Safety Flash

10-24 – May 2024

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 Hand and finger injuries

Applicable Life Saving Rule(s)

Bypassing Safety Controls

Line of Fire

What happened

Hand and finger injuries continue to be a significant theme in the incidents shared with IMCA by its members. This is a summary of two recent examples from members.

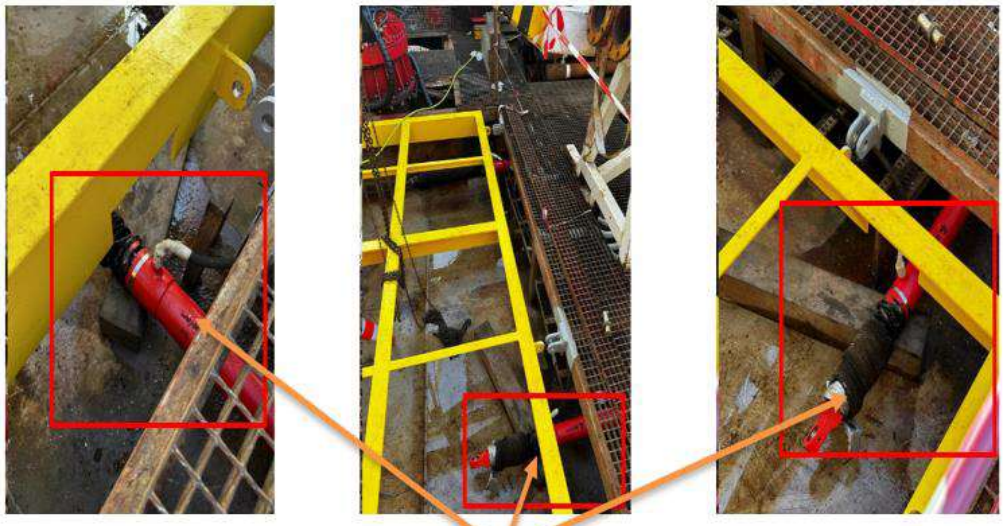
STOP! Take the time to think things through before starting work. Your hands and fingers are the best tools you have – and you only have one set of them.

Incident 1: Crush injury to right hand small finger

A worker suffered a crushed right little finger whilst moving the moonpool door ram. The ram was placed on a flat pallet at the time, so the potential for movement was high. The movement of the ram crushed the worker's finger causing a spit in the skin and a fracture.

What went wrong

- Although a toolbox talk had been conducted, including a basic risk assessment for manual handling activities, the full scope of the work had not been adequately assessed;
- No-one stopped to think and reassess the additional hazard: that the ram would move, was not foreseen.



Moonpool door opening ram post incident

Lessons

- Look at the ENTIRE situation – consider the use of ABBIE (Above, Behind, Below, Inside and Environment);
- Ensure task-specific risk assessment is sufficiently thorough;
- If the job changes – **STOP**, re-assess, if necessary, activate a "Management of Change" process;
- Remember you can and should **STOP THE JOB** if you think it is unsafe – don't just carry on!

Incident 2: First Aid Case – OUCH! A completely unnecessary hand injury

When removing the ceiling plates in the main deck instrument room, a worker cut his hand on a ceiling plate, which had sharp edges. The worker was not wearing gloves – as should have been the case. Wearing gloves would have prevented the injury.

Lessons

- Watch where you put your hands! It's so easy just to do it – DON'T! **STOP and THINK;**
- PPE is there for a reason – **use it**. Gloves you can replace: fingers and hands, you can't.

Members may wish to refer to:

- IMCA video – *watch your hands*
- Worker cut hand on broken mirror
- LTI: Loss of fingertip and nail

You can browse the database of incidents yourself here: https://www.imca-int.com/safety-events/ and type in “finger” or “hand” in the search box to review 192 or 732 incidents respectively!

2 Crewmember suspended above deck by lifting equipment

What happened

On a CTV (Crew Transfer Vessel), a crew member’s work restraint lanyard became entangled in a hook and wire sling, and the crew member was lifted off the deck. The incident happened during lifting operations offshore at a wind turbine. A deckhand and trainee deckhand were both on deck receiving a load of four lifting bags, attached by a three-leg wire sling. The trainee landed the load, detached the load from the slings, and signalled the crane operator to raise the lifting equipment. As the hook and wire sling raised, it became entangled within the trainee’s work restraint lanyard, and he immediately gave the signal to emergency stop. The crane operator neither saw nor heard the signal, so the trainee was lifted from the deck. The trainee’s weight freed the entanglement, and the crew member fell unharmed between 1 to 2 metres onto a group of lifting bags on deck.

Why did it happen

Our member noted the following:

- The crew member’s lanyard was worn in a loose position where it could become easily snagged;
- The crew member was too close to the lifting equipment when it was raised, without a tag-line or holding onto the equipment to guide it free of entanglement;
- The crane operator neither saw nor responded to the emergency stop signal.

The potential consequences of a major injury or worse were present had the crew member been lifted higher, outboard of the vessel, or without a cushioned landing.

Lessons learned

- Ensure that lanyards are properly secured and are kept away from entanglement / entrapment hazards, such as lifting accessories, moving parts, etc.;
- Ensure that all lifting accessories are fully clear of any potential snagging points, including the path of any lifting accessories, before instructing the crane operator to raise the equipment;
- Step away from any lifting accessories or manually guide any lifting accessories away from you before signalling a lift, to prevent any snagging;
- Never assume that someone will be aware of a hazard, especially less experienced colleagues – always speak up and be prepared to **STOP THE JOB**;
- Always ensure that clear lines of communication are open during the lift and during the recovery of rigging equipment;

- Always pay attention during a lifting operation, even where there is no load or the lift is underway, and the lifting accessories are believed to be clear of obstructions.

