

IMCA Safety Flash 17/19

July 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.

Dropped Objects

1 High Potential Near Miss – Storage Box Dropped from Forklift

What happened?

A storage box weighing approximately 770kg fell 4m from the forks of a forklift truck. The incident occurred when storage boxes containing items of equipment located on an intermediate floor at a supply base were being lifted from the level using a forklift truck. This near miss was categorised as a high potential event.



What went wrong?

Investigation has identified the storage box was not lifted correctly; it was not lifted from the captive pockets. If the captive pockets had been used, the bottom edge of the box should make contact with the fork itself, preventing tipping forward from the forks. The 'captive pockets' can be seen in the right-hand photograph below, and also in the extreme right of the photograph above (circled).



Showing incorrect box orientation with non-captive pockets presented.



Showing correct box orientation with captive pockets presented.

What were the causes?

Poor communication: the above was identified and followed on all the previous box retrievals. However, this was not communicated to new personnel joining the task which led to the (dropped) box being lifted from the non-captive pockets.

What are the lessons learnt?

- ◆ Review instructions on how items are identified, weighed, stored and handled;
- ◆ The lifting location of this box type should be clearly marked and visible from ground level.

Members may wish to refer to:

- ◆ [Dropped Pallet During Loading Of Stores](#)
- ◆ [Potential Dropped Object: Inbound Cargo](#) [relating to forklift pockets]

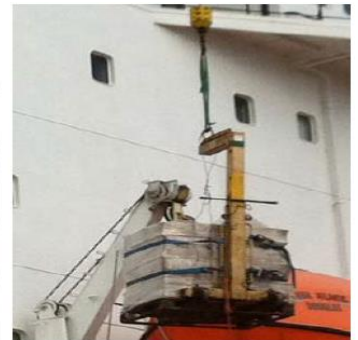
2 Dropped Load (Bottled Water) During Lifting Operations

What happened?

During a routine lifting operation, a pallet laden with about 1 tonne of bottled water, slid off the pallet lifting forks and fell around 8 metres to the quayside area below. The banksman had to run clear of the area to avoid being struck by falling items.



Falling pallet during lifting operations



Example of pallet loaded with water bottles and pallet lifter

How did it happen?

Inattention, complacency and failure to follow company lifting procedures with regards to lift team size.

What must you do in that situation?

- ◆ Follow company procedures and standards with regards to lifting operations;
- ◆ **STOP THE JOB** if worksite controls are not being followed or if work is not safe;
- ◆ Ensure sufficient barrier management is in place for lifting operations.

Members may wish to refer to

- ◆ [Dropped Load – Water](#)
- ◆ [Dropped Pallet During Loading Of Stores](#)
- ◆ [Dropped Object Near Miss: Lifting](#)

3 Near Miss: Dropped Magnet During Dry Docking Period

What happened?

There was a dropped object near miss incident involving a magnet which was used by subcontractors during hot work operations. The incident occurred during a dry docking. Part of the scope of work involved hot work, grinding and gouging, to be carried out from scaffolding put up against the ships funnel. As a dropped object prevention measure, the scaffolding had been partially enclosed on three sides, with the fourth side being against the funnel.



During an inspection of ongoing work, it was noted that sparks were escaping the fire protection and it was requested that the gap in the protection was closed. It was at this time, while the fire protection was being adjusted, that an object fell from the scaffold to the dock; a drop of 32m. The object was later identified as being a magnet which had been used to hold fire protection against the ships funnel. There was no damage and no injuries.

What went wrong? What were the causes?

- ◆ The worksite was directly above the dock and no barriers had been placed on the dock to prevent workers from gaining access to the area directly below the worksite;
- ◆ Sub-contractors were using magnets on site and at height without any secondary retention in place. This was not known to the vessel crew;
- ◆ The magnets in use had been engineered to allow fitting of eyelets for secondary retention, but the fitting of secondary retention eyelets had not been considered by the shipyard.



A magnet used to secure fire protection



The dropped magnet – note hole for retention eyelet



Similar magnet with secondary retention eyelet fitted

What lessons learned

- ◆ Our member noted that there was anecdotal evidence that magnets are routinely used in shipyards for securing against the ship superstructure. This should be taken into account on future worksites;
- ◆ Ensure that all equipment being used at height is identified and suitable dropped object prevention controls are in place.

Members may wish to refer to

- ◆ [Guidance on safety in shipyards](#) (IMCA M 221, IMCA HSSE 032)
- ◆ [Dropped Object Near-Miss – unsecured plastic box fell from load being lifted by mobile crane](#)

- ◆ [Unsecured object fell and injured crewman](#)
- ◆ Further safety incidents including the word 'retention'

4 High Potential Near Miss: Dropped Object During Piggyback Drilling Operations

What happened?

During piggyback drilling operations, a driller inadvertently operated the sample winch control lever instead of the power swivel fast rotation control lever as intended. Activating the sample winch caused a tool to rise from its storage position, resulting in it snagging on a safety hoop of the adjacent vertical fixed access ladder. The tool (weighing 11kg) separated from the wire and fell approximately 8m onto the drill floor below. There were no injuries and no equipment was damaged.



What were the causes?

- ◆ The operating driller moved the wrong lever unintentionally.

Investigation noted the following:

- ◆ The tool (an 'overshot') was connected to the sample winch wire via a weak link shear pin designed to separate at 450kg. The sample winch has a working load limit of 1.2 tonne;
- ◆ The experienced driller had not operated this particular type of drill rig control console for several years; however, he had received a short period of familiarisation training during the previous shift under the guidance of the back-deck supervisor;
- ◆ The control console ergonomics and inspection and maintenance requirements had not been properly considered:
 - the possibility of inadvertent operation of the wrong lever had not been identified when the piggyback drilling equipment was installed some months before the incident
 - there is no evidence that this had been taken into account (in 1995) when the piggyback drill was designed;
- ◆ There had been ineffective checking and assessment of the suitability or fitness for purpose of this equipment.

