

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: rope under tension moved and hit person's hand

What happened

A member of the crew suffered a serious hand injury when struck by a rope under tension. The incident occurred when equipment in the sea was being retrieved to deck. It was necessary to attach a winch rope to stabilize the equipment as it was hauled aboard. While the equipment was being maneuvered, the winch rope jumped the side of the slipway and snapped back hitting the injured person. He raised his hands as a brace and was struck in his right hand by the rope under tension.

An All Stop was called, and the crew member taken to the hospital for treatment. He was subsequently medevaced with the two smallest fingers of his right hand broken. Follow up examination indicated further complications which will require amputation of the distal tip of the right small finger.

What went wrong

- The underlying causes were:
 - The equipment being recovered was moving around owing to sea conditions, causing the winch rope to move also;
 - It had been thought that this would be a safe zone as this has not happened before;
 - The injured person was stood in a hazard area not recognized as such – there was no “No go zone” outlined;
- The root causes were:
 - There was complacency and potential risks were not identified;
 - The vessel was not designed to handle equipment in the way it was being done.

Lessons and actions

- Situational awareness: take a new look at how work is taking place, and try to recognize previously unnoticed new situations that place crew members in the line of fire;
- Better identify and mitigate dynamic risks during operations – if necessary, adapt plans to the weather and environmental conditions;
- There was a review of the work instructions for this activity;
- A “No-Go Area” during recovery was implemented;
- This task was redesigned to remove the risk as far as was possible.

Members may wish to refer to:

- [Rope under tension parted on deck](#)

Applicable
Life Saving
Rule(s)



Line of Fire



Position of crew at time of injury (re-enactment)

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- Line of fire near miss – almost a head injury
- Mooring incident: Mooring line slipped off and snapped back
- HSEQ Direct (<https://hseqdirect.com/>) has an excellent teaching resource on “*Avoiding hand injuries*”

2 Injuries during lifting operations

What happened

A member reports two separate lifting activities involving failure of lifting equipment and resulting in minor injuries to nearby personnel.

Applicable
Life Saving
Rule(s)



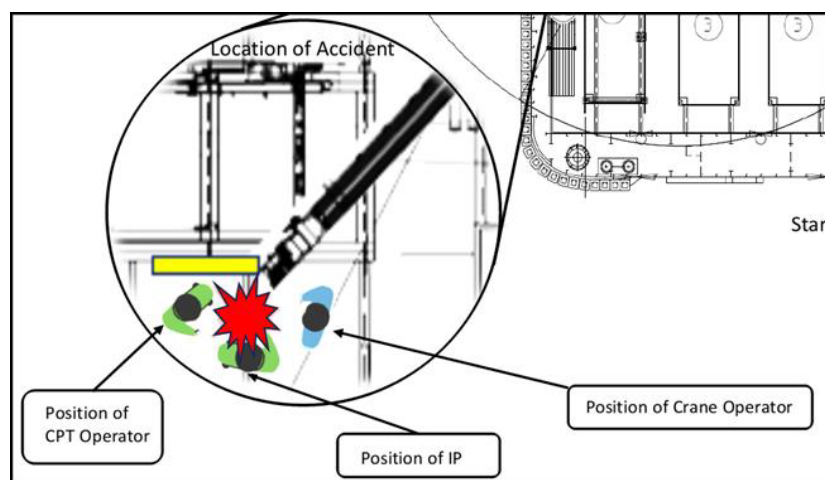
Line of Fire



Safe
Mechanical
Lifting

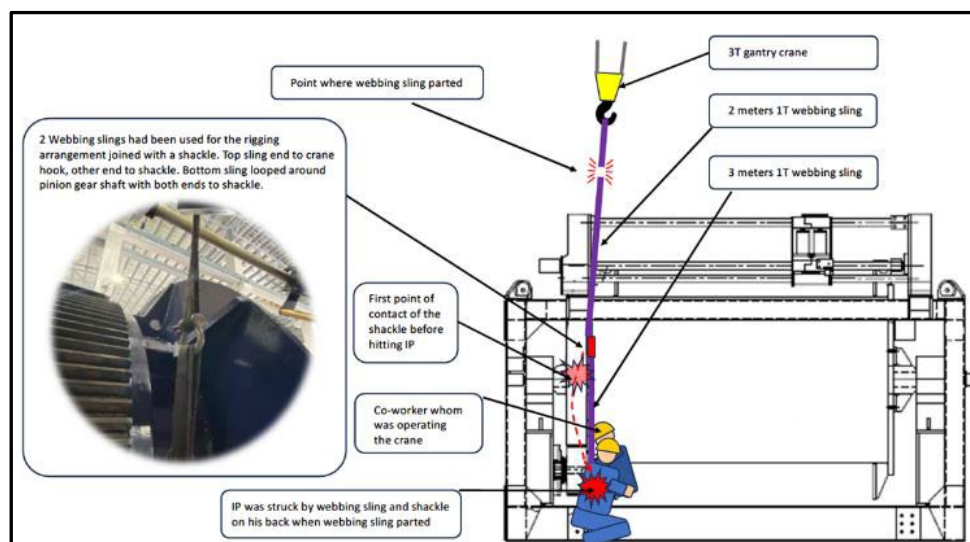
Event 1

While positioning for a lift the boom of a deck-mounted 1.5t folding crane was slewed and extended causing the overhaul ball to contact the sheave (two-block), resulting in the crane wire parting. The overhaul ball, lifting hook, and lifting chains (22.5kg) fell to deck from a height of approximately 6m. A member of the work party was struck and sustained a soft tissue injury.



