

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.

## 1 Main Crane failure during load test

### What happened?

While performing the overload load test at maximum load plus 10% on a heavy lifting offshore crane, a major failure occurred. At maximum load, the crane main block wires broke and the testing load (two cargo barges) fell, along with the main block, into the water. As a result of the loss of load, the vessel listed to approximately 9 degrees. There were no injuries.



### What went wrong

- Mechanical failure on the clutches of certain of the main hook double drums. Since the main hook wires were reeled on four drums, when the load at the hook reached maximum (barges completely out of water) the clutches of two drums, #3 & #4 (starboard side of the hook) slipped on the transmission disk and the drum lost torque, while the other two drums, #5 & #6 (port side of the hook) were still pulling. This generated an unbalanced load on the main hook, beyond any normal compensation system, with concentration of stress on the port side half of the block assembly where the load ultimately exceeded the wire Maximum Breaking Load with consequent breaking of wires and the total loss of the load.
- Clutch pad failure. The recently installed clutch pads lost their holding properties at maximum crane load. During the investigation it was found that the failure of the clutch pads was linked to the lack of proper burnishing of new pads.

### Lessons

- Perform burnishing of clutch pads as per manufacture's procedure;
- Implement a clutch torque test to verify the holding torque of the pads as per new manufacture's procedure;
- Include in the planned maintenance systems the pads burnishing procedure and torque test with the frequency recommended by the manufacturer;
- Revision of crane FMEA, including review by competent persons.

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Members may wish to refer to IMCA [Information Note 1664](#) which outlines the caution to be taken when renewing brake frictional components (i.e. brake/clutch pad/discs) that are integral to the safe functioning of a crane.

## 2 AC vent unit cover dislodged and fell 1.7m

### What happened

On a pipelay tower, the AC cover of a capstan electrical cabinet became detached and fell approximately 1.7 meters. The cover was found resting on a cable attached to the platform and diagonal tubular brace. There were no injuries. However, there was potential risk to individuals working nearby. Our member, based on information from the industry “[DROPS calculator](#)”, has treated the incident as it if were a Lost Time Injury (LTI).

Crew were working in the pipelay tower when they heard an unknown noise. They stopped to investigate the source of the noise and found that an AC unit vent cover had become detached from the capstan winch PLC cabinet.



*Cover in its final resting place*



*Failed aluminium rivets*

Work was stopped immediately under “Stop Work Authority”. The integrity and rivets of the remaining air conditioning units on the tower were inspected, along with a security assessment of the remaining covers. It was also confirmed that there was no damage to the electrical cable the cover contacted.

### What went wrong

Initial investigations detected a failure of the securing rivets caused by **galvanic corrosion**. When aluminium and stainless steel are combined in an assembly, electrons from the aluminium migrate into the stainless steel causing the aluminium to weaken and deteriorate at an accelerated rate.

### Actions

There is potential for a similar incident to occur on similar vessels.

- Inspect all similar cabinets / equipment and change out any incompatible fixings;
- Review existing dropped object checklists and/or work orders and update as required;
- Verify during routine dropped object inspections of equipment at height, that primary and secondary fixings and safety securing lanyards are all compatible;

- Update Planned Maintenance work orders where required.

Members may wish to refer to:

- [DROPS Reliable Securing Manual – MOS -HSE-140 \(page 8\)](#)
- [Failure of self-righting frame on Fast Rescue Craft \(FRC\)](#)
- [Near miss: Floor Plate fell from Main Mast during storm](#)
- [Electrolytic corrosion: failure of fire hose couplings](#)

### 3 Dropped sheave and clump weight

#### What happened

A high potential dropped object incident occurred when a sheave weighing 204kg fell 64m to deck, and a clump weight weighing 700kg fell onto equipment causing damage. There were no injuries. The incident occurred during routine installation activities for a wind turbine monopile. A spreader bar with lift tools was disconnected from the main block and tuggers, and preparations for lifting a Transition Piece then began. The deck operations involved tasks for three rigger teams and a forklift operator. The rigger teams unhooked the rigging and connected the clump weight to winch #5. The foreman instructed the crane operator to hoist winch wire #5 into a storage position and to lift up the main block. Shortly after that, a request was made to lower winch wire #1 to the main deck. Thus, three different winches were operating simultaneously.

During the hoisting of the winch wire #5, the clump weight was pulled into the sheave, causing activation of the winch overload alarm. Although the crane operator promptly moved the joystick to the "0" position, it was too late. The clump weight had already been pulled into the sheave causing the sheave to break; both the sheave and the clump weight then dropped to deck. The sheave (204 kg) dropped from 64m and bounced, narrowly missing a forklift truck. Nearby crew found it necessary to take cover. The clump weight (approximately 700 kg) dropped onto the umbilical winch, resulting in a hydraulic oil spill on the main deck.