Members may wish to refer to:

- Snagged load, a sling snaps, dropped objects: persons injured
- Man overboard from anchor handler tug

3 CTV crew member snagged on tag line and lifted off feet

Applicable Life Saving Rule(s)

Safe Mechanical Lifting

What happened?

After a routine lift had been landed over the stern to a CTV foredeck, the CTV crew member gave the signal to raise the crane hook. While the hook was being raised, he stepped forward to guide the slings clear of snagging points on the CTV. A tag line attached to the slings snagged or became entangled on carabiners connected to his harness, and he was lifted about 0.5m clear of the deck. The lift was quickly stopped by the banksman, and the crewman lowered back to the deck unharmed within a few seconds.

Hook position on the worker's harness before entanglement with tag line

Hook position on worker's harness once the tag line got tangled

What went right and wrong?

- Right? There was a quick response by the banksman and the crane operator;
- Wrong? The crew member was in a hazardous place or position without appreciating the fact.

What are the lessons?

- Think about where you're standing on deck, particularly during mooring or lifting operations.
- The CTV operator is reviewing procedures and discussing the incident with crews.

Members may wish to refer to:

- Snagged load, a sling snaps, dropped objects: persons injured
- Man overboard from anchor handler tug

4 Engine failure and subsequent engine room fire

What happened

There was a catastrophic failure of a diesel generator on a vessel working offshore. The failure of the generator led to engine components being ejected by force, which in turn started an engine room fire. The Hi-Fog fixed firefighting system was activated, non-essential personnel were mustered, and onshore emergency response teams were assembled. Additional emergency procedures were deployed with fire teams instructed to assess the engine room conditions. Onshore emergency response teams stood by to support the vessel in case of need. The fire was extinguished with limited damage to any further machinery.

No-one was harmed. The vessel subsequently left the field for a port call before undertaking extensive dry dock repairs.

Findings – what went right and wrong

- Catastrophic failure within one diesel generator caused the engine room fire;
- Another diesel generator was damaged as a consequence of the force of ejected materials/components;
- The Hi-Fog fixed firefighting system worked and provided good extinguishing capabilities and allowed emergency teams early access to affected areas;
- Fire-suits and associated equipment provided good protection from heat and fire and communication and firefighting personal protective equipment (PPE) proved very effective;
- The offshore vessel management team and the emergency teams onboard demonstrated highly effective leadership in managing their response, addressing problem solving during the emergency as well as acting in a quick, decisive and effective way.

Lessons

- A Thermal Imaging Camera could be useful in support of firefighting teams;
- Ensure that persons on emergency response teams ARE familiar with all applicable emergency procedures;

- Introduce fire booklets at each fire station. These should give details on the general layout, equipment, search routes, isolations, length of hose runs of each major area or compartment of concern;
- Review and revise emergency response plans to determine if the chosen communications are correct and ensure that shore-based management are informed at the earliest opportunity.

One hundred events or incidents relating to "Engine room fire" can be searched by clicking here: https://www.imca-int.com/safety-events/?searchitem=engine+room+fire

Members may particularly wish to refer to:

- Fire at sea – some timely reminders (Safety4Sea)
- Vessel engine block blown open in and around cylinder

5 BSEE: Welding and Burning Hazards

Applicable Life Saving Rule(s)

Bypassing Safety Controls | Hot Work

The Bureau of Safety and Environmental Enforcement of the United States (BSEE) has released Safety Alert 482 entitled *Risk Based Inspection Identifies Welding and Burning Hazards.*

What happened

Following inspections on production and well operation sites in the Gulf of Mexico and an analysis of compliance and incident data since 2022, BSSE discovered multiple high potential fires associated with welding and burning operations. Several critical issues were identified requiring attention to ensure the safety and integrity of ongoing operations. In one incident, evidence suggests hot slag from a cutting torch pierced the underside blanket barrier of the living quarters building. The residual heat likely caused the wood subfloor to ignite.

What went wrong

Inspections revealed the following:

- Hot work being conducted close (less than 10m) from equipment containing hydrocarbons;
- Inadequate housekeeping practices, with material like cardboard boxes found within 10m of hot work areas;
- Tools for fire prevention, such as fire extinguishers and portable gas detectors, not properly identified as necessary;
- Offshore personnel not following safe welding and hot work procedures;

Fire spread to living quarters following hot work

- Inconsistent and infrequent training for personnel engaged in hot work and/or welding – that is persons without training or coding to the appropriate industry standard, were engaging in hot work;
- Hot work permits and Job Safety Analyses (JSAs) listing the same person to perform fire watch **and** perform the hot work!

What should be done

The BSEE recommendations can be summarised thus:

- Ensure there are no flammable materials or hydrocarbons or other fire hazards nearby when preparing for hot work;

- Ensure the rating, current condition, and placement of fire protection barriers mitigate the potential risk caused by hot work, including personal protective equipment;
- Ensure a heightened level of planning specific to the hazards associated with welding and burning operations – **stop and think for a minute, are we doing this safely?**
- Check that training and competence requirements for persons doing hot work are in place and that they meet appropriate industry standards;
- Hot work operations should be inspected by someone in charge before starting work; adequate supervision and fire watches should be in place throughout;
- Ensure that all persons involved in hot work attend and participate in pre-job JSA meetings and toolbox talks and that they fully understand what is required of them.

Members may wish to refer to:

- Hot work whilst working at height in a confined space – job was stopped
- Poor control of work in dry dock
- BSEE: Poor preparation prior to hot work leads to fires