Event 2

During the assembly of a LARS winch, an overhead gantry crane was being used for the final positioning of a component. The intent was only to use the crane for alignment of the component, rather than lifting, however excess load was inadvertently placed on the soft sling being used. This caused failure of the sling and the uncontrolled release of a connected shackle. The shackle struck a member of the work party again causing injury.



Lessons learned

While these two lifting activities were different, the investigations both identified common gaps related to operator training & competency, supervision, and understanding of line of fire risks.

- Only trained, competent, and experienced personnel should be involved in lifting operations;
- Supervisors need to actively supervise the work – and not be tempted to offer practical help or to join in;
- All personnel must be vigilant and keep themselves and others out of the line of fire;
- There is a shared responsibility for safety which exists between the supervisor – the person controlling the work and the people doing the work.

Members may wish to refer to:

- [IMCA safety promotional material on Line of fire](#)
- [Near-miss: Dropped clump weight](#)
- [Dropped object near-miss: Falling crane block](#)
- [Rigging failure during riser recovery – soft slings parted](#)

3 Finger injury during manual handling

What happened

An IMCA's members' utilities supplier in the United States reports a serious finger injury during manual handling. Crew on a land-based site were working on some large (3m x 4m) steel frames used for shoring. The crew were disassembling the shoring. Most of the disassembly was complete when a steel bar weighing around 100kg became dislodged as it was being manually manoeuvred by a crew member. The steel bar was sitting on a curved pick-ring which caused it to roll onto the crew members' finger. His finger was crushed, necessitating hospital treatment.

What went wrong

The crew were manually handling the steel frames rather than using tools to do the job and so keeping hands and fingers out of the line of fire.

What are the lessons

- When dismantling large pieces of equipment, make sure every single piece is secure from sudden movement before it comes apart;
- Use correct lifting tools rather than hands, and so keep out of pinch points and the line of fire;
- Ensure familiarity with loads and equipment being handled before starting: this may be particularly true for third-party or rented equipment.

Members may wish to refer to:

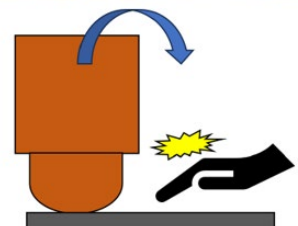
[IMCA safety promotional material on Line of fire](#)

- [LTI: Finger crushed while moving mobile gantry crane](#)
- [Finger injury during lifting operations](#)
- [LTI: Fingers injured during fender lifting operation](#)

Applicable
Life Saving
Rule(s)



Line of Fire



4 Acetylene gas explosion

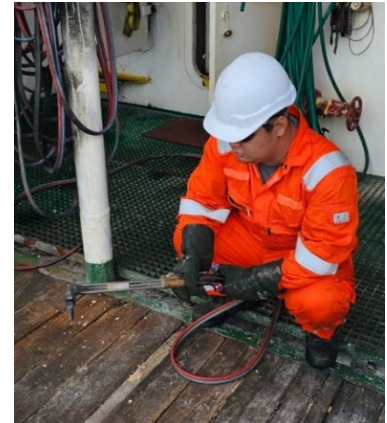
What happened

There was a small explosion and fire when crew were working on an oxy-acetylene system. Two engineers were setting up a new oxygen and acetylene cylinder for testing. They installed a flash arrestor and hoses on the cylinder, ensuring they were free from oil and grease. One of the engineers opened the nozzles of the oxy-acetylene bottle, igniting flames at the nozzle tip. A small explosion occurred, followed by flames from the acetylene hose connection on the torch. The hoses burst within seconds, causing that worker to get burnt. The other engineer pulled the injured person to safety. The fire was extinguished using a dry powder fire extinguisher. The injured engineer suffered first-degree burns.

Applicable
Life Saving
Rule(s)



Hot Work



Showing equipment damaged (re-enactment)

What went wrong

- At the time of the incident, there was no Hot Work Permit in place;
- The person injured was wearing no proper PPE (welding apron, appropriate coveralls, or goggles);

What was the cause

- The Oxygen/acetylene torch was not equipped with adequate flame or flashback arrestors;
- There had been excessive bending of the hoses which had led to a compromised flow of gas and increased risk or rupture under pressure;
- There was faulty equipment: The hose crimps on the cutting valve (acetylene) were faulty which led to the flashback occurring.

Lessons learned

- Fit flash arrestor to both the oxygen & acetylene gas hoses near to the regulators, for length hose, fit arrestor on both the torch and regulator;
- The fitting of a flashback arrestor is not a substitute for safe working practices. After a flashback, carefully check for damage to the torch, hoses, regulators, flashback arrestor and other components, if found faulty replace the parts.

Members may wish to refer to:

- [Proper care of oxy-acetylene cutting and welding equipment](#)
- [Ruptured acetylene hose: Fire](#)
- [Hose fire caused by flashback in oxygen and acetylene hoses](#)
- [Cutting torch hose separates from flame arrestor](#)

5 Crane cab fire caused by fridge

What happened

On a vessel alongside, there was a fire in the cab of a crane. At 03:52 the fire alarm panel on the bridge sounded, displaying an indication that fire detection within the crane cab had activated. There were no work tasks being conducted on the crane at the time of the alarm. Two team members were sent to investigate. Upon accessing the crane cab platform, the attending riggers confirmed there was a fire within the crane cab.

The fire was confined to the crane cab, which was destroyed. The incident is suspected to have originated from an electrical fault within the small refrigerator located in the cab.

During the incident, the challenge of accessing the area with firefighting equipment was identified as a significant issue.

Members may wish to check small appliances of this nature that may be left powered in an unsupervised place for long periods and identify areas where access with emergency equipment may be restricted.



Members may wish to refer to:

- [Fire in ROV workshop](#)
- [USB power bank \(Lithium battery\) fire](#)
- [Fire in the accommodation: electronic items in cabins](#)