Both dropped objects could have resulted in a fatality or multiple fatalities.

#### What went wrong?

The investigation revealed that:

- The Crane Operator was performing simultaneous tasks requiring full concentration;
- Neither the Crane Operator nor the Rigger foreman had eyes on the tugger wire / clump weight;
- The tugger winches had no automatic alarm settings with automatic stops.

#### What are the lessons?

- Doing more than one thing at once – **DON'T!**
- When performing lifting operations, the banksman should always have eyes on the lift and make sure the area below the lift is clear of people;
- Be aware of the limitations of your equipment and **stop the job** when it cannot be performed safely.

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**Applicable  
Life Saving  
Rule(s)**



Line of Fire



Safe  
Mechanical  
Lifting

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*Clump weight and sheave*

Members may wish to refer to:

- [Near-miss: Dropped clump weight \(2009\)](#)
- [Near miss: dropped clump weight \(2020\)](#)
- [Crane contact with pipelay tower resulting in dropped object](#)

#### 4 UK HSE: Incident during rig decommissioning leads to fatality

The United Kingdom Health and Safety Executive (HSE) has published a [press release](#) relating to an incident whilst decommissioning a North Sea gas rig, in which one person died and another was seriously injured.

##### What happened

Two men were working as demolition operatives, also known as “Top Men”, undertaking the decommissioning and dismantlement of offshore structures which had been brought ashore. The two workers were removing an overhanging piece of metal pipework (known as a skirt pile), weighing in excess of 27 tonnes, from a gas rig jacket when it gave way. The pile struck the mobile elevating work platform (MEWP) containing the men, throwing them to the ground about 12 metres below.

One worker died at the scene and the other suffered serious life-changing injuries.

##### What went wrong

HSE investigation identified:

- Serious failings with the planning and the risk assessment which did not adequately cover the planned works;
- Shortcomings in supervision;
- The company did not risk assess the skirt pile being removed as it was considered low risk. As a result there was no cutting plan or safe system of work for the skirt pile.

HSE noted that demolition, dismantling and structural alteration work must be carefully planned and carried out – HSE has guidance on this.



After the hearing, the HSE inspector noted: *This incident, in an emerging industry, highlights the level of controls required to safely demolish what are large, dangerous structures. These standards were not met and tragically one life was lost, and another forever changed.*

Members may wish to refer to:

- [UK HSE: worker died following fall from crane platform](#)
- [Fatality: Fall from height in shipyard](#)
- [Near miss – grating dislodged and fell, leading to crewman slipping](#)
- [Raising awareness on safety barriers such as railings and gratings](#)

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Applicable Life Saving Rule(s)



Bypassing Safety Controls

Working at Height

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*Where the workers fell*



*The skirt pile gave way and struck a mobile elevating work platform*



*Emergency services attended the scene following the incident*

## 5 Positive: successful rescue of surfer on the open sea

### What happened

The crew of a small pilot boat at sea spotted a surfer in distress. The skipper of the boat approached the area and using the vessel's megaphone communicated with the surfer who acknowledged that he was in distress. The MOB ramp was then deployed so that the surfer could safely board the boat. After the surfer was safely aboard, the pilot boat informed the local authorities and the company, and went to port where the local authorities arrived to receive the surfer.

The crew quickly identified the distressed seafarer and acted promptly, demonstrating excellent vigilance and responsiveness.



### Recommendations

- **Maintain Vigilant Watch:** Ensure crew members are always alert and attentive to their surroundings to quickly spot any signs of distress or emergency situations at sea;
- **Regular Emergency Drills:** Conduct frequent training and emergency drills to prepare the crew for various scenarios, enhancing their readiness and response time;
- **Equip with Proper Safety Gear:** Ensure all vessels are equipped with essential safety equipment, including life jackets, lifeboats, flares, and communication devices, and regularly check their functionality;
- **Establish Clear Communication Protocols:** Develop and maintain clear communication protocols for emergencies, ensuring all crew members know how to relay information swiftly and effectively;
- **Stay Updated on Weather Conditions:** Continuously monitor weather reports and sea conditions to avoid dangerous situations, and make informed decisions about navigation and rescue operations;
- **Collaborate with Other Vessels and Authorities:** Establish communication channels with nearby vessels and maritime authorities to coordinate efforts and share information during rescue operations.

Members may wish to refer to:

- [And finishing on a positive note: A CPR success story – “we saved a life that day”](#)