January 2016

# IMCA Safety Flash 02/16

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 webmaster@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.

In this Safety Flash, we begin with two fatal incidents which though not reported by IMCA members, involve activities which are conducted by all members. The third incident is a dropped object near miss; the fourth, an injury involving a watertight door that happened as a consequence of trying to rush and get things done faster.

### I Worker Killed When Struck by a Load on a Moving Crane

The UK Health & Safety Executive (HSE) has published the following information regarding an incident where a worker was killed when he was struck on the head by a load on a moving crane. The incident

occurred in a foundry when the worker was helping move a crucible from a re-melt furnace. The crucible had been lifted using an overhead crane and moved approximately 10m to where the worker loosened the bolts around the crucible. The crane operator waited for acknowledgment to proceed and lifted the load around 60cm higher before continuing movement. The crane operator saw the worker in the path of the load and shouted a warning while stopping the movement of the crane. The crane stopped but the load swung forward hitting the person on the right side of the head, causing fatal injuries.

The image to the right (UK HSE) shows a similar load.

An investigation revealed the following:

- The company had held no review of risk assessments and safe systems of work for a number of years;
- Crane operators had received no refresher training for years;
- Training for new employees was not adequate.

Further information can be found here.

Members may wish to review the following incident (search words: struck, crane):

♦ IMCA SF 19/14 – Incident 5 – Fatality: worker hit by ship crane during lifting operation.

### 2 Fatal Fall During Cargo Loading Operations

The UK HSE has published the following information regarding a fatal fall during cargo loading operations in dock. Third party contractor/agency employees were standing on top of a stack of pipes, engaged in loading 12m long steel pipes into the hold of the vessel. One of them fell from the exposed edge of the stack of pipes, landing on the steel deck of the hold 8m below. He later died in hospital as a result of his injuries.

Further information is available here.

Members may wish to review the following similar incident (search word: fall):

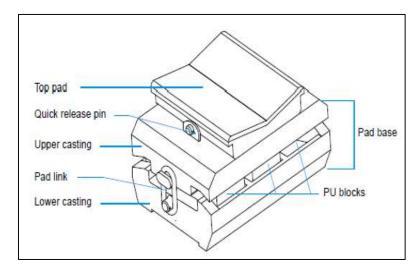
♦ IMCA SF 17/14 – Incident 1 – Lost Time Injury (LTI): fall overboard/fall from height.



## 3 High Potential Near Miss: Dropped Object

A member has reported a high potential near miss incident in which an object of 1.24 kg fell 36m. The incident occurred during removal of tensioner pad upper castings on a tiltable pipelay system. This equipment had two levels of tensioners called the upper and lower tensioners. Each level of the tensioner comprised a total of 384 pads, conducted on 4 rotating chains. The crew had been tasked with removing the upper tensioner pad upper castings, as these were required to be removed so that they could be sent away for machining. The task involved removing and refitting pads and casting to a total weight of approximately 27te. These were manually placed into the pad baskets suspended on the rear of the tensioner platform.

During the removal of a tensioner pad upper casting on track 4 of the upper tensioner section, one of the PU (polyurethane) blocks (there were three PU blocks per pad configuration) slipped out upon removal and fell between the track guide, falling approximately 36m to the deck below. No personnel were nearby at the time; the nearest person was 10-15m away. Had the PU block (which weighed 1.241kg and fell 36m) hit someone, the outcome had the potential to result in a fatality.



