contained in the documents it publishes, but IMCA shall not be liable for any guidance and/or recommendation and/or statement herein contained. The information contained in this document does not fulfil or replace any individual's or Member's legal, regulatory or other duties or obligations in respect of their operations. Individuals and Members remain solely responsible for the safe, lawful and proper conduct of their operations.

- The second officer’s judgment and perception of risk were probably adversely affected by alcohol;
- Tiredness might also have adversely influenced the second officer’s actions;
- The master did not adequately investigate or report the accident;
- **The safety culture on board was weak; company procedures were not followed, and several unsafe working practices were observed;**
- The company’s drug and alcohol policy was not being enforced.

Members may wish to refer to:

- IMCA IMCA M 205/IMCA D 046 *Guidance on operational communications*
- IMCA HSSE 040 Rev. 0.1 *Guidance on Drug & Alcohol Policies and Testing*

## 2 Disabled audible alarm on fire alarm panel

### What happened

During routine testing of the fire alarm, it was observed that the Fire Alarm panel was not emitting an audible alarm – there was only a flashing light present. The Chief Engineer together with the ETO inspected the fire alarm panel and found that a cable had been disconnected from the panel.

### Causes

How the cable came to be disconnected could not be determined. There was no proper testing of the fire alarm system, nor any oversight or recording of maintenance.

Members may wish to check fire alarm panels any similar alarm equipment or warning systems to verify that all alarms audible and visual are functioning.

Members may wish to refer to

- [Incorrect information in user manual for fixed fire-fighting system](#)
- [Listing of crew boat due to water ingress \[The bilge alarm signal was only a flashing light and not an audible sound alarm\]](#)
- [Grounding and flooding of ferry - complacency \[audible alarm was disabled in the electronic navigation system\]](#)
- U.S Coast Guard: [Be alarmed by all alarms](#)

## 3 Inappropriate use of pneumatic line thrower for mooring line

### What happened

During mooring operations crew on a vessel used a pneumatic line thrower (PLT) to throw a mooring line. Several attempts were made, of which one was successful. Two of the “bullets” disappeared and a window was broken at a warehouse building, approximately 100 meters from the vessel.

---

**Applicable Life Saving Rule(s)**



Bypassing Safety Controls

---



Disabled audible fire alarm



Disconnected cable

---

**Applicable Life Saving Rule(s)**



Bypassing Safety Controls

---

## What went wrong?

- There was no toolbox talk before the mooring operation;
- There was a change of plan during the mooring operation: it proved impossible to get a heaving line to the quayside and so a PLT was used, which was not a part of mooring equipment;
- The PLT was not used according to manufacturers instructions or recommendations;
- The use of the PLT was not covered in the existing risk assessment for mooring operations;
- There was inadequate communication with the mooring team onshore;
- No-one stopped the job; no-one thought through or *assessed* the potential risks of using the PLT.



## What lessons were learnt?

- Pneumatic line throwers ought not be used during mooring operation alongside quay, due to the increased risk to people and property;
- Develop a solution to get a heaving line ashore from vessels with a covered forecastle, without using a PLT;
- Ensure changed plans are managed using a Management of Change process; ensure appropriate risk assessment and toolbox talks are carried out before mooring operation;
- Reiterate duty to stop the job and intervene if unsafe work is taking place.

Members may wish to refer to:

- IMCA SEL 029 [Mooring practice safety guidance for offshore vessels when alongside in ports and harbours](#)
- Video: HSSE 021 [Risk assessment](#)
- Video: HSSE 026 [Toolbox talks](#)
- Short “[Are you prepared to work safely?](#)” video on Toolbox talks
- [Improper use of heaving line](#)
- [Non-fatal man overboard incident](#)

## 4 Issues relating to Coronavirus management

A member has shared a number of issues relating to the Coronavirus pandemic.

### COVID-19 confirmed case on the vessel

A vessel assigned employee approached the vessel clinic with a high temperature and other COVID-19 related symptoms. The person was quarantined and a swab test performed with results confirmed as COVID-19 positive. They were then medevaced ashore. The vessel was quarantined and further monitoring revealed three more positive cases onboard within next 10 days. All these affected personnel recovered. The vessel after disinfection and with new crew is back in operation.

Our member noted that:

- Vessel was under company and client quarantine regime with clear red & green zones segregation and monitoring controls in place. The positive case was identified after 8 days of quarantine in a hotel and on the 25th day onboard the vessel. In spite of all the above it is obvious that quarantine and prevention procedures failed at some stage and thus contamination occurred;
- Site visits revealed several cases of wearing non-medical masks by crew and client representatives.

Our member recommended:

- Robust COVID-19 segregation, PPE & social distance measures to be implemented on vessels and worksites at all times by all parties. Any failures observed should be immediately reported;
- The best form of prevention continues to be social distancing, wearing of masks and practicing good hand hygiene at all times.

