

IMCA Safety Flash 07/10

November 2010

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: Falling Object

A member has reported an incident in which a falling object hit and destroyed someone's hard hat. Two third-party ironworkers were setting the upper section of a structural steel tower. Having set the section in place one worker left the immediate structure area and boarded the aerial lift so that he could access the very upper structure of the tower section, in order to release the rigging from the mobile crane used to set the tower. The other worker (approximately 10 metres below) continued to tighten the bolts of the upper section to the already established lower section using an impact wrench.

As the worker was manoeuvring the basket of the aerial lift, and properly tied off, his safety lanyard got caught on his tools (attached to his tool belt) and flipped a sleeve bar sideways in its sheath causing the bar to flip out and fall. The bar fell and struck the hard hat of the worker piercing the hard hat. The hard hat fell off the worker and fell an additional distance to the ground below. There were no injuries.

At the time of the incident a ground person was assigned as a dedicated safety watch to make sure no one entered the work area as the two workers were positioning and attaching the tower section. Additionally, the area had been barricaded with a danger tape.



Figure 1 - hard hat destroyed by falling sleeve bar

The following corrective actions were suggested:

- ◆ Only tools essential to complete assigned tasks should be carried in tool belts;
- ◆ More appropriate tool belts and holders should be developed to prevent tools falling from height;
- ◆ Persons should not work directly below areas where work at height is being conducted;
- ◆ Emphasis to employees of the importance of full communications and heightened safety awareness when working in areas where overhead fall object hazards exist.

Members attention is drawn to IMCA safety promotional material on working at height and dropped objects. The cards and posters are available for download from <https://members.imca-int.com/documents/core/sel/safetypromo>.

- ◆ Pocket Safety Cards:
 - IMCA SPC06 on working at height
 - IMCA SPC12 on dropped objects.
- ◆ Safety Posters:
 - IMCA SPP 03 Working at height – safe use of ladders
 - IMCA SPP 04 Avoiding dropped objects.
- ◆ 'Working at height' DVD.

2 Crewman Fatally Injured During Mooring Operations

A member has reported an incident in which a crewman suffered fatal injuries after being hit by a snapping chain and mooring rope connection. The incident occurred during mooring operations whilst manoeuvring two vessels together.

At the project worksite, one vessel was being manoeuvred towards the appointed workplace using a mooring line and winch. Rigging was slackened by the winch on one vessel; then the angle between the two vessels increased, which caused an increase in tension. At that moment the chain snapped at the pad-eye connection on one vessel, and a deckhand was hit by the chain and mooring rope as it swung across the deck causing fatal injuries.

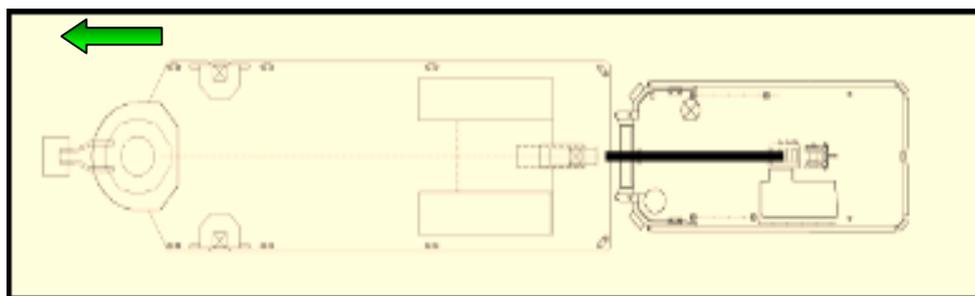


Figure 1 - vessels move towards appointed workplace

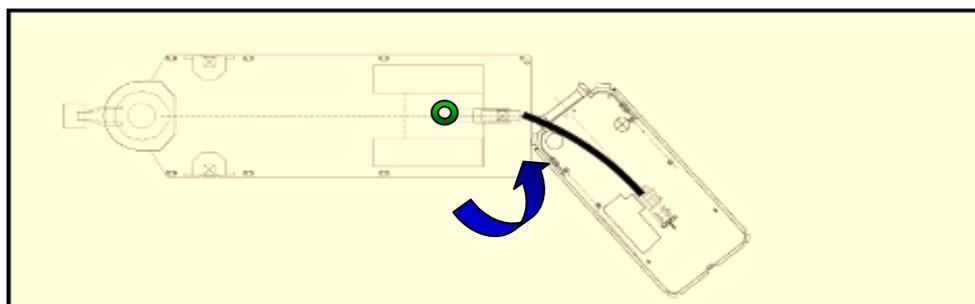


Figure 2 - Position of crewman in line of fire (green circle)