Tensioner pad diagram



In situ showing actual size

The approximate point of contact - where the PU block made contact with the deck

PU block final resting position on deck

Crew were working here at the time of the incident

Photograph of worksite

Our member noted the following:

- This was scheduled to be carried out by personnel from the supplier of the pipelay system, but owing to manpower issues, vessel personnel carried out the task;
- This was the first time that vessel personnel had carried out this task on the pipelay system. 80 of the 96 castings had been safely removed at the time of the incident;
- One shift carried out this task with the track 'paying out' so that there
  would always be a pad assembly underneath the work area (until the last
  casting has to be moved), significantly reducing the potential for a
  dropped object. This was not communicated to the other shift;
- The PU block landed on the deck outside of the safety barriers put in place for this task and finally came to rest approximately 7m away from where it first landed;
- This task was strenuous, ergonomically challenging and with manual handling problems that arose as the work progressed, resulting in several missed opportunities for an intervention to be made and failures to STOP THE JOB.

Our member made the following initial observations on the causes of the incident (subject to further investigation):

- There was no control of work no permit to work, no risk assessment;
- There was inadequate job planning and a lack of knowledge of the task;
- There was poor hazard awareness and poor risk perception of the task;
- There were inadequate communications between crew at shift handover;
- The design of the barrier handrail and the weight of the castings makes this task difficult for the workforce. A review has been conducted with the manufacturer of this equipment with regard to changing the layout of the barriers;
- Procedures for this task were still in draft;
- There was a failure to **STOP THE JOB**.

Dropped objects were the most common single subject of reported IMCA safety flash incidents during 2015. It would be beneficial for members to bring this topic once again to the attention of vessel crews, to drive home the lessons that are clearly not yet being learnt. Members are reminded of IMCA safety promotional material as follows:

- Pocket card IMCA SPC 12 Avoiding dropped objects;
- Poster IMCA SPP 04 Avoiding dropped objects.

Members may wish to refer to the following incidents (search word: pipelay):

♦ IMCA SF 06/15 – Objects dropped from pipelay tower.

### 4 Lost Time Injury (LTI): Finger Injury – Watertight Sliding Door

A member has reported an incident in which someone got his finger caught in a watertight sliding door, leading to a serious injury. Third party subcontractor personnel were on board a vessel to assist during a sea passage. When they joined the vessel, and before they started work, these personnel received a full vessel induction and safety familiarization, in line with company procedures.

In the early morning hours of the following day, one of the subcontractors was passing through the watertight sliding door in the tunnel space. While the door was still moving open (with about 5-6 cm left to its final open position) the individual attempted to pass through the door. During this process, he placed his left hand on the doorpost. As he was passing through the door, the little finger of his left hand got caught between the doorpost and the opening face when the door slid into its final position.



**BEFORE** Incident

The initial set up of temporary timber designed to prevent objects dropping. However once the upper casting is removed there is a gap sufficient for an object to fall in between the tracks



**AFTER Incident** 

Additional timber put in place to prevent further dropped objects Owing to the nature of the injury, the vessel had to be diverted to arrange for a medical evacuation. However, despite the best of medical efforts, the little finger of the injured person had to be amputated.

Our member's investigation revealed the following:

- Operating instructions and cautions were in place in the vicinity of the watertight door;
- Audio and visual alarms were in good working order;
- The injured person had been fully briefed beforehand with regard to the proper use of watertight sliding doors.

The immediate cause of the incident was that the injured person made an improper effort to save time – whilst passing the watertight sliding door, he supported himself by placing his left hand on the still moving sliding door, which then trapped his finger.

Our member notes:

- Whilst sliding watertight doors are equipment which is very familiar to all seafarers, the operation of watertight doors needs to be carried out with the utmost care and attention;
- Undue haste can lead to taking shortcuts which in turn can result in injuries. As can be seen in this incident, the consequences of incorrect conduct with watertight doors can be severe;
- Familiarization training received should be followed and put to good use;
- This incident was highlighted to vessel crew and subcontractors, to reiterate for all who need to use the watertight doors, that they are fully familiar with their operation.





Position of the hand with little finger in the pinch area.

Watertight sliding door in the fully "open" position (red arrow indicating the pinch area.)

Members may wish to refer to the following incidents (search words: *door*):

IMCA SF 01/01 – Incident 3 – Fatal accident involving a horizontal water-tight sliding door.