

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](mailto: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](http://www.imca-int.com/links). Additional links should be submitted to [webmaster@imca-int.com](mailto:webmaster@imca-int.com)

## 1 Engine Room Fires – Appropriate Use of Insulating Material on Hot Surfaces – Feedback following IMCA Safety Flash 10/05 item 2

Safety flash 10/05 reported on a recent engine room fire. It was noted in that safety flash that the probable cause of the fire was spraying of leaking hydraulic oil onto an improperly insulated exhaust flange. (NB SOLAS regulations require proper insulation of all surfaces with temperatures above 220°C.)

A member has provided some useful feedback on the incident report, set out below for further information:

- ◆ Covering every hot surface with lagging could increase the risk of fire if done so without using suitable insulation material;
- ◆ The use of soft or absorbent lagging can create further potential risk, since oil sprayed onto absorbent or soft lagging on a hot exhaust can eventually ignite;
- ◆ A small leak might dribble unnoticed onto soft or absorbent lagging until there is enough oil in close proximity to the hot exhaust to cause a fire. This can be an issue with certain widely used makes of engine;
- ◆ Oil resistant laggings are commercially available. Whilst these are not perfect, they do afford some protection from oil spray or leaks. These oil-resistant lagging types have a silver facing to protect against flammable liquids.

## 2 Near-Miss During Diving Operations

IMCA has been advised of a near-miss during diving operations involving the cam lock on a KMB17 divers helmet. The diver entered the water and stopped at a depth of 3 metres to begin safety system checks, after which he continued his descent. At 8m, the diving superintendent heard a water gurgling sound from the diver and asked him if he was experiencing any problems. The diver reported that his cam lock had come undone. The diver turned on his free flow, evacuated the helmet and attempted to relatch the neck dam. Realising that something had become stuck in the cam, the diver reopened, cleared and relatched the cam lock.

Having confirmed that the safety system was secure, the diver was ready to continue to the bottom. However, the diving superintendent thought it best to abort the dive to check the cam lock and ensure there was no damage. The dive was aborted and the diver returned to the surface safely.

During debriefing, the diver stated that he had one hand on the down-line and the other held a cloth measuring tape. The diver was proceeding down the down-line head first and the cam lock apparently made incidental contact with the down-line, causing the cam lock to dislodge.

Investigation noted the following positive points:

- ◆ the diver was able to relatch the cam lock whilst in the water;
- ◆ the dive was promptly aborted in an effort to better understand the matter;
- ◆ the site leader gave immediate attention to the situation and contacted all appropriate supervisors;
- ◆ the contractor and client were in agreement and supportive of the entire investigative process.

The following points were noted:

- ◆ the manufacturer manual includes the notice reproduced as figure 1;
- ◆ the diver had been carrying something whilst descending;

- ◆ there was a lack of appropriate safety pins for cam locks.

The following lessons and corrective action were suggested:

- ◆ the use of a safety pin or other secondary safety device on Kirby 17A/B helmets (see figures 2 and 3);
- ◆ the importance of remaining up-to-date on safety alerts from manufacturers of dive equipment;
- ◆ divers should not descend to the work site carrying tools or equipment.



Figure 1



Figure 2



If used, the yoke strap (168) is now placed over the top of the helmet (but under the handle) and secured in place. The yoke strap is standard on all 17 A/B helmets shipping after January 2004. It's use is strongly recommended.

Figure 3

*Images used with permission. Copyright Kirby Morgan Dive Systems*

### 3 Engine Room Flooding

An incident has been brought to our attention wherein flooding started in the engine room of a ship. This occurred during preparation for cleaning of a sea water inlet filter. Cleats on the filter were released and immediately seawater flooded through the filter. Forty minutes after the filter was opened, the engine room, steering-gear compartment and accommodation had become flooded, resulting in a significant list to port and extensive equipment damage.

Testing proved the correct functioning of the valves on both sides of the sea water inlet filter. Correct valve position markings were visible and correct. Nonetheless, the flooding seemed to be a result of insufficiently closed valves prior to opening of the filter. The underlying causes of the incident were improper planning, inadequate procedures and/or lack of adherence to procedures.

The following lessons learned should be noted:

- ◆ The position of the valves on each side of the sea water inlet filter is crucial. Always ensure valves are closed prior to opening of the filter. If an interruption has occurred, re-check the position of the valves prior to recommencing the work;
- ◆ Remotely operated valves must be secured against unintentional operation, before commencing removal of the filter cover;
- ◆ The procedure for removing or re-tightening the filter cover is important. If cleats are removed from cover hinges in an unplanned sequence, the operator may lose the possibility of re-tightening the cover. Cleats should remain in position until it is safe to remove the cover. Cross-loosen cleats while they rest in hinges. When tightening cleats, follow the same procedure in order to avoid the cover being tightened incorrectly;
- ◆ When cleaning of the filter is completed and cleats are tightened, carefully open valves on each side and check normal operation;
- ◆ The risk of misunderstanding or error can be significantly reduced if filter cleaning is completed by the same person and preferably without any interruptions during work.

