

IMCA Safety Flash 22/20

July 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 Finger injury caused by incorrectly secured console cover

What happened?

An incorrectly secured console cover closed in an unplanned and unexpected way, trapping a crew member's finger, which was injured. After completing a task on a raised working platform a technician was coming down the steps back down to the deck level. To steady his descent, he placed his hand on the corner of a control console. The console cover dropped unexpectedly to its closed position trapping his smallest finger on his right hand between the console and the edge of the cover. This guillotine action fractured his finger.

**Applicable
Life Saving
Rule:**



Line of Fire



Hinged mechanism was retained by two unsecured wing nuts



The injured person had been descending the raised platform and placed his hand on the console to steady his descent

What were the causes? What went wrong?

- ◆ The hinge was found to function correctly, as designed, but the wing nuts that secured the hinge in place had not been sufficiently tightened;
- ◆ The console cover, possibly affected by weather or vessel movement, dropped at the same moment the injured persons finger was placed in the line of fire;
- ◆ The design of the console weather cover hinge was completely reliant on correct wing nut tightening and requires an improved means of securing to avoid similar cover displacements;

- ◆ Hinge mechanisms that do not lock automatically or “lock-safe”, introduce the risk of injury from unintentional or unexpected closing of the covers.

Actions

- ◆ Reiterate the potential risks for injury from being “in the line of fire”;
- ◆ Carry out a “Hazard Hunt” on your vessel to identify all hinged cover mechanisms that have the potential for repeating the incident outlined in this alert;
- ◆ Install improved hinge locking arrangements wherever a significant risk of hand or finger injury is identified.

Members may wish to refer to

- ◆ IMCA Are you prepared to work safely? *Line of fire* (short three minute video)
- ◆ IMCA video *In the line of fire* (longer, approximately 20 minutes)
- ◆ [Don't Put Your Finger In The Wrong Place: Failure To Isolate Equipment Causes Serious Finger Injury](#)
- ◆ [Finger Injury: Diver Caught Finger In Bell Door](#)

2 Hydraulic sample extruder - finger laceration

What happened?

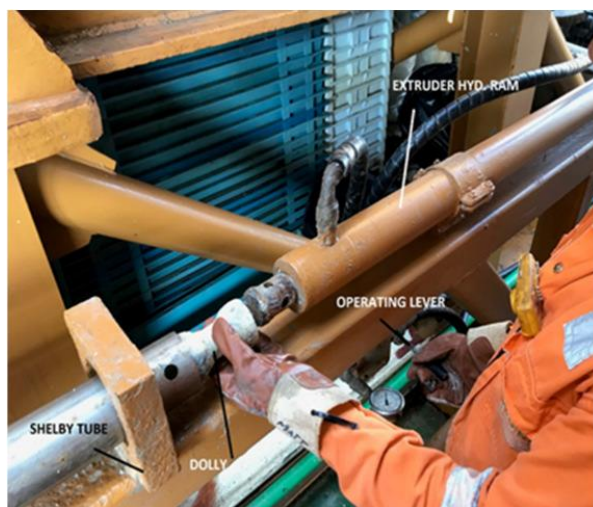
Whilst using a hydraulic sample extruder in a laboratory, the technician caught and injured his finger between the Shelby tube and extruder ram while trying to stabilise the dolly.

The incident resulted in a lost workday case.

What were the causes? What went wrong?

The investigation identified the following contributing factors:

- ◆ Training - insufficient task training and competence assessment;
- ◆ Supervision - ineffective supervision;
- ◆ Risk Assessment - the task risk assessment did not consider the equipment limits and functions or advances in technology, therefore not all the hazards and associated risks were identified or controlled;
- ◆ Design - the sample extruder design is dated and does not consider human factors or ergonomics;
- ◆ Line of Fire - the technician placed his hand between the moving hydraulic sample extruder ram and Shelby tube.



