

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.

## Hand and finger injuries

Members continue to report hand and finger injuries. In last year's safety statistics, 42% of LTIs reported by IMCA members involved injuries caused when workers got into the Line of Fire. What do we need to do to stop workers putting their hands and fingers in dangerous places? We all want to get the job done – but that one quick pause, whilst we stop to think, could make ALL the difference. Think:

- Is there a better way to do this?
- Could I use a tool instead?
- Should there be a guard? Should I have gloves on?
- Is this still too hot to touch? Is it live or is it still spinning?
- Think carefully before putting your hands where you can't see them.

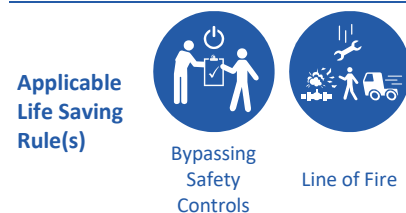
### 1 LTI: fingers severed by spinning fan blade

#### What happened

A worker on a vessel suffered life-changing hand injuries. The incident occurred during housekeeping in the engine room. After turning off power to a portable blower (used for ventilation of a confined space), the worker tried to move the portable blower by hand, grabbing the side of the fan instead of using the designated handle. Unfortunately, he was unaware that the fan blade was still spinning, and he stuck his fingers into the blade housing area to get a grip. There was no sufficient blade guard, and the spinning fan blade severed his index, middle, and ring fingers.

#### What went wrong

- The equipment used was neither suitable nor safe:
  - the handle for the portable blower was obstructed with rope and webbing sling;
  - the portable blower had been modified since appropriate air ducting was not available on board;
  - the opening into the blade housing area was big enough to allow access to fingers;
- The worker was unaware that the fan blades continue to spin for a time after the power is turned off;
- The noise made by the spinning blade (which would have been a warning) was inaudible due to the noise of the engine;



*Demonstration after the fact of what happened.*

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- The worker could not see the spinning blades due to the position of the portable blower;
- There was no toolbox talk carried out, nor control of work.

**Lessons learned**

- Always assume rotating machinery can cause harm, even after the power is off. Residual momentum can keep blades spinning for a significant time;
- Never reach into blind areas. Know where you put your hands, do not try to reach into places where you can't see your hands or fingers;
- Never bypass designated handles or guards. They are there to protect you.



Members may wish to refer to:

- Hand safety – short IMCA video
- Diver Finger Injury – Scrubber Blower Fan
- Hand injury when caught in machinery
- Serious finger injury: procedures during engine maintenance
- Serious finger injury during valve installation

**2 Angle Grinder Finger Injury**

**What happened**

A worker injured themselves while attempting to change a wire wheel attachment fitted to a handheld angle grinder. In that process, the IP fractured the 5th digit ('pinky') of the left hand between the table and a wrench.

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<p><b>Applicable Life Saving Rule(s)</b></p>	 <p>Hot Work</p>	 <p>Line of Fire</p>	 <p>Work Authorisation</p>
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## What went wrong

- The method being used to change the wire wheel was incorrect – the worker did not in fact know how to change the wheel;
- The worker had not received any formal power tool / abrasive wheel training and was not fully familiar with this type of equipment. Reliance was placed in ‘on the job’ training along with the IP’s experience, rather than on formal training and competence evaluation;
- The worker was not wearing impact resistant gloves;
- There was a failure of the safe system of work:
  - Grinding was not covered by the Hot Work Permit to Work;
  - The worker was not assigned to the Permit to Work;
  - A task risk assessment for the job was not reviewed.
- As grinding was not a planned activity, there was no supervision of the task - the appropriate level of supervision is essential.



## Actions taken by our member

- Updated task risk assessment to include all hazards and control measures;
- Required the worker in this specific case to take formal Power tool/abrasive wheels training;
- A review of general training and competency evaluation requirements for the use of power tool and abrasive wheels;
- Revisited and discussed supervisors’ responsibilities.

Members may wish to refer to:

- [Watch your hands!! person injured while using an angle grinder](#)
- [Hand injury from portable grinder](#)

Incidents reported to IMCA involving **grinders**, can be investigated here: <https://www.imca-int.com/?s=grinders>

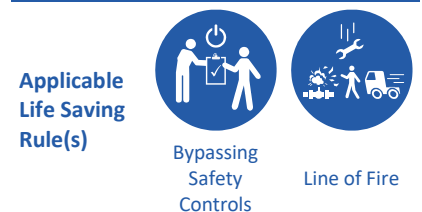
## 3 Crew member cut hand on broken glass during heavy weather

### What happened

A member of the galley team suffered a serious hand injury when washing a glass during a period of heavy weather. The glass being washed slipped, hit the sink, and broke. The glass fragments struck the injured person’s left hand, causing an injury requiring seven stitches. The vessel was rolling in seas of approximately 2.5m.

