Safety Flash

09-23 – April 2023

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 LTI finger injury during mooring operations

Applicable Life Saving Rule(s)

Bypassing Safety Controls

Line of Fire

What happened

An AB got his left index finger trapped between a bitt and a mooring rope, resulting in a broken finger and 45 days off work. The incident occurred during un-mooring at the end of a ship-to-ship refuelling operation.

What went wrong

- There was no assessment of the PPE worn by the crew on this job; the impact gloves worn by the AB were in poor condition;
- There was a soft eye at the end of the mooring rope, but no small rope extension was used to remove the soft eye from the bitt;
- The crew on the other vessel did not allow sufficient slack on the mooring rope;
- There was no management oversight or monitoring of inexperienced or “short service” personnel.

Lessons learned

- Ensure short service personnel (persons who are not yet experienced on any given worksite or vessel) are appropriately supervised;
- Our member started to use small rope extensions on the soft eyes so as to avoid exposing fingers and hands to risk;
- Ensure that sufficient slack is allowed when handling mooring ropes.

Members should review:

- Line of fire – short video

- IMCA HSSE 036 *In the Line of fire* – longer video
- IMCA HSSE 038 *Mooring incidents*

2 Crew member trapped his left index finger in watertight door

Applicable Life Saving Rule(s)

Line of Fire

What happened

A fitter's left index finger was pinched between the moving door edge and door frame causing small abrasions to the index finger. The incident occurred during testing of the watertight door following a visual alarm on the bridge which had indicated that a watertight door near one of the engine rooms was open. The Engine control room was contacted and requested to investigate the door status. A fitter was sent to check the door. Upon arrival he noted that the door was closed; however, the audible alarm was going off, indicating that the door was open. He began testing the door, which involved cycling it from closed to open. As he did so, his left hand was positioned flat on the moving door whilst his right hand was used to operate the hydraulic door lever. His focus was on the locating pin and sensor where he believed the fault to be, and he didn't realise his hand had moved into the line of fire. As he closed the door he got his finger caught between the moving door edge and door frame resulting in a minor injury.

Although the actual consequence of this case resulted in a minor injury the potential consequences of incorrect conduct with watertight doors could have resulted in a serious injury.

What went wrong

- The fitter's extreme focus on fault finding caused him to miss the important fact that his hand was in the line of fire;
- There were other distractions such as high noise levels from the machinery space, the door alarm, and flashing light which could have contributed to his lapse of concentration;
- Our member notes a non-contributing factor was the routine practice of leaving watertight doors in the open position whilst at sea. This could result in a detention by Port State Control or more importantly the risk to the integrity of the vessel when at sea.

Learning

- Controlling or modifying human behaviour is a difficult managerial challenge, which requires a commitment to safety, and the effective use of education, training, monitoring and enforcement.

Members may wish to refer to:

- LTI: person crushed in watertight door
- Line of fire: pinched finger between door and frame
- Lost time injury (LTI): Finger injury – watertight sliding door

3 Hand injury from portable grinder

Applicable Life Saving Rule(s)

Bypassing Safety Controls

What happened

A subcontract worker received a 3cm laceration to the hand while using a portable grinder. The incident occurred during flowline fabrication work at a spool base. The portable grinder was turned off and hanging on the grinder stand (vertical support), with a flapping disk installed. The worker used his left hand to pick up the grinder to start preparation of the parent coating in the workstation. As he grabbed the grinder, he inadvertently pressed the start trigger and the grinder started spinning. The grinder then slipped hitting his left hand, which resulted in a 3cm laceration between thumb and forefinger. He received first aid before being taken to hospital for further treatment – six stitches.

What went wrong

- The grinder used by the subcontractor had reduced safety features (i.e. a “deadman” switch only) when compared with company grinders at the same worksite (which were fitted with a “fast break deadman” switch);
- The wheel protection was not properly positioned, allowing the spinning disc to touch the workers’ hand. This was not aligned with company “Abrasive wheels training” requirements;
- Although the worker was wearing the appropriate anti-cut gloves, their specifications were of a lower protection than those used by company crew.

