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# IMCA Safety Flash 02/06

These flashes summarise key safety matters and incidents, allowing wider dissemination of lessons learned 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 Falling Object – Failure of Lifting Appliance

An IMCA member has reported a lifting appliance failure that occurred in connection with the transport of oil barrels. Barrels filled with oil were being lifted by a vessel crane from the shore onto the vessel. During one of these lifts, one of the barrel clamps came loose from the barrel. The other barrel clamp also came loose, allowing the barrel to fall onto the deck of the vessel where it burst. There were no injuries.

Because of the oil spill on deck, the SOPEP team was mustered. The oil spill was contained, no oil entered the water, and the spill was cleaned up.

The company conducted an investigation into the accident, which concluded that the most likely cause was incorrect mounting of the barrel clamps in the past leading to deformation of the clamps, which led to the load being dropped.

The company took the following actions:

- other vessels have been alerted to the incident, via distribution of an internal safety flash;
- toolbox meetings have been held onboard the company's other vessels to demonstrate the correct use of barrel clamps.

#### 2 Fatal Fall in Shipyard

IMCA has received a report on a fatal accident in a shipyard, in which one worker was killed and another was saved by his safety harness. The two workers were constructing cable hangers using steel pipes onboard a ship in the yard. The cable hangers were intended for the laying of service lines, such as electrical cables and compressed air hoses. The two workers were standing on the ship's railings and constructing a cable hanger when the cable hanger tilted. They lost their balance and fell off the ship. One worker's life was saved by his safety harness which was secured. The other worker fell some 27 metres to his death at the bottom of the dry dock. He was wearing his safety harness but had not secured it.

This is a fundamental lesson in the proper use of personal protective equipment (PPE) which has tragically cost someone his life. It is not enough merely to wear PPE – you must actively use it and make it work for you to make your job safer.

Everyone needs to be vigilant by looking out for unsafe work practices and ensuring that all safety rules and regulations are strictly adhered to – rules are there for a purpose. Extra care should be taken to ensure that proper risk management is in place and that safe work procedures to prevent accidents are developed, implemented and complied with.

#### **3** Worker Sustained Severe Facial Injuries During Vessel Maintenance

IMCA has received a report on an accident wherein a worker on a pipelay vessel sustained serious injuries to his face. Whilst the vessel was alongside, routine inspection and maintenance work was being carried out on sheaves, bearings and clamps on a J-lay tower. The main pin and sheaves had been dismantled successfully. Later, during re-installation, the main pin was inserted by hand, halfway inside its path, in order to facilitate its final positioning. It was decided to use a hydraulic jack to push the pin in further. To this end, an additional pipe was introduced to the job. This pipe was held by hand and the hydraulic jack positioned at the other end of it. The jack was then put under pressure to start pushing the pin into its final position. Whilst under pressure, the pipe slipped out from under the jack and hit a worker in the face.



Appropriate first aid was applied. The casualty was then transferred to hospital where severe facial injuries were diagnosed.

The company's investigation of the accident revealed the following:

- A job safety analysis (JSA) was used that had been developed for a similar operation carried out for work on another piece of equipment. However, the additional tools and equipment being used were not mentioned on this JSA;
- This work had not been documented at a safety briefing held earlier that day;
- The 'tool used for the job', i.e. the pipe, was not of a manufactured design and hence was not fit for purpose;
- the supervisor/workgroup leader was unable to offer continual support/supervision due to heavy work load and could only visit the work site periodically.

The company has made a number of modifications to its safety management system to prevent recurrence of this kind of accident, and observed the following lessons learnt:

- Existing and/or generic job safety analyses should be rigorously examined when being reviewed in order to take specific work environment conditions into account;
- Permit to work requirements need to be applied at all times;
- Pre-job safety briefings are essential and should cover all planned and possible or likely work;
- Personnel need to be clear that in case of doubt, they should avoid shortcuts and ask their supervisor.

## 4 Hand Injury Sustained by Diver

One of our members reports an accident wherein a diver sustained severe crush injuries to the fingers of his right hand. The diver was working in saturation at a depth of around 70 metres. The injury occurred whilst he was disconnecting a chain shackle (connected to a crane on a surface vessel) from a pipeline end manifold (PLEM) pile.

Whilst removing the shackle pin from one side of the PLEM pile with his hand was on the pad eye on the other side of the pile, there was an upward heave of the vessel. The chain connected to the vessel crane therefore tightened and the diver's hand was trapped between the shackle and pad-eye, causing crush injuries on his fore, middle and ring fingers of his right hand.

On the advice of the diver medic, the diver's wound was treated during decompression, which took four days. The wound was dressed at regular intervals and successfully kept uninfected until the diver could be hospitalised. In subsequent surgery, two injured fingers were saved, but part of the diver's middle finger had to be amputated. The diver would be able to carry out normal diving activities in future and pursue a career in diving.



Similar PLEM pile



Post surgery and top phalange amputation

### Diver's hand after injury

The company's investigation report noted that:

- there had been proper co-ordination between the diver, diving supervisor, field engineer and crane operator;
- the accident could have been averted had the diver better placed his hand to avoid the possibility of it being caught between the shackle and the pad-eye.

The company sent a safety alert to all its offshore sites highlighting the incident. Awareness of the potential for hand injuries was emphasised through toolbox meetings, presentations and discussion of the incident during safety inductions.