

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

1 Use of Rags – Potential Puncture Wound

Keywords: Near miss

We have received the following report of a near-miss on board a rig, which provides a reminder of the need for constant safety awareness offshore.

A coil tubing supervisor was involved in the process of rigging up equipment on the rig floor. As he was sweating, he went to a rag box and selected an unused rag to wipe his forehead with. After wiping the sweat from his forehead, he noticed a 1” sewing pin that had been left in the rag.

No injury occurred. However, there was considerable potential for a puncture wound to his hands or face.

The rags came from a chain of suppliers and the rag source was variable.

The company involved has noted that boxes of rags are a widely-used commodity within the industry and that they may not be free from contamination or sharp objects. It is possible that rags may be used to soak up contaminant and then returned to the box.

While there are certain checks within the rag supply process, it is also important that a user checks the rag before use. Everyone should be alert to the possibility of contaminants or sharp objects within rag boxes. As a precaution, the company has stated that rags should not be used to wipe faces.

2 Working with Hoses and Pressure

Keyword: Pressure

Working with pressure and hoses carries several risks that can lead to severe injury. The identification of the risks involved with pressure and hoses can often be missed. Lately in the oil industry there have been several such incidents, including two noted below:

2.1 Leaking Seal on Hydraulic System causes Oil Spray

One member has reported an incident which occurred recently, whereby a person got sprayed with hydraulic oil due to a leaking seal in the hydraulic system.

The oil got into his eyes, but he did not take enough time to remove all the oil from his eyes, resulting in a visit to the hospital for check-up on shore.

The lessons learnt were:

- ◆ that during pressuring or re-pressuring any system, personnel should stay at a safe distance at all times, particularly at sensitive connections (flanges, valves, repaired areas etc.);
- ◆ the need for personnel to check the relevant data sheet, which should be readily available, for correct action for the oil/chemical;
- ◆ the need to wash eyes or any other body parts extensively if exposed to oils or chemicals;

- ◆ that the effects of oils/chemicals may not appear immediately, but may occur much later, so it is prudent to take immediate defensive action.

2.2 Fatality While Inflating Truck Tyre

A heavy-duty truck driver/operator was fatally injured while inflating the truck's right front tyre. During inflation, the wheel lock ring flew off, hitting the operator in the face. The company involved has noted the need to maintain a safe position while carrying out such work, as illustrated in the diagrams below:



One member has passed IMCA its notes to employees on the subject of working with hoses and pressure as follows:

Take a moment to review the following points to help prevent any further hose related incidents.

Risks when working with or around hoses and pressure:

- ◆ Whip from hose resulting from
 - A sudden release due to connection failure
 - Disconnecting a pressurised hose
 - Failure to use proper hose safety locks and restraints
 - Sudden release due to improper fastening of connection
 - Failure as a result of exceeding pressure capacity of hose
- ◆ Hose fatigue and exposure to hazardous environment
- ◆ Hose/connection manufacturing defect
- ◆ Pressure injection injuries

To prevent accidents and damage to hoses:

- ◆ Wear appropriate PPE including, hardhat, safety glasses, gloves while working with hoses.
- ◆ Use hose safety devices including pins.
- ◆ Use the corrective length and diameter of hose.
- ◆ Run the hose as specified by the manufacturer, ensuring proper support and restraint brackets.
- ◆ Replace any chafing guards that are damaged or missing.
- ◆ Do not ignore outer jacket damage. Replace hose as necessary.
- ◆ Check fittings ensuring they are in good working condition.
- ◆ Keep all air and high-pressure hoses properly coiled when not in use.
- ◆ See that couplings and valves are in good repair. Make sure ends cannot be pulled loose allowing the lines to whip around dangerously.

- ◆ High-pressure wash guns without trigger shut-off valves should not be used. Never point any high-pressure spray wand at another person.
- ◆ Compressed air blow-off guns can be dangerous. Keep gun directed away from face and use goggles to protect your eyes from flying dust particles.
- ◆ When working around steam cleaning operations always wear boots, heavy gloves and face protection to protect from burns. A shot of steam inside a pair of shoes can raise blisters. Hands that touch a hot coupling can result in painful burns.

