

## IMCA Safety Flash 02/20

January 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](mailto: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.

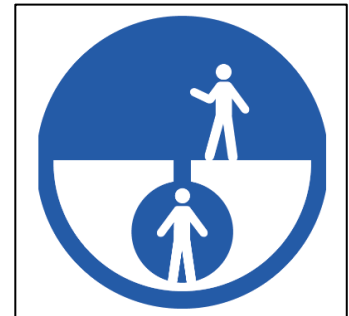
A number of other organisations issue safety flashes and similar documents which may be of interest to IMCA members. Where these are particularly relevant, these may be summarised or highlighted here. Links to known relevant websites are provided at [www.imca-int.com/links](http://www.imca-int.com/links).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

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### 1 Crew Member Fainted After Working in Water Ballast Tank

#### What happened?

A crew member felt faint and subsequently collapsed after working in a confined space. The incident occurred following the work of a four-person team on rust removal maintenance of the water ballast tanks. The team spent the day removing bottom sediments and rust scales in a tank and came out in the late afternoon for dinner. One crew member stated that he felt dizzy and was experiencing a headache and blurred vision. The team assumed dehydration was the cause and proceeded to return to their cabins in preparation for dinner. During the elevator ride to the upper deck, the crew member fainted.



The team contacted the Master and Chief Officer who administered medical oxygen before transferring the crew member to the ship's hospital for further observation. After regaining consciousness, the crew member reported that he had smelled a strong odour after dislodging a large caked piece of sediment from the bell mouth.

Following medical advice, the crew member was treated for suspected Hydrogen Sulphide poisoning as a worst-case scenario. The crew member recovered quickly and returned to full duties two days after the event.

Our member noted that their company 'Enclosed Space Entry' procedures were all followed, and all safety measures implemented as per the risk assessment and permit to work (PTW). The tank had been open and continuously ventilated for the three days prior to the incident occurring, and all personnel were wearing portable multi-gas detectors and oxygen monitors.

#### What were the causes?

- ◆ Immediate causes:
  - enclosed space atmospheres are hazardous as a result of a combination of potential conditions even after full ventilation and atmosphere testing has been completed
  - physical discomfort caused by lack of airflow, warmer temperatures, awkward positioning, slippery surfaces and lack of illumination can lead to personnel feeling unwell, dehydrated and fatigued
  - ballast tanks can contain toxic gases – Hydrogen Sulphide can be found in tank sediment as a result of decomposing sea life which may enter the tank;
- ◆ Causal factor – lack of knowledge; the tank team were not fully aware of the hazards associated with the task and the crew member did not recognize the potential danger when he smelled the strange odour;
- ◆ Root cause – the risk assessment did not adequately address the hazards and severity of the task.

## What actions were taken?

Immediate action taken was all maintenance work in the water ballast tank was halted until the atmosphere was confirmed as safe for entry. The Chief Officer entered the tank in SCBA and conducted repeated tests after deliberately agitating the tank sediment. However, no evidence of hydrogen sulphide or any other harmful gases were noted.

Subsequently:

- ◆ Review the risk assessment for enclosed space entry and ensure that the hazards identified are specific to the tank/spaces being entered;
- ◆ Ensure effective toolbox talks (TBT) are carried out; discuss the hazards identified in the risk assessment and ensure the team fully understands the need to take regular breaks, the importance of staying hydrated and what to do in an emergency or if the tank atmosphere is compromised;
- ◆ Ensure the team on-board are aware of the potential gases which could be found in such tanks and how they behave and can be recognised. Hydrogen Sulphide is heavier than air so tends to collect at the tank bottom as a colourless gas that at low concentrations smells like rotten eggs;
- ◆ At higher concentrations it will deaden the sense of smell – and the person!

Members may wish to refer to:

- ◆ [Person felt unwell while working in confined space](#)
- ◆ [Confined Space Entry: person overcome by fumes and rendered unconscious](#)
- ◆ [High Potential Near Miss: person found unconscious in confined space](#)
- ◆ [Confined Space Entry Incidents – A Reminder](#)

## 2 Failure of Life Raft Securing Strap

### What happened?

A life raft from the starboard forward life raft station made an unplanned deployment into the sea. The incident occurred in early afternoon with calm seas and clear skies. The life raft remained attached to the painter line and vessel. The vessel was later able to safely recover the life raft to deck.



Photo 1  
Image of sling after the life raft deployment, as found.