Lessons learned

- Ensure grinder wheel protection, and power tool guarding, is properly positioned before using the tool; during pre-work inspections; and during regular maintenance;
- Ensure subcontractors are clear on the requirements for PPE and hand tools – should be the same for all;
- Before all operations remember the “7T’s” – **take the time to think things through;**
- Exercise stop work authority as and when appropriate.

Members may wish to refer to:

- Portable grinders – hand safety (2016)
- Hand injury from portable handheld Angle Grinder (2020)
- Unsafe Use of Hand grinder with damaged disc (2020)
- Watch your hands!! person injured while using an angle grinder (2021)
- Injury to Fingers During Grinding Activity (2021)
- Near miss: grinder disc rotation set up in the wrong direction (2022)

4 Cut and bruise to right hand whilst pressure testing

What happened

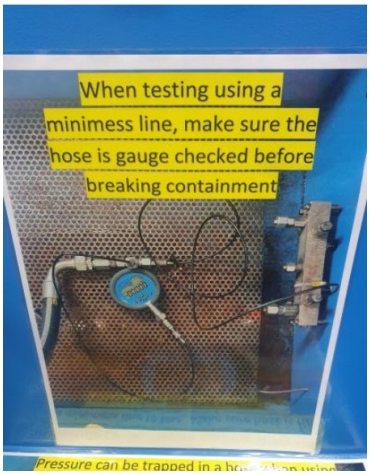
Applicable Life Saving Rule(s)

Line of Fire

A technician was pressure testing hydraulic hoses in the hydraulic workshop using the water pressure test bed. He had previously tested two hoses earlier in his shift. On completion of pressure testing the third hose the technician opened the drain valve and witnessed the gauge go down to 0 bar. He then proceeded to remove the blanking flange from the opposite end of the hose he was testing. When doing so a release of pressure occurred knocking his hand onto the wall of the test kit resulting in a laceration to the palm and a bruise to the back of his right hand.

Test bed

Control panel



Instructions posted

What were the causes

- The technician assumed that as the reading on the gauge had dropped to zero, it would be safe to release the fitting. But the larger volume equated to a longer drain time;
- Pressure was trapped because the connection was mistakenly slackened too quickly after opening the drain valve. This resulted in the check valve in the hose to close and trap the remaining pressure in the hose. The hoses were “Minimess” hoses;
- Though the gauge on the control panel was reading zero it would have taken a few more seconds for the pressure to dissipate from the test hose due to the larger (3.75cm) diameter;
- Pressure was released when the technician started to remove the blanking flange.

Learnings identified

- Create a routine duty for the testing of “Minimess” hoses and update the appropriate task risk assessment;
- **WAIT a moment!** Allow a delay of 10 seconds from when main pressure valve is opened, and always install a second gauge on the test hose after the “Minimess” to ensure the test hose has zero pressure;
- Post better instructions on the test rig reminding users of precautions when testing hose and to ensure pressure is drained from the test hose.

Members may wish to refer to:

- Near-miss: Release of trapped pressure after ROV dive
- Trapped pressure release incident
- Fire main dust cap blown away by pressure from the line

5 LTI: Hand injury in galley

Applicable Life Saving Rule(s)

Bypassing Safety Controls

Line of Fire

What happened

An experienced cook in the galley badly injured his hand when his knife slipped. The incident occurred in a vessel alongside at Christmas. The cook was preparing meat when his knife slipped and jabbed the top left part of the palm of his left hand, causing a serious laceration.

As a consequence the cook needed surgery to repair three damaged nerves.

What went wrong

- The cook used no PPE – butcher's gloves;
- The meat was not at the ideal temperature for cutting with minimum force;
- Cutting was done by both pushing and pulling of the blade;
- The risk of the knife slipping was neither assessed nor mitigated.

Lessons learned

- Cut away from the hands or the body;
- Use appropriate PPE in the galley;
- Did the injured person feel pressure to carry on ? A person working alone also has "Stop work authority";
- Experience is not necessarily a fail-proof barrier or mitigation against risk.

Members may wish to refer to:

- Finger and hand injuries
- Lost time injury (LTI): Severe hand injury in galley