Pressurised equipment is a potential hazard to be approached with care

3 Slips, Trips and Falls resulting from Loose Cables and Hoses on Walkways

Keyword: Fall

A member has recently issued advice to its employees concerning slips, trips and falls. It notes that international review of incidents reveals that a substantial percentage of incidents are caused by slips (wet surfaces etc), trips (tripping over objects) and falls (from heights or otherwise).

One of the main obstacles on board vessels (also at shipyards and shore bases) is loose cables or hoses, etc., lying on deck or other areas.

There was a recent near-miss where a set of gas hoses together with welding cables were cut/damaged, causing a small fire.

The company has noted the following lessons learned:

- ◆ Gas and oxygen hoses and electric cables should be kept apart;
- ◆ Cable and hose 'housekeeping' should be maintained at all times, with proper maintenance to be carried out on all hoses and cables;
- ◆ Hoses and cables should be kept off of the deck/floor through the use of hooks or other means where possible (if this impossible, proper protection, such as thresholds, etc., should be used);
- ◆ Tools made available to keep cables and hoses free from the deck/floor should be used and supervisors should check this regularly;

4 Respiratory Equipment

Keyword: Mask

A member has recently issued advice to its employees concerning respiratory equipment as follows.

On board there are several kinds of equipment for protection from possible polluted air. To be effective, it is necessary to assess which kind of mask is appropriate and whether the mask fits correctly, Maintenance of the mask is important.

Masks are available in several different forms but the common ones are:

Disposable Masks

This filtering mask covers the mouth and nose and removes respirable dust. They offer protection against some vapours and gases. One type, the 3M8210 gives protection against respirable dust so can be used during grinding, cleaning, jobs. For arc welding/gouging the 3M9925 type also gives protection against the harmful welding fumes.

Half Masks

Are made of plastic/rubber and are fitted with filter cartridges which can be changed out. These can be used for vapours, gases and dust, but it is very important that the correct filter is used (a dust filter will not filter vapours).

Do a fit test of the mask before you start working. A simple test to see whether the fit is tight or not is to close off the air supply (filter cartridge holes), breath in and hold your breath. The respirator should collapse on the face. It should then be possible to check to see if there is a leak.

Full Face Mask

Similar to the half mask but also covers the eyes by means of a visor.

Powered Respirator

A battery operated fan delivers air through a filter to the face mask, helmet or visor.

For all masks, the following applies – when it is getting hard to breathe, when taste or smell is detected, get out of the area where you are working and change the mask or replace the cartridge.

5 Machine Guarding

Keyword: Machinery

Employee exposure to unguarded or inadequately guarded machines is prevalent in many workplaces. Amputations are one of the most severe and crippling types of injuries in the occupational workplace.

All personnel have to be focused on recognising and controlling common amputation hazards associated with the operation and use of certain types of machines.

A member has recently issued advice to its employees as follows:

All machines consist of three fundamental areas:

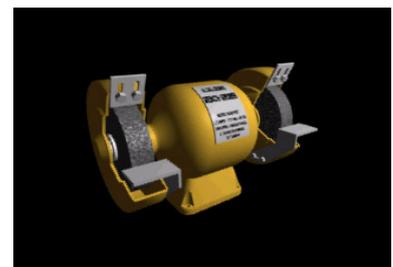
- ◆ The point of operation
- ◆ The power transmission device
- ◆ The operating controls

Despite all machines having the same basic components, their safeguarding needs differ widely due to varying physical characteristics and operator involvement.

- ◆ Safeguards are essential for protecting workers from these needless and preventable injuries
- ◆ Any machine part, function, or process which may cause injury must be safeguarded
- ◆ When the operation of a machine or accidental contact with it can injure the operator or others in the vicinity, the hazards must be either eliminated or controlled.

In-running nip points

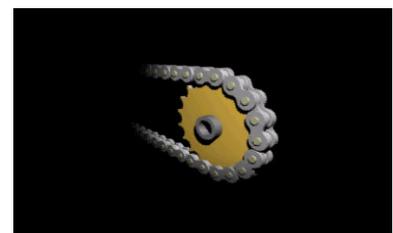
Nip points can occur between rotating and fixed parts which create a shearing, crushing, or abrading action.



Hazards are caused by the rotating parts on machinery. Parts can rotate in opposite directions while their axes are parallel to each other.