Applicable
Life Saving
Rule:



Line of Fire

Lessons learned

- ◆ Employee training and competence assessment, together with the appropriate level of supervision, is essential;
- ◆ Risk assessments and work instructions should be current and periodically reviewed to take account of new information, changes in technology and legislation;
- ◆ A standardised hydraulic sample extruder design / type and use would be central to the reduction of incidents of this sort.

Actions

- ◆ Improved employee training, competence management and supervision requirements;

- ◆ Reviewed and revised equipment and task risk assessments;
- ◆ Improved signage and labelling, start/stop controls and added guard for moving parts / shear point;
- ◆ Standardised hydraulic sample extruder design / type and use across the company;
- ◆ Develop common operating procedures for this equipment.

Members may wish to refer to

- ◆ [Lost Time Injury \(LTI\): Stored Pressure Release – Crewman Lost An Eye](#)
- ◆ [Don't Put Your Finger In The Wrong Place: Failure To Isolate Equipment Causes Serious Finger Injury](#)
- ◆ [Serious Finger Injury During Valve Installation](#)

3 LTI: Loss of fingertip and nail

What happened?

While crew were moving lashing materials (chains, shackles and turnbuckles) from the garage deck into a storage space, the bosun suffered a serious finger injury. The incident occurred as part of routine housekeeping activity on a vessel at anchor. The bosun was in the storage space putting equipment into storage bins. These bins were under shelves in a limited space. Suddenly, the turnbuckle slipped on the bosun's finger while he was placing the turnbuckle in the storage bin. The thread of the turnbuckle hit his finger. He took off his gloves, to find that his middle finger tip was missing and it was found inside his glove.

The bosun was sent to hospital for treatment; after 5 days he was sent to home where he could recover.

What were the causes? What went wrong?

None of the crew saw exactly what happened. The crew member helping the bosun just turned around to get another turnbuckle. The crew noted afterward that there was nothing different than normal – this was a routine task, no rush, just easy clearing of the lashing materials from the garage deck.

It was noted that there was limited storage for handling the turnbuckles, and the device slipped on the bosun's finger. More job preparation – removing the bin from the shelves using a pallet truck – might have helped but this was not done as the the storage bin, which was very heavy, was left in place.

Applicable
Life Saving
Rule:



Line of Fire



Short IMCA videos

Are YOU prepared to work safely?

Watch your hands

Line of fire

Manual handling

Actions taken & lessons learned?

- ♦ Moved the storage bins under the shelves to a better location;
- ♦ Devised procedure to eliminate manual handling of the turnbuckles.

Members may wish to refer to

- ♦ Routine Task: Badly Cut Finger Changing Mop Head
- ♦ 'Routine' Task, Non-Routine Result: Finger Injury During Welding
- ♦ Sharp Wire: Injury During Routine Maintenance
- ♦ LTI: Cut To Hand From Protruding Hose Clip (Marine Safety Forum)

4 Person injured when leg slipped through floor hatch

What happened?

During routine inspection of an engine room, someone slipped through a loose floor hatch plate and sustained a cut wound about 3 cm on the shin of his left leg.

What were the causes? What went wrong?

Failure of screw connection between the floor hatch plate or covering and the underlying hatch support. There had been no regular inspections of these floor hatches or their supports since vessel build. Not all floor covering hatches were designed with screwed supports. The inspection of the hatch supports was not a part of the vessel-specific planned maintenance system.

Applicable
Life Saving
Rule:



Bypassing
Safety
Controls



Line of
Fire



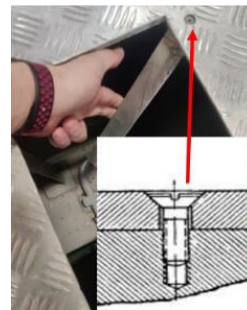
Reconstruction of
incident



Area involved



Showing hatch
support



Failed screw
connection



Warning markings

Actions

- ♦ The screw connections for this hatch were replaced with bolts;
- ♦ There was a check of the condition of the screw connections of floor covering and supports elsewhere;
- ♦ Warning markings were applied to floor hatches in the engine spaces;
- ♦ Periodic inspection of floors hatch covers and supports to be added to the vessel-specific planned maintenance system.

