

IMCA Safety Flash 22/19

September 2019

These flashes summarise key safety matters and incidents, allowing wider dissemination of lessons learnt from them. The information below has been provided in good faith by members and should be reviewed individually by recipients, who will determine its relevance to their own operations.

The effectiveness of the IMCA safety flash system depends on receiving reports from members in order to pass on information and avoid repeat incidents. Please consider adding the IMCA secretariat (imca@imca-int.com) to your internal distribution list for safety alerts and/or manually submitting information on specific incidents you consider may be relevant. All information will be anonymised or sanitised, as appropriate.

A number of other organisations issue safety flashes and similar documents which may be of interest to IMCA members. Where these are particularly relevant, these may be summarised or highlighted here. Links to known relevant websites are provided at www.imca-int.com/links Additional links should be submitted to info@imca-int.com

Any actions, lessons learnt, recommendations and suggestions in IMCA safety flashes are generated by the submitting organisation. IMCA safety flashes provide, in good faith, safety information for the benefit of members and do not necessarily constitute IMCA guidance, nor represent the official view of the Association or its members.

1 Grease Itself is a Dropped Object!

What happened?

During crane operations on an offshore vessel, quantities of grease fell from the crane block and landed on deck. The incident occurred in daylight, when a wellhead head was landed into its frame on the starboard side main deck. Riggers were stood by in a safe area ready to work on the load, when the client representative (who was present) heard a 'splash' sound and noted grease lying on the deck directly below the crane block.



This was a near miss; there were no injuries.

What went wrong? What were the causes?

The engine room crew greased the crane wire using the recommended greasing tool. The crew paid out the wire to 2800m, rinsed the wire and lubricated with the core lube pneumatic lubricator "Enviro X-433 EAL". 2 x 19l pails were used.

The increased water pressure, combined with the increased wire temperature, caused the grease to come out of wire (could be mixture of original grease and the newly applied grease).

The crane manual does not provide a recommendation on the amount of grease to apply to the wire.

What actions were taken?

- ◆ Crane operations were stopped; the crane was racked and cleaned of excess grease;
- ◆ Crane pre-use checklist and toolbox talk (TBT) to include dropped grease hazard, both updated to include potential dropped objects and highlight potential for falling grease;
- ◆ Visual inspections on the accumulation points and removing excess grease.

What lessons were learned?

- ◆ Although classified as a liquid, crane grease is slightly viscous (between solid and liquid) and once a certain amount accumulates, it will drop to a lower level;



- ◆ Accumulation points are mainly the chandelier and sheave;
- ◆ Crane wire grease should be considered a dropped object;
- ◆ A **'dropped object'** is any item that falls from its previous position.

Members may wish to refer to:

- ◆ [Near miss: Dropped Object From Crane](#)
- ◆ [Near miss Dropped Object: Protector Plate Drops From Crane](#) [*"These incidents serve to highlight the need to pay further careful attention to crane maintenance and to the clear risk of parts falling from the crane itself, in addition to managing the risk of objects falling from the load."*]
- ◆ IMCA DROPS videos:
 - [Technip DROPS](#) (IMCA SEL 039)
 - [Saipem DROPS - choice not chance](#) (IMCA HSSE 042)
 - [DROPS](#) (IMCA HSSE 043) [shared by Subsea 7]

2 Dropped Wooden Block in Conductor Support Frame

What happened?

During a decommissioning project, a wooden wedge, weighing approximately 13 kg, dropped 6m, striking a rigger's hard hat and shoulder on its way down. The rigger suffered minor cuts; it was fortunate that his injuries were not more serious. The incident occurred during decommissioning operations using a conductor support frame (CSF) to help with the removal of conductors. Conductors were pulled into position in the CSF by crane. To reduce horizontal movements, wooden wedges were installed, whilst the conductors were being cut in smaller sections. During removal of the wedges, one of the wedges fell and struck the rigger.

