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 Yawing of wind turbine nacelle placed ship in line of fire

Applicable Life Saving Rule(s)

Line of Fire | Work Authorisation

What happened

A wind turbine started yawing, placing an approaching vessel in the line of fire. A turbine nacelle had been confirmed as locked on requested heading and permission had been given for the vessel to enter the turbine safety zone. The vessel entered the safety zone, connected, transferred technicians to the turbine via walk-to-work gangway, then completed cargo transfer to the transition piece (TP) using the ship's crane.

The vessel then moved off from the TP and was about to start moving astern (in the direction of current flow) when it was noted that the nacelle heading was about 50 degrees different to that requested, with a turbine blade directly in the vessel's intended path. The move was cancelled and the ship moved ahead, away from the blade disk, on DP joystick auto-heading. The safety zone was exited without further event.

Photo: https://www.offshore-mag.com

What went wrong?

The new, oncoming crew on the turbine tower yawed the nacelle using local controls, assuming that the vessel had moved clear, not considering time taken to complete cargo operations. There was no communication with the bridge or client crew before starting the move.

What were the causes?

- Lack of situational awareness;
- Failure to follow established communication protocols.

Lessons learned/actions taken

- Operator's procedures were reviewed and teams reminded of the requirement to receive **positive confirmation** that vessels are clear before moving the nacelle;
- As engineering-based Lockout/Tag-out controls are not practicable, procedural/administrative controls were made more robust;
- Operator's communication protocols were strengthened and communicated;
- Reminder stickers 'WAIT FOR GREEN LIGHT BEFORE YAWING' were placed on all control boxes.

Members may wish to refer to:

- Near miss: vessel approach to wind turbine tower

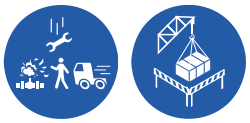
2 What are audits for? Some eCMID findings

eCMID is IMCA's well-respected safety management system health-check for offshore vessels – an electronic version of the *Common Marine Inspection Document*. The results here are from 769 eCMID inspections, conducted in the 12 months to April 2021. They make interesting reading, for there are some areas of grave concern.

eCMID finding	Similar IMCA events or incidents	
• **Confined space entry**: 65 vessels were found to not have provision for entry into enclosed/confined spaces. Safe management of confined space entry remains, literally, a deadly issue for the shipping industry;	• Confined space entry fatality • Crew member fainted after working in water ballast tank • Confined spaces: silent and invisible killers	
• **Chemicals and flammable/combustible materials** – 69 vessels did not have any procedures for control , stowage and handling of chemicals and flammable/combustible materials;	• HSE: Allergic reaction at work • Inadvertently drinking hazardous substances • Unlabelled containers: Chemicals stored in drinking water bottles	
• **Firefighting:** 59 vessels did not have up to date manuals and plans for firefighting equipment, and 45 vessels had defects recorded on their fire fighting equipment;	• Catering crew unfamiliar with firefighting systems and emergency stops • NTSB: Fire on laid up Dive Support Vessel • Tumble dryer fire: lint ignition	
• **Watertight doors and closures:** 47 vessels had issues with watertight closures;	• Incidents relating to hatches and doors • Seawater entering cabin caused electrical fault • Lost time injury (LTI): Finger injury - watertight sliding door	
• **Bridge, navigation and communications equipment:** 60 vessels failed to maintain the gyro & mag compass error log, and 47 vessels reported that their SOLAS communications and navigation equipment was not available for use;	• USCG: Automatic identification system (AIS) inaccuracies led to fatalities • MAIB: Grounding of general cargo vessel Kaami • Collision whilst drifting	
• **Engine room house-keeping:** 64 vessels had poor engine room house keeping, and 61 vessels reported poor working practices within the engine room;	• Near miss: engine room hatch left open without barriers • LTI: engineer injured following engine room slip/trip • Engineer suffered burn injuries in engine room incident	
• **Mooring, towing and lifting equipment:** 96 vessels did not have an adequate lifting equipment management system, and 51 vessels reported defects on mooring/towing equipment	• Mooring incident: mooring line slipped off and snapped back • Dropped object during lifting operations • Lifting basket with unsecured cargo which fell out	

3 Failed lifting equipment: fatality during pipe erection activities

Applicable Life Saving Rule(s)



Line of Fire | Safe Mechanical Lifting

A member passes us information relating to a non-IMCA fatality at an oil refinery. Lifting equipment failed and a wire rope hit a crew member, causing injuries which proved fatal.