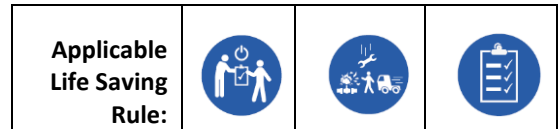
Members may wish to refer to

- ♦ LTI: Engineer Injured Following Engine Room Slip/Trip
- ♦ Edges And Ledges – a slip on deck resulted in injury
- ♦ Near Miss: Engine Room Hatch Left Open Without Barriers

5 Member of the public killed following unplanned movement of an unsecured load

What happened?

The UK Health and Safety Executive (HSE) fined a company after it caused the death of a child when he was trapped between an unsecured pole and a fence.



An employee delivered an overhead power pole to a roadside verge location, and *left the pole unsecured* [IMCA emphasis] at the top of an embankment. It subsequently rolled down, trapping a 12-year-old child between it and a fence, causing fatal injuries.

What went wrong?

- ◆ There was a failure to provide a safe system of work for the delivery and storage of the poles;
- ◆ There was a failure to provide suitable training, information and instruction to employees engaged in their tasks.

See [full press release here](#).

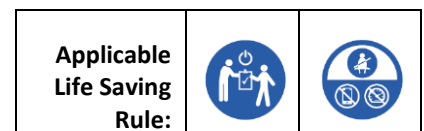
Members may wish to refer to:

- ◆ [Worker Seriously Injured When 1 Tonne Load Fell On Him](#)
- ◆ [Port Company Fined After 600kg FIBC Bag Falls On Employee](#)
- ◆ [Crewman Injured When Steel Plates Fell Against Him](#)

6 Cargo Ignited on Truck Bed During Transportation

What happened?

There was a fire in the cargo on the back of a truck whilst moving materials from the warehouse to the vessel. Whilst in transit, the driver observed flames coming from the truck bed. He stopped the vehicle and used the vehicle fire extinguisher to tackle the fire. He was successful, despite very strong winds, and then returned to the warehouse safely. No injuries to personnel, no damage to truck.



Truck bed after the fire



Hand sanitizer



Lead-acid battery

What were the causes? What went wrong?

Investigation did not reveal the exact source of ignition. There were nevertheless a number of concerns identified after interviews and review of CCTV video records:

- ◆ The transported cargo appeared to have not been secured or belted in the truck bed;
- ◆ Bottles of hand sanitizer, known to be a petroleum-based flammable material, formed part of the load. Prior to loading, there was no check made of the integrity of the bottles of hand sanitizer to see if there are any damage, leakage or container lids not properly closed. [NB this incident occurred in a hot country];
- ◆ There was no segregation nor proper packaging of transported materials. Spirit containing sanitizers were stored next to lead-acid batteries and other equipment with metal elements (chairs and spare parts etc.) It was considered that loose metal parts could have potentially damaged the bottles of hand sanitizer, causing leakage of flammable material, or, interact with batteries causing sparks.

Hand sanitizer – COVID-19

It has become common practice in some places to carry a personal bottle of hand sanitizer. It has been suggested that leaving such alcohol-based fluid in a hot car or in direct sunlight could be a potential fire hazard.

Actions

- ◆ All transported loads should be packed & secured properly;
- ◆ The integrity of the load should be checked to ensure no damage, leakage or container lids not properly closed;
- ◆ Any internal and external potential for fire or sparks should be evaluated and eliminated before the journey.

Members may wish to refer to

- ◆ [LTI: severe burn from short circuited Li-ion battery \[cause: metal short-circuited battery terminals\]](#)
- ◆ [‘Routine’ Task, Non-Routine Result: Batteries Stored Sideways Leak Battery Acid](#)
- ◆ [Three Fires](#)
- ◆ [Load Fell From Trailer after it was inadequately secured](#)