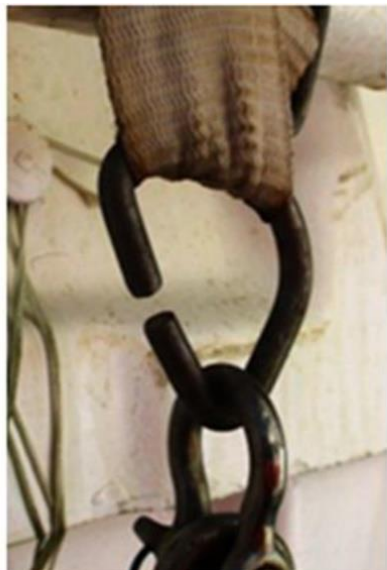


Photo 2  
The sling parted in the buckle at its weakest point.



Photo 3  
The sling material was found to be fragile and parts easily, suggesting UV degradation.

## What went wrong?

There was a failure of the securing straps designed to hold the life raft in place. This allowed one life raft to deploy into the sea. The securing straps had only been installed one-year prior to failure.

The vessel was in operation in the Middle East, with high temperatures and high UV levels.

## What was the cause?

The hold back strap, used to retain the life raft in place, was found to be degraded to the point of failure. This appears to have been caused due to the extremes of temperature and ultraviolet light.

## What actions were taken?

Inspection routines for life rafts and associated lashings should consider the environmental conditions, and all parts of the equipment should be visually inspected and maintained at appropriate intervals.

Assumptions should not be based on vessel operating areas; UV damage may occur within any region.

- ◆ Conduct immediate inspections of life raft securing straps and associated equipment;
- ◆ Replace any items which are of concern or appear to be faulty;
- ◆ Verify manufacturer's instructions with regards to the service life of the securing straps;
- ◆ Any temporary secondary securing arrangements should not affect the ability to launch any life raft – as per SOLAS requirements.

Members may wish to refer to:

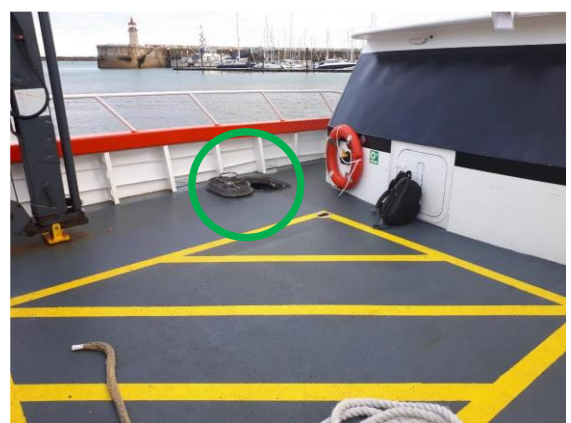
- ◆ [UK MCA Guidance note MGN 343 \*Hydrostatic release units: stowage and arrangements for liferafts\*](#)
- ◆ [Life Raft Self-activates and falls to the quayside](#)
- ◆ [Unplanned Deployment Of Free Fall Lifeboat](#)

## 3 LTI: Step into Open Deck Hatch Causes Fall

### What happened?

During personnel transfer operations on an offshore renewables crew transfer vessel (CTV), a deckhand stepped backwards into an open hatch and fell, resulting in an injury.

Before the incident the CTV was on standby in the field and the two-man crew were doing maintenance in the starboard hull, with the forward and aft hatches open. As the handheld VHF signal was obstructed inside the hull, the call for personnel transfer was not heard. The CTV crew were informed by another CTV and made aware of their call. The crew finished their maintenance and mobilized for the personnel transfer. At this point, only the aft hatch was closed.



Just after the personnel transferred aboard, the deckhand, who was receiving the cargo transfer of luggage, stepped backwards into the open hatch with one foot. In order to try and save himself from falling into the void space, he used his right arm/shoulder on which he landed, resulting in his injury.

The flotel medic boarded the CTV to assess the deckhand; the CTV subsequently went to port to transfer the injured person to hospital for assessment. He dislocated and fractured his right shoulder resulting in an LTI. Our member notes that this incident had the potential to have caused permanent injuries or a fatality.

## What were the causes?

The direct cause – what went wrong – was that the deckhand stepped backwards and did not see, and thus fell into the open hatch.

- ◆ Underlying causes identified:
  - because of miscommunication between the two crew members, only the aft hatch was closed;
  - the forward hatch was left open when the lifting operations started. There were no barriers around the hatch. The outside of the hatch was marked yellow and was clearly distinguishable from the deck when closed. However, there are no proper markings or distinct colour on the inside of the hatch and as a result the hatch is less clearly distinguished when opened
  - VHF radios were used for communication when outside the wheelhouse; when working inside the vessel hull, reception is lost
  - risk assessments for this particular task were not adequate
  - due to the 24-hour operations, ‘pre- and post-sailing checks’ were not being executed at all times. These need to be executed at least prior to sailing away after mooring or maintenance activities
  - it is believed and confirmed that the crew felt pressure to finalize their work, unmoor and mobilize quickly.

