

IMCA Safety Flash 04/13

February 2013

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

I Near Miss: Dropped Handrail/Gate near Moonpool

A member has reported an incident in which a handrail gate was dislodged from its retaining points and fell 4.5m to the deck. The incident occurred after crew members moved a lifting mandrel to secure it against a mezzanine deck. The lifting mandrel started swinging fore and aft, and a crew member went to the forward winch and attempted to draw on the lifting mandrel tension wire and secure it. During this tensioning of the wire, the mandrel/wire rose under the lower bar of the mezzanine deck centre handrail gate, dislodging it from its retaining points. The handrail gate, which weighed 8kg and was 100cm across, fell 4.5m to the deck, landed and bounced once. There were no injuries, but it was calculated that such an object falling from that height might have caused a fatality had it hit someone. Hence the event was categorised as a high potential near miss.

The company's investigation revealed the following:

- ◆ The immediate cause of the incident was that the lifting mandrel/wire had caught on the lower bar of the mezzanine deck centre handrail gate, as a result of someone winding in on the constant tension winch attached to the lifting mandrel without appropriate directions from the lift supervisor;
- ◆ An All Stop was not called when it was realised that the lifting mandrel was swinging forward to aft;
- ◆ There was inadequate communication between the crew man and the lift supervisor regarding his intended actions to secure the lifting mandrel. There were actions which were undirected and unexpected by the lift supervisor;
- ◆ While securing the lifting mandrel, the crewman was unable to fully see the lifting mandrel from his location while operating the winch.

The underlying causes associated with the incident were:

- ◆ **Inadequate supervision:** The crewman was so focused on recognising that the lifting mandrel should be moved, to stop it swinging, that he acted immediately to correct this problem, losing sight of the overall picture. He failed to instigate standard controls specifically using the All Stop process to communicate his concerns with his team, highlight the hazards/risks and re-assess the situation as per the toolbox and All Stop process, and to ensure sufficient direction was given by the lift supervisor (and agreed lift team) in moving the lifting mandrel safely, and not blindly;
- ◆ **Inadequate communication:** The intention of the crew member to wind in the winch attached to the lifting mandrel was not properly communicated to the team. The lift supervisor did not see this happening;
- ◆ **Inadequate design:** The design of the handrail gate and its method of retention were such that there was no mode for secondary retention, which would (had the gate become dislodged) have prevented it from falling. The potential for the handrail gate to be a dropped object hazard was not identified and/or controls put in place, i.e. secondary retention or different design of the handrail gate, when this section was made and/or modified to allow for access during derrick activities. Thus the handrail gate design allowed for it to lift up and off, without any means of preventing it from dropping to the deck below.

The following corrective and preventative actions were taken:

- ◆ A thorough DROPS survey of the area for loose items and potential dropped objects;
- ◆ A thorough check for any other potential wire rope/handrail clashes;
- ◆ Procedures altered to ensure checking for clashes of this sort takes place in future;
- ◆ Re-design of gate to ensure a more positive means of locking/securing.

The following lessons were drawn from the incident:

- ◆ Good verbal/visual communication should be maintained during lifting operations;
- ◆ A banksman should be used at all times during any 'blind lifts' to continually monitor the area for potential clashes, changes to the work area, security of the load, etc.;
- ◆ Personnel should remain focused on the task and potential consequences both prior to and during lifting operations, particularly during 'routine' lifts.

Members' attention is drawn to the following IMCA material which may be of assistance:

- ◆ [IMCA SEL 019](#) – Guidelines for lifting operations
- ◆ IMCA safety poster 04 – Avoiding dropped objects
- ◆ IMCA safety pocket card 05 – Lifting equipment
- ◆ IMCA safety pocket card 06 – Working at height
- ◆ IMCA safety pocket card 12 – Avoiding dropped objects

2 LTI: Fall from Height Leading to Multiple Fractures

A member has reported an incident in which a worker fell 16m and sustained multiple fractures. The incident occurred when the worker was part of a team dismantling a hanging scaffold on part of a topsides under construction in the yard. The sequence of work meant that scaffolders dismantling the structure ended up supported on the bottom of the droppers (scaffold tubes attached to deck structure to support hanging scaffold). The worker was climbing the dropper to tie off his safety harness to the deck structure when the dropper slipped through the couplers and fell 16m with him attached. He sustained multiple fractures and was taken to hospital.