### Safe disposal of face masks



One of the PPE requirements to combat the spread of COVID-19 is the use of masks, because it is an efficient means of protecting ourselves and others. This has significantly increased demand and production of single-use surgical masks all over the world. However, it is also important that safe disposal of COVID-19 masks is taken into consideration.

- Face masks can take centuries to break down, thus having a profound negative impact for marine wildlife and ecosystems;
- The ear loops of a mask pose an entanglement risk for marine wildlife.

Recommendations:

- Dispose of masks responsibly:
  - Be aware of the nature of the hazards and the risks involved in disposing of single-use masks;
  - Cut off the straps of the single-use masks before disposal;
  - Consider using re-usable face masks where possible.

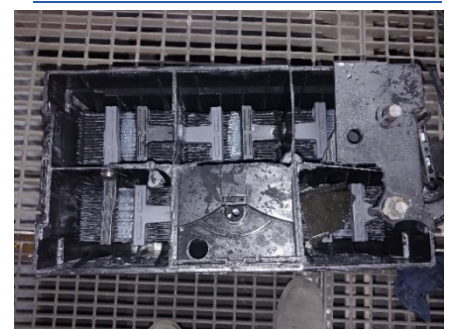
## 5 Lead-acid battery explosion

### What happened

A lead-acid battery blew up when an engine was started. The incident occurred when, after conducting pre-start checks on a generator, the 2nd Engineer attempted to start the engine. As the lube oil pressure reached start pressure and the starter motor engaged, there was a loud bang from behind the engine in the vicinity of the port side battery box. The 2nd Engineer on investigating, found that one of the batteries in the bank for the generator had suffered a critical failure resulting in the top of the battery case being destroyed. He left the space immediately in case of release of hydrogen gas and woke the Chief Engineer to inform him of the incident.

### What was the cause?

- The battery tie connection on the negative terminal had formed a hot joint. This would have ignited any excess hydrogen built up inside the battery box when the generator started;



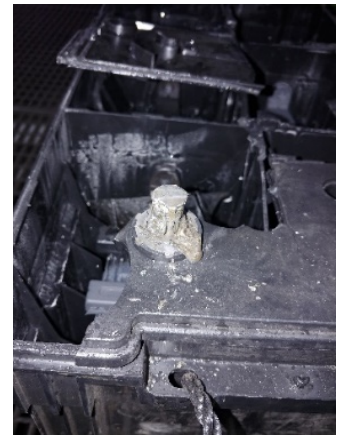
- The manufacturers instructions stated that the battery should not be used in hot environments (such as engine rooms).

#### Actions

- Consider replacing lead acid batteries with a type that does not release hydrogen when being charged, such as AGM (Absorbent Glass Mat) batteries;
- Check all battery terminals and connections;
- Follow manufacturers instructions when installing batteries.

Members may wish to refer to the following *all relating to Lead-acid batteries*. Incidents involving other important battery chemistries such as Lithium-ion are also available for review.

- [LTI: Person injured by a battery explosion on vessel deck](#)
- [Near miss: fire/explosion thermal runaway – lead acid battery](#)
- [Two battery issues - step change](#)
- [Explosion causing fatal injury during maintenance of Metocean buoy](#)
- [Internal explosion within 12V forklift battery](#)



## 6 Sludge Accumulation in Fresh Water Tank

During inspection of a fresh water tank, it was discovered that there was significant sludge accumulation in the tank. Based on the condition of the tank, it was seen as more than likely that other tanks would be similarly affected and that the cause was due to a common source of water.

Sludge build-up in fresh water tanks, hoses and pipes can lead to the prevalence of bacteria that may pose a health hazard.

#### What went wrong

Our member understood that the condition was as a result of the quality of the water obtained from port. There was an accumulation of sedimentation and of organic and inorganic matter over a period of time.

#### Actions

- Immediate inspection of other fresh water tanks to ensure potability of water supply, and subsequent maintenance (taking note of the requirement for Confined Space Entry permits to work) was arranged as soon as reasonably practicable;
- Internal tank inspection for signs of possible contamination and debris every 6 months for potable water and every 12 months for non-potable water;
- Disinfection of hoses as a routine measure every 6 months, or whenever any contamination is suspected. Our member flushed hoses thoroughly through and completely filled them with a solution of 50 ppm residual free chlorine, which was then allowed to stand for a period of at least 1 hour before the hoses were emptied and re-stowed.

Members may wish to refer to:

- [Two cases of contaminated drinking water](#)
- [Suspected case of Legionella onboard vessel](#)

---

**Applicable  
Life Saving  
Rule(s)**



Bypassing  
Safety  
Controls

---



*Sludge precipitation*