### Lessons

- Think carefully about what activities are conducted during bad weather – ensure crew have full awareness of the increased risks during heavy weather;
- Wearing gloves while washing dishes could have provided additional protection;





- Reducing the number of hand and finger injuries remains a significant challenge for the industry. In 2023 a fifth of incidents shared as IMCA Safety Flashes involved hand or finger injuries.
  - Take the time to stop and think things through
  - Can this be task be done in a safer, easier way?
  - Am I putting my hands at risk by doing this job?
  - Am I putting my hands where I can't guarantee their safety?
  - Am I putting my hands in the line of fire?
- Are **YOU** prepared to work safely?
  - See IMCA short video on [Hand safety](#)
  - See IMCA short video on [Line of fire](#)

Members may wish to refer to:

- [Head injury when crew member fell over in bathroom during heavy weather](#)
- [LTI: Damage and personal injury arising from heavy weather](#)
- [LTI: Fingers injured during fender lifting operation](#)

## 4 Arm injury from metal skip cover

### What happened

A crew member was disposing of waste at a skip on the deck of a vessel, when the heavy cover of the skip unexpectedly and accidentally closed. The cover struck the individual's arm, causing an injury. The crew member received first aid onboard and further attended a medical facility ashore. No bones were broken; the person was able to return to the vessel and continue with light duties.

### What went wrong

- The heavy metal skip cover was not adequately secured. ing before handling waste. The crew person did not secure the cover open when putting in the waste, and as a result the cover closed on his arm, causing injury.
- There was a lack of hazard appreciation - weight of skip cover and potential for injury was not considered.

### Lessons

- Lifting the heavy cover or lid of a skip with one hand and putting waste in with the other, might save time because it is quick - but it is certainly worth avoiding a possible arm or wrist injury by securing the cover properly before putting your hand and arm "in the line of fire";
- Check relevant closing and securing mechanisms to ensure they functioning properly to prevent accidental closing;
- Consider a "hazard hunt" to identify any similar latent conditions onboard.

Members may wish to refer to

- [Finger injury caused by incorrectly secured console cover](#)
- [Hand injury during closing of hatch](#)
- [Finger trapped and injured whilst moving hatch covers](#)

Applicable  
Life Saving  
Rule(s)



Line of Fire



Person puts waste in a skip – re-enactment

## 5 MSF: Serious hand injury – high pressure air

### What happened

The Marine Safety Forum (MSF) has published [Safety Alert 24-05](#) relating to a finger injury caused by a release of high pressure air. The incident occurred during a vessel fire drill; the fire team were being assisted with putting on Breathing Apparatus (BA) sets. The assisting crewmember inadvertently opened the BA set valve resulting in a release of high pressure air. As a result, the crew members' finger was impregnated by the high pressure air. The finger that was impregnated showed immediate signs of swelling and the medical support teams advised medevac by helicopter. The injured crew member required surgical treatment, to confirm the extent of the injury and ensure there was no debris injected, and to reduce the risk of infection and tissue damage.

### What was the cause

Investigation found that there was a momentary high-pressure air release from the Pilot Vent Hole - a safety feature in 300 bar rated cylinder valves. The injured crewmember must have inadvertently placed his finger over the Pilot Vent Hole at the moment there was a momentary release of pressure.

### Recommendations (MSF)

- When replacing a BA bottle on a BA set always ensure that the Cylinder Valve Handwheel connection is tightened as per manufacturer's instructions;
- After changing the BA bottle, pressurize the system and listen for any leaks. Test for bubbles caused by leaks using soapy water at the connection points. Tighten connections, if necessary, but close the main valve first;
- Ensure the pressure gauge reflects the correct pressure;
- Conduct a breathing check by inhaling through the mask to ensure air is flowing correctly;
- Verify the low-pressure alarm is functioning properly by momentarily turning off the air supply. When conducting planned maintenance checks the above should also be adhered to and checked;
- When putting on BA, manufacturer's instructions should be followed, and if any leaks are observed the main cylinder valve must be closed prior to tightening.

Members may wish to refer to:

- [Hydraulic injection injuries](#)
- [Stored pressure release – hydraulic oil](#)

Applicable  
Life Saving  
Rule(s)



Line of Fire