Showing site of incident

Dropper was attached here, 16m above ground

Safety or check coupler

Support coupler



Showing details of scaffolding

With regard to scaffolding, the following points were made:

- ◆ The dropper support coupler is attached to a horizontal tube;
- ◆ A second coupler is attached above the support coupler to act as a safety or check coupler;
- ◆ The purpose of the safety coupler is to support the dropper should the support coupler become loose;
- ◆ In this incident both coupler connections on the dropper became loose allowing the dropper to slide through both couplers and fall.

An investigation revealed the following causal factors:

- ◆ Primary support and safety couplers became loose and failed to support the dropper and the injured person;
- ◆ Fall arrest lanyard was connected to the dropper as no consideration had been given to fall arrest being independently tied off from the scaffold, e.g. inertia reel attached to the deck structure;
- ◆ No checks were made of the tightness of safety critical couplers after deck stacking and subsequently over a prolonged period (12-14 weeks);
- ◆ Partially dismantled scaffold indicated lax control of earlier activities;
- ◆ Supervisory personnel in attendance did not correct unsafe working at height practices and require an independent tie off;
- ◆ The task was not planned or risk assessed adequately.

The following recommendations and corrective actions were made:

- ◆ When dismantling hanging scaffold always connect the fall arrest to a structure independent of the scaffold being dismantled;
- ◆ Where no independent structure is in reach of personal fall arrest lanyards, or a greater degree of movement is required, use an inertia reel;
- ◆ Always check tightness of dropper support and safety couplers:
 - after stacking or moving of decks and structures when scaffold is pre-installed
 - after any alterations are made
 - after high wind
 - after it has been erected more than 30 days
 - before dismantling of scaffold.

3 Near Miss: Scaffolding Collapse

The National Offshore Petroleum Safety and Environmental Management Authority of Australia (NOPSEMA) has published the following report regarding an incident in which a vertical scaffolding tube (a 'dropper') supporting a scaffolder began to slip under his weight. The scaffolder alerted other workers in the vicinity but they could not reach the connection in time to tighten the coupler. The tube continued to slip through the coupler until the scaffolder fell. Fortunately, the inertia reel harness he was wearing arrested his fall. The scaffolder managed to keep hold of the dropper so that it did not fall into the sea, and was suspended over water for approximately seven minutes.

The report can be downloaded from www.nopsema.gov.au/assets/publications/Safety-Alert-54-Scaffolding-Safety.pdf

4 Outbreak of Salmonella and Gastroenteritis on an Offshore Facility

The National Offshore Petroleum Safety and Environmental Management Authority of Australia (NOPSEMA) has published the following report regarding a recent outbreak of salmonella and gastroenteritis on an offshore facility which resulted in about 40 members of the workforce being directly affected and led to severe disruption of offshore operations. The strain of salmonella identified was reportedly linked to eggs. The use of raw eggs, which were incorrectly stored, is suspected to have been the cause of the food-borne illnesses.

The report can be downloaded from www.nopsema.gov.au/assets/alert/Safety-Alert-53-Food-Safety.pdf

5 Fatal Crush Injury during Vessel Hull Maintenance

The UK Marine Accident Investigation Branch (MAIB) has published the following report regarding an incident in which a crewman was fatally injured whilst repairing paintwork on the hull of a vessel. The crewman was crushed between the vessel's hull and the lifting frame of the vessel's fast rescue craft (FRC), which was positioned alongside the vessel's port quarter to repair a small area of damaged paintwork. The crewman suffered severe internal chest injuries and was evacuated ashore for medical treatment. He died soon after arriving at hospital.

The report can be downloaded from www.maib.gov.uk/cms_resources.cfm?file=/ERathina_Report.pdf