

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 Serious finger injury in power operated watertight sliding door

What happened?

A crew person suffered a very serious finger injury in a watertight sliding door. The incident occurred when engine crew were heading to a storage area for an inventory check. As they passed through a power operated watertight sliding door, a team member pushed the “open” button, and at the same time the vessel rolled with the swell. The injured person lost balance and reached out to grab for support. He caught the sliding door while opening and trapped his middle right finger between the door and the bulkhead resulting in a serious injury. Our member classified the injury as an RWC (Restricted Workday case). There is a graphic image of the [injured finger](#) here for reference purposes (not for the squeamish.)

What went wrong

- Improper communication of hazards in the working area;
- Lack of a hazard zone to limit people in the “line of fire” area.

What was the cause

- Our member noted that the injured person was in an improper position for the task he was conducting, at a time of adverse sea conditions;
- Perhaps because it was “only a door” the crew did not take seriously enough, the dangers of being too close to powered machinery in motion;
- There was a lack of:
 - Instruction and understanding of how to behave near powered watertight doors;
 - Identification of the risk involved in being near the door whilst it was in motion;
 - Engineered barriers to prevent the incident from having happened at all.

Lessons and actions

- Powered watertight doors are potentially very hazardous, and can be lethal if not treated properly. Keep a strong focus on watertight door safety;
- Keep away from powered watertight doors whilst they are in motion: our member marked up and enforced a “no-go zone during door operation” policy for watertight sliding doors;
- Stop and think
 - Where else might there be similar entrapment/crush hazards?

Applicable
Life Saving
Rule(s)



Line of Fire



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- What might you have done personally, to avoid this from happening to you?
- Is a powered sliding door any different from any other moving machine part that which would be barriered off and guarded?

Members should refer also to the following recent incidents:


- Crew member trapped his left index finger in watertight door
- LTI: person crushed in watertight door
- Lost time injury (LTI): Finger injury – watertight sliding door
- Accidents when using power-operated watertight doors
- Fatal accident involving a horizontal watertight sliding door

2 LTI: serious hand injury - fingers lost in unexpected hatch closure

What happened?

A crew person was checking the water tightness of the engine room’s emergency hatch cover. Safety lock pins, used to prevent the hatch cover from closing, were missing. To hold the hatch cover from closing, the crew person improvised using a nearby chain which he hooked to a hose support. However, the improvised arrangement failed and the hatch cover closed unexpectedly. The injured person had his left hand in the mouth of the hatch, and the hatch cover landed on his fingers. The tips of his two longest fingers were very badly injured, and had to be amputated.

Applicable Life Saving Rule(s)



Bypassing Safety Controls Line of Fire

This incident contains a link to a graphic photograph of the injuries sustained.



Safety lock pins missing



Hatch cover held by chain and hooked to a hose support



Hand trapped by fallen hatch **(RE-ENACTMENT)**

What went wrong

- There were no safety locking pins for the main engine room emergency hatch cover. Routine inspection was conducted on the emergency hatch cover as required in the planned maintenance system. The checklist for the routine inspection was marked as completed, but the job was not actually done;
- Poor spatial awareness: the injured person was not aware of the pinch point; therefore he didn’t stop the job when he saw that there were no safety lock pins on the hatch;
- The injured person improvised an inadequate and inappropriate method of securing the hatch cover;
- The toolbox talk did not highlight potential hazards such as line of fire, pinch point, etc. and its mitigation.

What was the cause

Our member notes the cause as being an inadequate planned maintenance system which did not highlight the lack of safety-critical locking pins.

Lessons and actions

- Review and modify existing planned maintenance system onboard to ensure it is properly implemented and is not just a “checklist tick”;
- Reiterate importance of thorough toolbox talks before the job – take the time to think things through;
- Don’t just improvise safety equipment – stop the job, think it through, get it right;
- Are there areas in your work where you might be tempted to “just do it anyway?” without the right safety equipment?

Members may wish to refer to:

- [LTI: crew member crushed finger when opening fire flap \[an inappropriate tool was used\]](#)
- [Hand injury during closing of hatch \[hatch would not lock properly because locking mechanism was mis aligned\]](#)
- [Injury caused by closing fire flap \[crew failed to follow existing procedures, improvised and “cut corners”\]](#)
- [Graphic photograph](#) of the injured fingers in this safety incident

3 Finger injury during lifting operations

What happened

With a vessel alongside, crew were using the vessel crane to move a pallet of cylinders (part of the vessel’s hydraulic system) from one deck to another. This was in preparation for departure from port. The Second Engineer passed by and decided to assist the crew in positioning the pallet. When the pallet was moved into place, the engineer got one of his hands trapped below one of the cylinders, and the middle finger of his right hand was pinched and injured.

