IMCA Safety Flash 05/12

June 2012

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

1 Uncontrolled Ascent of Lift Bag

A member has reported an incident in which an inflated underwater lift bag was let go, causing it to rise to the surface in an uncontrolled way. The incident occurred when a diver was working on the seabed and engaged in rigging a 100kg lift bag, which was to be used to assist in handling and positioning a load. The lift bag was rigged with a small shackle through its strops. The load was rigged with a large shackle attached to the lift strops and a holdback.

When connecting the two however the diver, instead of joining the two shackles together, simply passed the lift bag strops through the larger shackle (see illustration below). When the rigging was complete, the diver untied the inverter line and asked the dive supervisor for pneumo gas to be supplied, so he could put a small amount of gas into the lift bag, to cause it to stand up, and check the overall arrangement.

Showing arrangement of shackles that allowed lift bag to come free and ascend to surface

As the diver proceeded to tie the inverter line to a standoff, the gas in the lift bag caused it to ascend with just enough buoyancy to lift the lift bag rigging and small shackle through the larger shackle. Although by no means fully inflated the lift bag then ascended to surface.

There were no injuries or damage to equipment. The location of the lift bag, strops, associated rigging, and positioning of the divers did not pose a risk to either from snagging of umbilicals or hands being trapped or entangled around any part of the strops or rigging. There was insufficient buoyancy in the bag to lift either diver from working depth.

An investigation revealed the following:

- The immediate cause was that the diver, though competent for the task in hand, made a mistake during the rigging up of the lift bag;
- Underlying causes associated with the incident were considered to be:
  - risk assessment for the various parts of this task was not adequate nor fully applied
  - written instructions for internal use were not entirely clear or in sufficient detail (although an admittedly obvious precaution, neither IMCA D 016 – *Underwater air lift bags*, nor the company procedure for the use of lift bags based

on this guidance, included a step specifically stating that holdback and inverter lines should be attached BEFORE any gas is introduced)

- monitoring – checks and inspections of workplace precautions and risk control methods were not adequate.

The following corrective and preventative actions were made:

- Vessel 'safety focus' on checking/rechecking progress with activities/tasks;
- Revision of in-house procedures for use of lift bags, to include specifics on checking lines/rigging before inflation;
- IMCA was advised of the incident and a proposal was put forward for revision of IMCA D 016;
- Appropriate pre-job briefings were enhanced (where there is a use of lift bags) to ensure safety requirements and lessons learnt from the incident are communicated and applied as part of ongoing raising of awareness;
- Details and video footage of the incident circulated to others in industry for assistance with future training courses;
- Encouraging younger divers and supervisors to attend training courses on subsea lifting and rigging (including lift bags);
- Post saturation debriefs held with dive teams including details of the incident, review of video footage and sharing key lessons learnt.

The following lessons were drawn from the incident:

- The importance of ensuring adherence to task risk assessments so control measures identified are applied stringently;
- Checks and re-checks as per safe working procedure and standard practice should be enforced by workers and supervisors to ensure that risk control measures are implemented and maintained.

2 Near Miss: Person Fell from Boarding Ladder

A member has reported an incident in which a person slipped from the barge boarding ladder and almost fell into the water. During a short boat transfer from the accommodation vessel to the barge, the anchor handling tug moored alongside the barge and the crew transfer commenced. The transfers were performed in an orderly fashion with the personnel patiently waiting for the best moment to step from the anchor handling tug (AHT) on to the ladder of the barge. However, one person missed his step, lost his grip and fell between the AHT and the barge. He landed on one of the tyre fenders and was immediately helped inboard by other passengers still on the AHT. The transfer operation was aborted immediately and the AHT moved to the other (lee) side of the barge. The man that fell suffered only a superficial scratch on the right arm.

An investigation revealed the following:

- Existing project-specific personnel transfer protocols/procedures were not followed;
- There was inadequate allocation of resources. The dedicated crew tender was being used for other purposes at that time, resulting in the use of an AHT to perform a crew tender job;
- Precautionary measures already identified in the hazard identification (HAZID) (i.e. suitable embark/disembark arrangements) were not installed;
- The job should have been stopped under 'STOP WORK' authority, but nobody did so.

The following measures were put in place to prevent recurrence:

- Re-write of the project specific protocol/procedures for personnel transfer;
- Nomination of a 'marine traffic controller' to perform the following tasks
  - observe all vessel movements to and from the barge
  - provide advice on which side of the barge to moor up;
- Reinforce the 'STOP WORK' authority in project documentation and project induction;
- Determine if additional training is required for personnel engaged in vessel-to-barge transfer.

For further information on this subject, members may wish to refer to IMCA SEL 025 – *Guidance on the transfer of personnel to and from offshore vessels*.

3 LTI: Crewman's Finger Pinched When Moving the Gangway

A member has reported an incident in which a crewman suffered a serious pinch injury to his finger whilst moving a gangway. The incident occurred during preparation for departure from port when two crewmen and the second officer were removing and stowing the ship's gangway. The gangway was lifted onboard and whilst it was being slid along the deck for stowage, one crewman had his finger pinched between the gangway frame and an isolation valve on deck resulting in a deep cut to his finger.

The chief officer started to carry out first aid to stop the bleeding. The crewman was subsequently transferred to hospital where he received further treatment before returning to the ship. On his return, the decision was taken that the crewman would not be fit for duty and that he should return home to recover fully. An extended period of healing was necessary and the crewman was off work for five weeks.

Showing pinch-point between gangway frame and valve, and injured finger

An investigation revealed the following:

- The crane normally used for moving the gangway was out of order and awaiting repairs. Therefore a smaller gangway was used that allowed for crew members to manually handle it into position;
- This smaller gangway was normally stored on the cargo deck but was in the way during cargo operations and had been removed;
- The risk assessment was not adequate:
  - it did not adequately cover the gangway being manually handled
  - it did not identify the possibility of pinch points
  - other structures such as the isolation valve had not been highlighted as a potential danger;
- A toolbox meeting was held, but did not identify the additional risks involved with the manual handling of the gangway;
- No management of change was carried out for the change of gangway.

The following corrective actions were taken:

- Reviewed the risk assessment for this operation;
- Made engineering changes to the isolation valve so that it cannot become a pinch point;
- Investigated alternative gangway storage facility;
- Alter positioning of gangway to establish easy handling and positioning of the gangway by the crane;
- Introduce and require use of a management of change procedure.

4 Snagging Damage during Lifting Operations

The Marine Safety Forum (MSF) has published the following Safety Flash regarding an incident in which part of a platform supply vessel was damaged when a large piece of equipment was lifted off it onto an offshore installation. The load being lifted snagged on a walkway and caused the damage. The root cause of the incident was that the lift plan and risk assessment failed to identify all the hazards involved.

The report can be downloaded from www.marinesafetyforum.org/upload-files//safetyalerts/msf-safety-flash-12.13.pdf

5 Near Miss: Dropped Objects

The MSF has published the following two Safety Flashes regarding a number of recent near miss incidents involving dropped objects:

- In one incident on an offshore vessel, a piece of stainless steel flat bar fell from the davit from a height of 2 metres and narrowly missed a crew member. The report can be downloaded from www.marinesafetyforum.org/upload-files//safetyalerts/msf-safety-flash-12.14.pdf
- In another incident on a vessel lying alongside an installation, a steel bar about 1 metre long and 3 centimetres in diameter was seen to fall on to the deck from either the roof of a container or from overhanging scaffolding on the installation. The report can be downloaded fromwww.marinesafetyforum.org/upload-files//safetyalerts/msf-safety-flash-12.15.pdf.