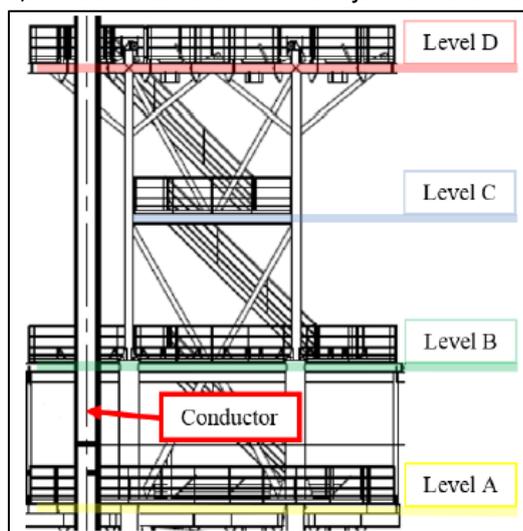
What went wrong?

As per company procedure, the wedges were to be placed into position at level B, to remove any horizontal movements of the conductor. To reduce movements from the top of the conductor, additional wedges were installed at level D (top level) of the CSF; *this addition was not part of any procedure.*

After completion of the sectioning cut at level A, the rigging team started to remove the wedges installed at level B, as per original procedure. Whilst removing the wedges at level B, one of the wedges installed at level D dropped to level B striking one of the riggers.

The investigation revealed that:

- ◆ Procedures had not been updated to include the additional wedges at level D;
- ◆ Management of change (MoC) was not implemented/followed;
- ◆ There was a failure of the wedge securing eyes due to vertical movement of the conductors caused by vessel/platform movement;



- ◆ It was not identified that removal of the (upper) level D wedges prior to removal of the (lower) level B wedges would have eliminated the dropped object risk.

What actions were taken? What lessons were learnt?

- ◆ Any change to a procedure should be subject to MoC;
- ◆ Procedures should be updated immediately and re-issued to include any changes;
- ◆ Any changes to procedures should be communicated to all personnel potentially affected by the change;
- ◆ All persons involved should take part in risk assessments/job safety analysis (JSA) in order to ensure all hazards are identified and eliminated/controlled.

Members may wish to refer to:

- ◆ [Near miss: dropped magnet during dry docking](#)
- ◆ [Guidelines for management of change \(IMCA SEL 001\)](#)
- ◆ IMCA DROPS videos:
 - [Technip DROPS \(IMCA SEL 039\)](#)
 - [Saipem DROPS - choice not chance \(IMCA HSSE 042\)](#)
 - [DROPS \(IMCA HSSE 043\)](#) [shared by Subsea 7]

3 Near Miss: Absence of Safety Pin in the Anchor Swivel-Shackle

What happened?

During planned modernization of the stern anchor it was discovered that the safety pin in the anchor's swivel shackle was absent.

Positive action— **Stop work authority** – was exercised by the vessel crew. There was a thorough visual inspection before work started, which allowed recognition that the anchoring equipment was in unsafe condition.

What were the causes?

There was no regular planned maintenance scheduled for this piece of equipment. The condition and availability of the anchor swivel safety pin was not the part of the planned maintenance program; thus, it had not been checked periodically.

What actions were taken? What lessons were learnt?

- ◆ A new safety pin was ordered and installed in the shackle within 12 hours;
- ◆ Conduct immediate additional full inspection and check condition of anchor swivel's shackle and availability of safety pin;
- ◆ Ensure that planned maintenance system (PMS) requires regular planned maintenance of anchoring equipment, including a check that the safety pin is in place and in good condition.

Members may wish to refer to:

- ◆ [Near miss: rigging recovered with missing nut from tri-plate shackle](#)
- ◆ [Near miss: missing nut and split pin on shackle](#)
- ◆ [Near miss: Shackle Configuration](#)
- ◆ [Dropped Object: Lay Tower Adjuster Leg Pin](#)



4 Fatal Fall from Height On-board *Seatruck Pace* in Liverpool in December 2018

What happened?

The UK Marine Accident Investigation Branch (MAIB) has published accident [Investigation Report 9/19](#) into a fatal fall from height. A crewman from the Cypriot registered ro-ro freight vessel *Seatruck Pace* died as a result of 4.5 metres fall through a vehicle ramp hatch.