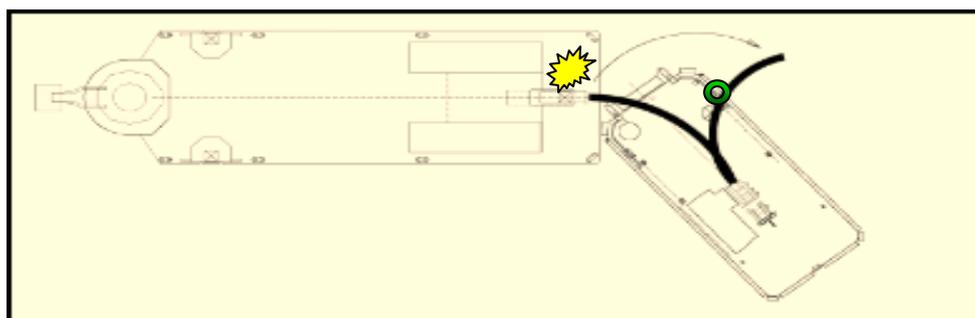


Figure 3 - Path of chain after failure under tension

Our member's investigation revealed the following:

- ◆ The deckhand moved into 'in the line of fire' in the path of the breaking chain;
- ◆ The breaking strain of the equipment used was underestimated in relation to the work being undertaken;
- ◆ Limited communication and poor sight lines between vessel masters, winch operator and deckhand were a factor.



Figure 4 - Snapped chain



Figure 5 - Mooring rope similar to that used in the operation

Our member made the following recommendations:

- ◆ Thorough revision of company procedures and risk assessments for this task, including types of connection, winches and towing equipment, and communications;
- ◆ Ensure all persons involved are involved in toolbox talks before this task;
- ◆ Check certification and fitness for use of all lifting and towing equipment (bollards, 'bridle' connection, wires, ropes);
- ◆ Establish clear communication (radio, signals and visibility) between the master of the towing/pushing vessel, the crane or winch operator and any personnel on deck.

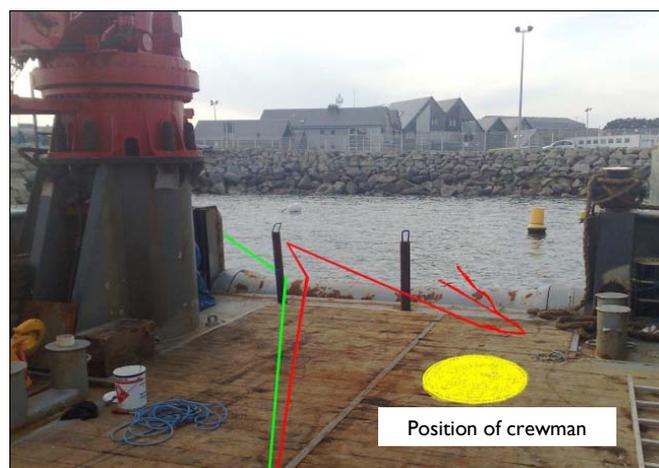


Figure 6 - Scene of incident (green line indicates towing line, red line indicates snapped towing line)

Perhaps the most important point highlighted by our member is that crew should take great care in their movements on deck in relation to possible danger from equipment failure, particularly with regard to ropes, towing and rigging equipment.

3 Precautions Against Jellyfish Sting During Diving Operations

A member has reported that there has recently been a significant increase in the number of jellyfish in areas where previously few jellyfish had been encountered. Apart from the obvious risk of stinging, there is evidence of further medical issues associated with diving in the vicinity of jellyfish. This has become an increased problem in summer months.

On contacting jellyfish, there is a tendency for particles of tentacles to become attached to the diver's suit. If these particles are not removed during the cleaning process, 'dust' remains on the surface of the suit during the drying process and can become airborne when returned to the diving chamber. Some divers may be allergic to this and suffer ill-effects.

When diving in an area suspected of being populated with jellyfish, members are encouraged to adopt a thorough cleaning routine and to take the following additional precautions:

- ◆ Risk of jellyfish sting should be included in the job safety analysis (JSA) and risk assessments for diving tasks;
- ◆ Umbilical recovery should always be carried out using gloves;
- ◆ After locking out, dive suits should be pressure washed with fresh water and thoroughly rinsed;
- ◆ Dive suits may then be dipped in the cleaning tank, and not prior to pressure wash, as this will result in contaminating the tank;
- ◆ Consideration should be given to the use of over-suits which should be removed prior to re-entering the bell;
- ◆ Divers' umbilicals should be visually inspected and scrubbed (as required) on entry to the bell;
- ◆ Ensure ship medic and diver medic technician (DMT) are made aware of jellyfish danger and understand first aid procedure;
- ◆ Prior to locking cleaned and dried suits into the system they should be checked for surface residue (normally in the form of a "white" flaky coating). If present it should be cleaned to remove the contaminant.