What actions were taken?

- ◆ Undertake a design review and complete a design risk assessment on all similar drilling rigs:
 - to include the operational and human interface with the drill rig and associated equipment
 - planned preventative maintenance check sheets should be updated to reflect the findings of this assessment;
- ◆ Control consoles should be clearly labelled to identify all controls and their function;
- ◆ Develop a thorough familiarisation assessment process for the operation of this kind of equipment.

Members may wish to refer to

- ◆ [High Potential Near Miss – Unsecured Sheave](#)
- ◆ [Explosion Of Hose-Ball Valve Assembly](#)

5 Quayside Dropped Object

What happened?

A metal plate weighing 5kg detached itself from a freight container and fell onto the quayside during vessel loading operations. The crew noticed that the bottom of the container had loose debris (rust) falling to the ground, and then a metal plate detached itself from the container. The metal plate was 5kg in weight and approximately 350mm x 300mm – a sizeable steel plate to fall from height. No persons were injured.



What were the causes? Why did it happen?

- ◆ The design of the forklift pockets in question are liable for the forks to catch, damaging them;
- ◆ The visual check of the underside of the container was not completed as part of the pre-delivery inspection;
- ◆ Current third-party inspections did not cover the underside of containers;
- ◆ It was established that the metal plates were only stitch welded, which has meant that over time, these welds will have degraded. For DNV certified containers, the plates must have full penetration seam welds.

What actions were taken?

- ◆ Inspect all existing forklift pockets. Those showing signs of damage or having stitch welds should be quarantined until rectified;
- ◆ The underside of containers should be inspected prior to dispatch. Regular inspection and maintenance programs should be implemented.

Members may wish to refer to:

- ◆ [Near Miss: Dropped Steel Plate](#)

6 Dropped Flexible Pipe Incident

What happened?

A member notes an incident during lifting operations, resulting in dropped flexible pipe.

A 6tonne riser test piece (RTP) was being lifted in preparation for load testing the system. The first end was lifted with winch wires attached to both ends. The crane and a 20tonne winch for the first end were connected to the riser via an end fitting pull head. The trailing 10tonne winch (2nd end) was attached using laced round slings. An earlier decision was made to remove the factory end cap and utilize laced round slings instead, but no management of change (MoC) was issued.

The test piece was lifted, and the operation was paused. The trailing winch operator perceived that there may have been insufficient wire on the winch drum to complete the transfer. The decision was made to reverse the lift. As the trailing winch was hauled in, the laced up round sling slipped free off the pipe and the test piece dropped

approximately 23m. A member of the crew had been working in the area where it landed only a few minutes previously.

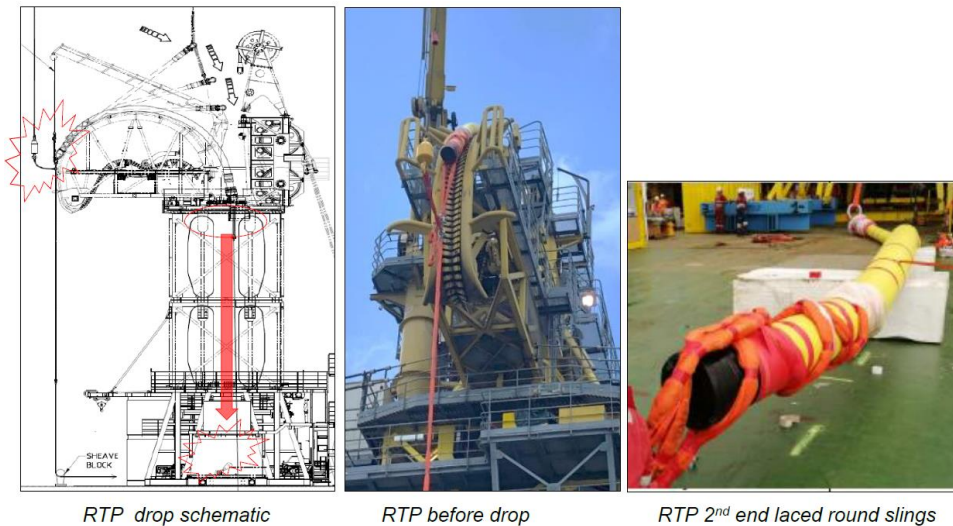
No persons were injured as a result of this incident; however, it did have the potential to result in a more serious outcome.

This incident emphasizes the importance of:

- ◆ Having clear, specific guidance for all operations;
- ◆ Ensuring that all equipment is checked and approved prior to conducting a task;
- ◆ Never underestimate the simplicity/routineness of the task.

Our member recommends a focus on:

- ◆ The importance of intervention – accept it, welcome it, expect it;
- ◆ Identifying, managing and communicating change using the MoC process;
- ◆ Complacency with routine tasks;
- ◆ Line of Fire hazards.



RTP drop schematic

RTP before drop

RTP 2nd end laced round slings

What were the causes?

- ◆ Lack of intervention at key stages;
- ◆ Incorrect application of laced round sling configuration;
- ◆ Insufficient emphasis on preparation; no load test on hold back rigging;
- ◆ The task was considered routine – a similar operation, although not the same, had been performed on a past project; there was no hazard identification (HAZID) performed on this procedure.

What actions were taken?

- ◆ Ensure that all 'non-standard or non-routine tasks' are risk assessed and HAZID carried out;
- ◆ Prepare clearly defined guidelines for laced round sling configurations and circulate consistently across fleet.

Members may wish to refer to

- ◆ [Dropped Pipe Incidents with potentially fatal consequences](#)