### 4 Object Falling from Height

IMCA has received a report of an incident wherein a 'banana sheave' roller weighing 4.5kg came loose during operations. It fell some 24 metres from the derrick and hit the drill floor. Nobody was injured.

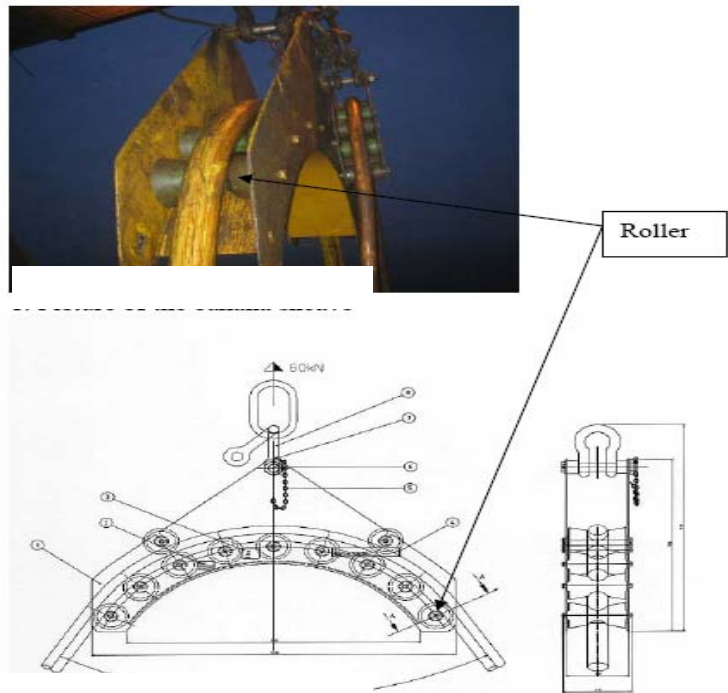
The immediate cause of the accident was identified as being that the bolts which attached the rollers to the sheave had loosened.

The underlying causes were noted as:

- ◆ insufficient design;
- ◆ insufficient maintenance;
- ◆ lack of documentation and drawings describing that the sheaves should be function tested;
- ◆ insufficient description of responsibility for involved personnel;
- ◆ insufficient maintenance management and follow-up relating to lifting equipment.

The following points were noted:

- ◆ Lifting equipment should be examined and valid certificates for equipment in use should be presented;
- ◆ Inspection and maintenance should be performed on all sheaves that are in operation, with nuts and bolts inspected;
- ◆ All bolts on rollers should be fitted with protective pins to stop the bolt from loosening;



2. Drawing of the banana sheave

The contractor's planned maintenance management system in place is to be reviewed accordingly.

## 5 Near-Miss During Lifting Operations

We have received reports of a near-miss wherein a worker was nearly caught between a load and a fixed structure.

The immediate cause of the near-miss was crane creep, which was compensated for automatically with an upward movement of the load, almost trapping the worker on the deck.

Underlying causes noted were:

- ◆ insufficient management engagement;
- ◆ responsibility for operation and maintenance of crane not being properly understood;
- ◆ inadequate knowledge of crane operational routines and condition;
- ◆ maintenance routines not being specific enough.



The recommended actions included:

- ◆ ensuring that responsibility and reporting routines in connection with crane operation and maintenance are clearly understood by all involved;
- ◆ ensuring appropriate competence and training for all personnel with crane functions;
- ◆ checking and updating of maintenance routines, with daily follow-up for all cranes;
- ◆ replacement of the existing 'creep compensator'
- ◆ review of the company's crane manuals and training material to ensure that they are appropriate and up-to-date.

## 6 Near-Miss - Dropped Object Narrowly Misses Worker

During some pipe work on the deckhead of a production platform, a spanner weighing 1.4kg was dropped from the work place and fell 6 metres, landing only one metre from another worker.

The immediate causes of this near-miss were that:

- ◆ the workplace was not adequately secured against the risk of dropped objects;
- ◆ there was an opening in the grating allowing the object to fall.

Underlying causes noted were that:

- ◆ the work had been improperly managed and organised;
- ◆ there had been no procedures in place for this type of work.

The resulting investigation made the following recommendations:

- ◆ use should be made of checklists for safe work at heights;
- ◆ checks should be made and, where necessary, deficient floor grating should be repaired;
- ◆ clear marking out of barriers in areas below working areas should be ensured;
- ◆ permit to work systems should be correctly adhered to.