If these cleaning processes are not adhered to, the contamination on the suits can become 'atomised' during the blow-down (into saturation) process resulting in atmospheric dust. Through consultation with experts involved in the study of jellyfish, it has become recognised that dried jellyfish particulates can be an irritant specifically resulting in coughing while others in the fishing industry have recognised that dried nets can also result in skin rash during periods where high levels of jellyfish have been encountered.



Figure 1 - Jellyfish

4 Fatality – Fall from Height

A member has reported an incident in which a worker was killed, falling 19 meters from a column walkway. The person was a fitter putting in place a final piece of grating on an overhead walkway (see Figure 1 below). The worker was standing on a platform made from two planks. As the worker was moving the grating, one plank fell down causing the worker to swing, lose his balance and fall to his death.

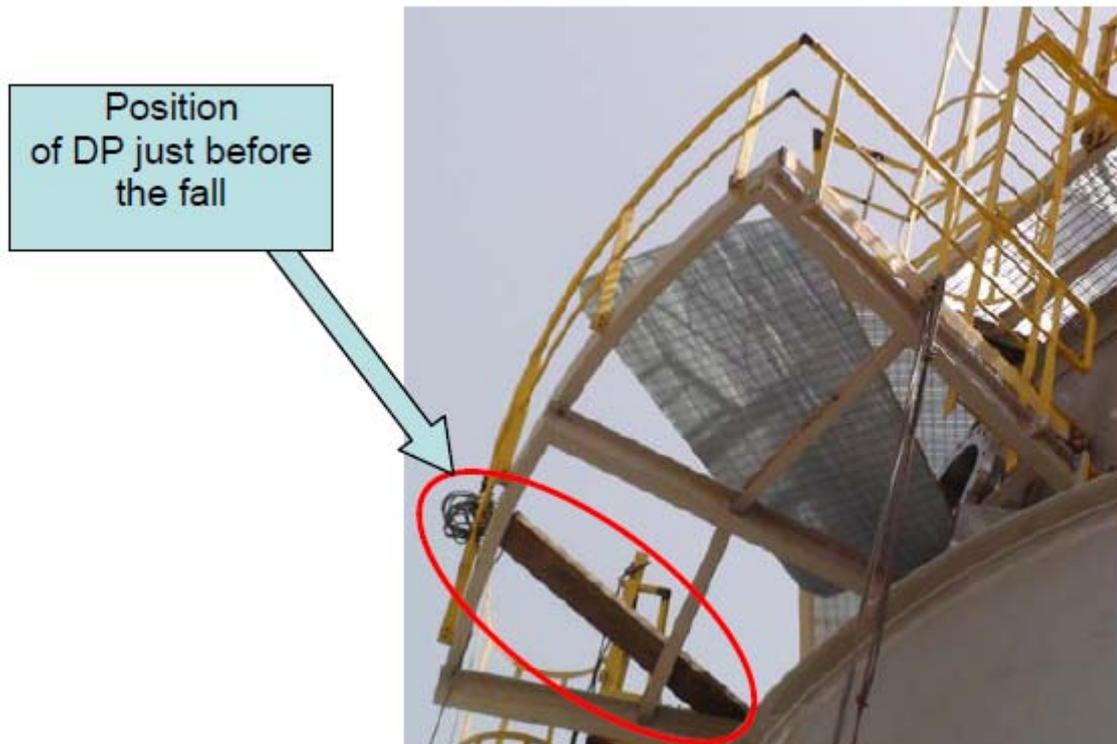


Figure 1 - Location from which worker fell

Members are encouraged to remind their personnel of the following basic safety principles when working at height:

- ◆ When working at height with fall exposure, 100% fall protection should be required;
- ◆ Personnel working at height should be properly trained to use fall protection devices;
- ◆ Personnel working at height should wear full body harnesses fitted with lanyards;
- ◆ Fall arrest equipment should be carefully inspected before and after each use;
- ◆ Temporary platforms should be properly secured;
- ◆ Platforms and walkways shall be kept free from obstacles such as materials, equipment, tools and rubbish, etc., which might fall or obstruct safe working activities.

Members are reminded of IMCA's safety promotional material on working at height, which includes safety pocket cards, posters and a DVD:

- ◆ Safety pocket card IMCA SPC 06 *Working at height*;
- ◆ Safety posters IMCA SPP 03 *Working at height: Safe use of ladders* and IMCA SPP 04 *Avoiding dropped objects*;
- ◆ *Working at height* DVD which promotes the need for safety awareness, discusses various hazards and provides real-life demonstrations of good practice. It is available in both PAL and NTSC formats and is subtitled in key languages for use with a variety of offshore workforces.