What happened

A crew were lifting a 30cm (12”) pipe using manual lifting tools (wire/rope pulling hoists and pulleys) to lift the pipe. Both pulleys were attached to the upper beams of the pipe rack and the pipe was slung at its both ends. The pipe was being lifted simultaneously with both wire rope pulling hoists and pulleys. Before the incident, the person who was hit was on a scaffolding while the pipe was being lifted.

Suddenly the pulley above the person broke and the wire rope around the pulley and the pipe went down. The wire rope hit the person on its way down. Medical treatment was given onsite; he was then transferred to hospital where after several hours he passed away.

This incident is not in the public domain.

Images of failed pulley

4 UK HSE: Employee fatally injured while moving heavy equipment

Applicable Life Saving Rule(s)

Bypassing Safety Controls | Line of Fire

The UK Health and Safety Executive (HSE) has fined a company an employee was fatally injured while moving heavy machinery. Press release here.

What happened

Workers were moving a large and heavy milling machine using a forklift and machine-moving skates. During the work the machine became unstable and toppled over onto one of the workers, causing fatal head injuries.

What went wrong?

Investigation found that company had failed to:

- Assess and plan the task of moving the machine;
- Determine a safe system of work;

- Provide clear instructions to the workers;
- Supervise the activity.

In addition, the skates used were not adequately maintained nor subject to a suitable inspection programme to ensure that they were safe to use. The inspector noted that *"the lifting and movement of heavy machinery is a specialist and often complex task requiring significant planning, expertise, knowledge and specialist equipment to ensure the risks are controlled."*

Members may wish to review the following similar incidents:

- Serious leg injury from falling winch sheave
- Fatal incident during change-out of chain wheel (gypsy) on anchor handling tug supply (AHTS) vessel
- Member of the public killed following unplanned movement of an unsecured load
- Lifting complex loads - offloading third party equipment

5 LTI: person injured when hook parted during lifting operations

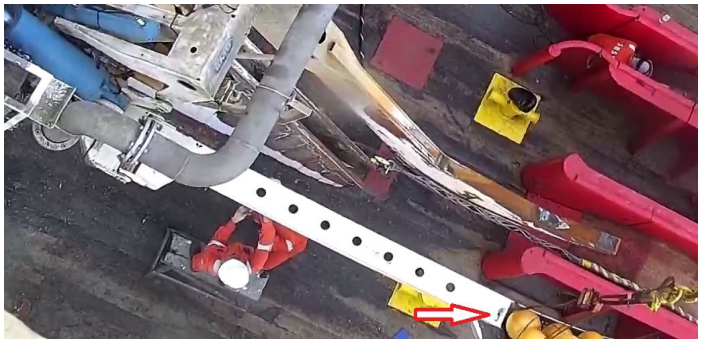
Applicable Life Saving Rule(s)

Bypassing Safety Controls | Line of Fire | Safe Mechanical Lifting

What happened

Two crew were stood under a 3m depth skid of a cable installation plough calibrating it when part of the rigging holding the plough parted causing it to fall on them, injuring them both.

The plough depth skid, weighing around 320kg, was lifted at one end by the vessel crane; a fixed pad eye at the end of the skid was attached by a hook, sling and chain block. Suddenly the hook parted, and the depth skid fell down, knocking over both crewmen. Both landed badly; one of them sprained his leg; the other suffered a fractured wrist. Both were sent ashore by guard boat for medical treatment. Subsequent medical check showed that one of them suffered fractures of the left wrist and radial head (below the elbow).



Crew working under the depth skid which is lifted by crane. The red arrow shows the parted hook.

The skid in the fallen position

What went wrong?

- It was shown afterwards that because the pad eye on the plough depth skid was too small for a standard hook, the crew used an entirely inappropriate spring snap hook to link the skid and the sling;
- The two crew were in the wrong place – under the load, in the line of fire.

Actions taken

- Further crew training on correct lifting loose gear application, emphasizing that unqualified loose gear should not be used for any lifting work;
- The pad eye was modified and tested so that a standard and properly qualified hook can be used;
- Hazard Identification and Risk Assessment form for plough operation was reviewed and revised:
  - To include safe positioning of crew and,
  - To enhance supervision by requiring the team leader to check safety positioning.

Members may wish to refer to:

- Gangway damaged when lifting line parted
- Near-miss: Winch wire parted and crane block dropped
- Fatal injury during lifting operations - Maersk Interceptor
- Near-miss: Anchoring of rigging to uncertified points