Applicable
Life Saving
Rule(s)



Line of Fire



First aid was provided and the injured person was transferred to a local clinic for further medical examination. The vessel had to sail without him; he did light duties ashore afterward. The incident was classified as a RWC (Restricted Work Case).

What went wrong

- None of the crew involved in the lifting activity had had any formal training in lifting in spite of company procedures requiring this;

- The Second Engineer intervened to help – with the best of intentions – when he ought not have done. He was not part of the lifting crew, he did not attend the toolbox talk, nor was he part of the risk assessment discussions;
- No-one stopped the job – any one of the crew had the authority and obligation to stop the job and take time out to think things through;
- The Second Engineer was not wearing any gloves at the time as he was not part of the job.

What was the cause

Congestion with other material and equipment made moving these cylinders necessary.

Lessons

- Don't just pitch in and help without thinking – that may not be any help at all!
- Keep the workplace neat, tidy and uncongested;
- Use the right PPE and gloves before starting work;
- Stop the job and rethink if the circumstances change.

Members may wish to refer to:

- [LTI: finger injury caused while working with oil drums](#)
- [Hand injury while using manual torque tool](#)
- [Lack of safety awareness: crush injury during lifting operations](#)

4 Finger injury during shackle handling

What happened

During a pennant wire spooling operation, the injured person was trying to remove a 35 tonne SWL shackle from the pennant eye. While trying to jiggle the shackle, it landed on his left middle finger causing a crush injury 1.5cm long.

What went wrong


- The task supervisor (the Bosun) saw the crew person holding the shackle but did not warn him or intervene;
- There was no last minute risk assessment carried out;
- The shackle as initially used was the wrong size.

Lessons learned

- The task supervisor is in charge to control the operation, ensure it is safely conducted, and that the proper tools are used. It is the responsibility of the task supervisor to intervene;
- Use appropriate tools such as crow bars and hammers to release heavy shackles, rather than your hands. Do not expose your hands by handling heavy items.

Members may wish to refer to:

- [Riggers injured while disconnecting rigging](#)
- [Crushed finger injury during wire transfer operations](#)

<p>Applicable Life Saving Rule(s)</p>	 <p>Line of Fire</p>	 <p>Safe Mechanical Lifting</p>
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- Line of fire LTI: Finger injury during lifting operations
- LTI: Finger injury sustained handling heavy shackle pin

5 Hand and finger injuries

Given that the previous four events in this Safety Flash are all hand injuries, some of them quite serious, even shocking hand injuries, we pause to reflect for a moment, and summarise some trends in hand and finger injuries amongst our members in recent times. Hand and finger injuries comprise almost a fifth of the incidents and events submitted by IMCA members just in the last year.

If we look more closely at the most recent ten incidents involving injuries to hands and fingers, some worthwhile conclusions may be drawn from what our members identified as having gone wrong.



Contributory factor	
Poor or incorrect PPE	6/10
Equipment in use was not adequate	5/10
Lack of awareness of risk or inadequate risk assessment	5/10
Poor spatial awareness - fingers were in the wrong place at the wrong time	4/10
Lack of supervision	4/10
Lack of communication or poor communication	3/10
Procedures were not followed, corners were cut	2/10
Someone could have stopped the job – but didn't.	2/10
Someone stepped in and helped with a task when they should have stood back	2/10

Additional causal factors included:

- Poor weather/environment or a noisy and stressful environment;
- A focus on getting job done quickly rather than doing it safely;
- Lack of experience or lack of training,

Please be reminded of IMCA safety promotional materials at <https://www.imca-int.com/store/safety-promotional-materials/> including:

- Hand safety (poster)
- In the line of fire (longer video)
- Line of fire (short three minutes video)

The ten incidents were:

- Hand injury while using manual torque tool
- Hand injury in medical airlock
- Crew member trapped his left index finger in watertight door
- Hand injury from portable grinder
- Finger crushed under Tether Management System (TMS) protection guard
- LTI: finger crushed while moving mobile gantry crane

- LTI: finger injury during davit test
- LTI: fractured finger during anchor handling
- Line of fire LTI: Finger injury during mooring operations
- LTI: Hand injury in galley