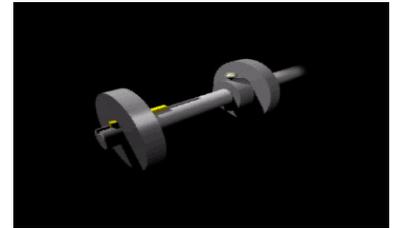


Are also created between rotating and tangentially moving parts.



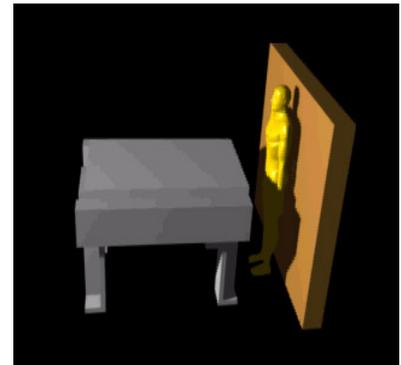
Rotating Motion

Can be dangerous; even smooth slowly rotating shafts can grip hair and clothing, and through minor contact force the hand and arm into a dangerous position.



Reciprocating Motions

May be hazardous because, during the back and forth or up-and-down motion, a worker may be struck by or caught between a moving and a stationary part.



Transverse Motion

By movement in straight, continuous line, creates a hazard because a worker may be struck or caught in a pinch or shear point by the moving part.



Cutting Action

The danger of cutting action exists at the point of operation where finger, arm and body injuries can occur and where flying chips or scrap material can strike the head, particularly the eyes or face.



6 Dangers when Mooring and Unmooring

Keyword: Mooring

A recent near-miss was reported on a member's vessel, whereby a rigger was nearly hit by a mooring line during a mooring operation. The rigger was operating the capstan when it happened. In the past, a number of near misses have occurred and unfortunately also a number of very serious accidents whereby people sustained extensive injuries.

Mooring and unmooring of barges and ships has always been a hazardous operation. Clearly, not all parts of a mooring operation can be planned without good co-operation and communication with the crew of the facility or other vessel.

To enhance such co-operation and communication, with the aim of eliminating such incidents, the member has noted the following points in its procedures:

- ◆ Always have a 'toolbox talk' prior to any mooring/unmooring operation and keep to the agreements made;

- ◆ Follow the correct (agreed) sequence;
- ◆ Always stand clear of areas where you can be hit by a breaking line or a jumping line;
- ◆ Check the condition of the mooring lines before use –if their condition is unacceptable, scrap them;
- ◆ If you end up in a situation where the situation is hazardous, stand back and/or stop the operation and make sure it is safe before proceeding;
- ◆ Communication between deck and foreman on barge needs to be operating properly in case of sequence changes or otherwise.

7 Electrical Safety

Keyword: Power

It has been reported to IMCA that there have been several incidents lately relating to electrical safety.

Essentially:

- ◆ Working on electrical equipment can be a highly hazardous job
- ◆ The identification of the risks involved can be hidden and taken for granted.

Risks associated with working on energised equipment include:

- ◆ Electrical shock/electrocution to personnel
- ◆ Electrical arcing or flash burns
- ◆ Electrical fires

To prevent electrical injuries while working with electrical equipment, ensuring the following safety work practices are followed:

- ◆ Ensure all applicable 'permits to work' and stored energy lock-out/tag-out steps are taken;
- ◆ Prior to performing any work a job safety assessment/toolbox talk must be performed to determine the appropriate safeguards and personal protective equipment.

8 Care Using Hand Tools

Keyword: Hand Tools

A recent incident has been reported to IMCA. Whilst we do not have details of injuries or damage, it involved a fairly standard operation in the engine room. An engineer was busy drilling holes in a pumping casing, using a high-powered drill machine, which he was using a rope to suspend and then holding by himself.



Causes given in the incident report were:

- ◆ A drill too powerful to be operated by a single person
- ◆ Limited space to operate
- ◆ Poor communication between engineer and his helper

Corrective action prescribed by the company to all of its vessels is:

- ◆ Heavy hand tools to be operated by at least two operators or other measures to be taken to make their use safer
- ◆ Choose the type of tool to match the job that needs to be done
- ◆ If necessary carry out a job safety analysis and do a toolbox talk before starting a job.