## What actions were taken?

- ◆ Amend risk assessments to include all relevant preventive measures (including responsibilities for lifting, and deck checks prior to lifting operations and clear means of communication);
- ◆ Provide distinct (colour) marking on the inside of the hatches to make them easily distinguishable when open;
- ◆ During 24hr operations, time for maintenance should be scheduled in;
- ◆ Investigate improvement measures for radio communications when working in the engine room;
- ◆ Reiterate lesson ‘*time pressure should be prevented and in case it does occur unexpectedly; this should not lead to rushing or taking short cuts*’;
- ◆ Reiterate ‘stop work authority’.

Members may wish to refer to:

- ◆ [Medical Treatment: Person Fell Down Unprotected Hatch](#)
- ◆ [Crewman Falls Down Open Hatchway During Simultaneous Operations](#)
- ◆ [Fall Through Open Hatch In Walkway](#)

## 4 There’s Something in My Eye!

### What happened?

A welder reported to the Chief Officer that he had got something in his eye. The welder had been welding closed ballast tank manhole covers before breaking for lunch. He was wearing full personal protective equipment (PPE). After lunch, the welder was going to bring the materials and fans back to the storage area when his eye started irritating him, and he noticed that there was something in his eye.

At first, he tried to remove the particle out of his eye himself and when he failed, he reported it to the Chief Officer. The Chief Officer applied a first aid treatment by numbing his eye before removing the particle.

### What went wrong?

- ◆ Inadequate attention to surroundings;



- ◆ Inadequate PPE.

### What were the causes?

Weather influence – the wind blew a bit of dust from the face or hair into the eye.

### What actions were taken?

- ◆ Pay attention to your surroundings;
- ◆ Wearing of full PPE may not be enough; care should be taken to ensure that it is worn properly and provides full protection for the eyes.

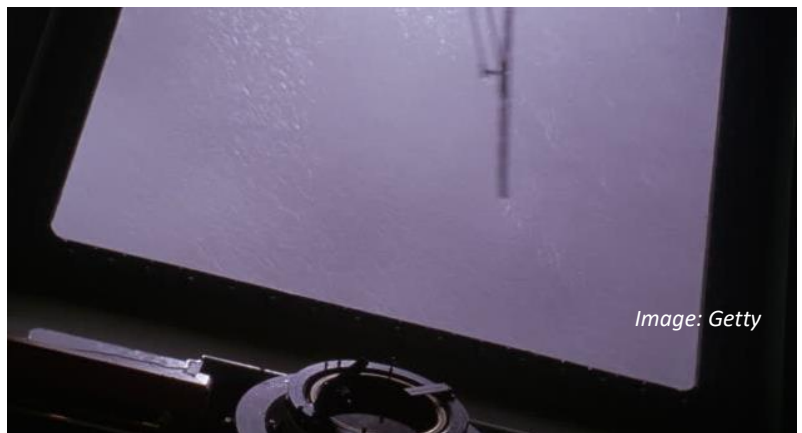
Members may wish to refer to:

- ◆ [There's something in my eye!](#)
- ◆ [Eye Injury: crewman got something in his eye when removing his PPE](#)
- ◆ [Loss of sight in right eye: misdiagnosis of illness](#)

## 5 Water Ingress During Tropical Storm

### What happened?

A vessel took on a significant amount of rainwater on the upper tween deck during an intense tropical storm. At the time of the storm, the forward crane could not be seen from the bridge. At 0645, it was noted there was water ingress at the upper tween deck. Water ingress came via the starboard stores hatch on the main deck. Immediately after notifying the bridge, more crew were called to contain the ingress.



The vessel was deliberately listed to starboard to prevent the water from entering the corridor in the accommodation. Unfortunately, some water did enter the corridor before the vessel was listed sufficiently. The vessel was slightly trimmed by the bow.

### What went wrong?

- ◆ The hatch was closed but not properly secured. After the vessel left port, no one thought about properly closing the hatch;
- ◆ Due to the weight of the hatch, the hinges were slightly deformed and pushed the hatch about 5mm out of true, and therefore the hatch did not rest correctly on its rubbers and it was very hard to turn the clamps.

### What were the causes?

- ◆ Lack of seamanship and inadequate attention on securing that the hatches are closed;
- Inadequate design.

### What actions were taken?

Ensure that hatches are properly closed and secured and that the hatches and clamps are checked regularly and carefully and will receive preventive maintenance.

Members may wish to refer to:

- ◆ [Engine Room Emergency Hatch Damage](#)
- ◆ [Listing Of Crew Boat Due To Water Ingress](#)
- ◆ [An Error With Fire Flaps Led To Engine Space Flooding, Causing Costly Damage](#)
- ◆ [Flooding In Steering Gear Compartment](#)