The crewman was working alone and preparing to paint the leading edge of the open ramp hatch cover. For reasons that could not be determined, the crewman crossed a temporary safety barrier guarding the edge of the open hatch and walked along a narrow deck edge between the ship's side and the open hatch on which several trailer trestles were stowed. The crewman's fall was not witnessed but it is evident that he had fallen at or about the same time as one of the trestles. He was treated at the scene before being taken to hospital. He died three days later.



What went wrong?

- ◆ The crewman crossed a safety barrier protecting an open hatch;
- ◆ Risk seen as tolerable – the risk of falling was accepted, having probably taken similar risks in the past;
- ◆ Work practices indicated that adherence to the vessel's safety procedures was based on routine rather than of understanding and conviction.

What actions were taken?

The following actions were taken by the owners:

- ◆ Reminded Masters of the dangers of bypassing safety control measures and prompted them to review the safety of deck openings;
- ◆ Provided safety chains, fittings and warning signs for use on the temporary barriers rigged on the main vehicle decks of its ferries;
- ◆ Reviewed its risk assessment and permit to work (PTW) concerning working at height;
- ◆ Introduced a procedure for recording the use of safety harnesses;
- ◆ Committed to ensuring that all Masters and safety officers complete a Maritime and Coastguard Agency safety officers' training course;
- ◆ Completed a 'safety culture survey' among its senior management, and senior managers have attended the Health and Safety Executive's (HSE) '*Behaviour Change – Achieving Health & Safety Culture Excellence*';
- ◆ Engaged HSE consultants with the aim of forming a safety culture steering group and implementing the HSE's 'Safety Climate Tool'.

Members may wish to refer to:

- ◆ [Fatality: Fall From Height In Shipyard](#)

- ◆ [Fatality: Fall From Height](#)
- ◆ [Working at height](#) (short video)
- ◆ [Working at height](#) (longer video)

Members may wish to look at a number of other incidents where a causal factor was that risk was 'seen as tolerable': www.imca-int.com/alerts/search-safety-flash/?swpquery=tolerable.

5 BBC News: Worker Loses Hand After he was Injured with Faulty Hydraulic Cutting Gear

What happened?

A firefighter whose hand was amputated after he was injured by faulty cutting gear has received £1.5m in damages. He was working with hydraulic cutting equipment on a training exercise when his hand was pierced by a high-pressure jet of hydraulic fluid. See <https://www.bbc.co.uk/news/uk-scotland-48599963>.

It was only later that day he noticed his hand starting to swell and he began to feel a burning sensation. There was a small puncture wound through the side of his hand. He noted that one of his colleagues looked at the glove he had been wearing at the time and there was a hole straight through it.

He subsequently had 40 operations after the hydraulic fluid destroyed the tissue in his right hand, but after a four-year battle doctors were forced to amputate.

What went wrong?

The hose pipe connecting the hydraulic pump (which worked at up to 850 bar of pressure) to the cutting gear was riddled with tiny punctures which can appear over time after the hose has been dragged over broken glass or metal shards at the scene of an incident. One of these punctures caused a fine jet of hydraulic fluid to escape and pierce the leather safety gloves worn by the injured person.



This incident has been circulated as part of a safety flash as nearly all IMCA members use hydraulic equipment, and incidents of this sort have been seen amongst our members.

Members may wish to refer to:

- ◆ [Hand Injury: injection of hydraulic fluid](#) (2009)
 - *“This incident serves as a timely reminder to maintain vigilance and awareness of the very serious potential hazards and risks associated with working with pressurised hydraulic fluid.”*
- ◆ [Hydraulic Injection Injuries](#) (2014)
 - *“Someone died as a result of a hydraulic injection injury sustained whilst tensioning the track of a piling rig. A grease nipple became detached from the track mechanism permitting the release of grease under high pressure.”*
- ◆ [Stored Pressure Release – Hydraulic Oil](#) (2015)
 - *“There was an unexpected high pressure oil discharge causing injury to someone’s left hand.”*