

IMCA Safety Flash 09/04

October 2004

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 Possible Choking Incident - Diver's Helmet

Keywords: Helmet

While performing a task during a saturation dive, a man inhaled a 45mm diameter neoprene component from a diving helmet. The component has been identified by the supplier as a 'comfort pad', which had been installed to protect the diver's face from abrasion and cold.



As can be seen in the photograph the part is located on top of the retaining nut at the bottom of the oral nasal piece, in close proximity to the diver's mouth. In this incident a choking incident was avoided as the part was caught in the diver's teeth during inhalation. The cause of the detachment appears to have been a loss of bonding from the adhesive which attaches the two components.

The supplier of the helmet was notified and they have advised that a 'Correct Memo' is to be issued to the manufacturer ASAP. The manufacturer advised the application of an approved wet suit cement to reattach the pad.

The company concerned advised the supplier that the component was not listed on the parts list, nor mentioned in the checklist in the product manual. The relevant section however, although not specific to the component in question, gives clear instruction as to the preparation prior to the donning of the hat. The first statement is as follows:

"The helmet should be checked thoroughly before each mission. This should be done well in advance of the dive in order to be able to carry out any repairs or adjustments that may be necessary".

In close proximity to the relevant part in the manual, the instructions state:

"Check that the oral-nasal mask (44), the nose block device (43), and the oral-nasal retainer (121) are properly attached."

The company concerned is in contact with the supplier and manufacturers of the equipment, and there may be a following note to advise of progress. The company has recommended that close scrutiny is given to checking this part and other

similar components prior to every dive. It has advised its crews that a spare nut with the pad attached will be made available for quick turn-a-rounds should this be required.

2 Pipe Handling Frame Incident During Diving Operation

Keywords: Lifting

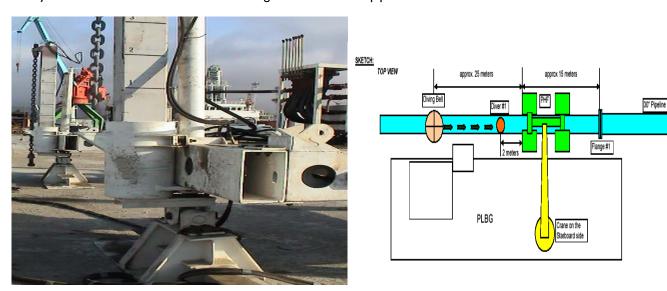
A member has reported an incident while a pipe handling frame (PHF) was being lowered to a depth of 100 metres from a barge using its starboard crane when a shift change was in process onboard. At the same time, a diving bell was at the depth of 155 metres, 25 metres away from the descending PHF area.

A diver left the bell and went to the seabed (depth 169 metres) and proceeded to the location of a flange to perform his task. This put him approximately 40 metres away in the direction of the descending PHF.

As the diver was moving towards the flange, he noticed cloud of 'muck' 2 metres away from him.

He immediately stopped and informed his supervisor. In the process, he made physical contact with the PHF, which had settled half on the pipeline and the seabed.

No injuries was sustained to the diver or damage done to the 30" pipeline.



The member has noted the following related points:

- at the time of the incident, a shift change was in process;
- ♦ the PHF dimension was 5.60m 5.20m 2.50m, its weight in air 18 tons and its weight in water 16.5 tons;
- the PHF was being lowered at a speed which was disabling the transponder needed to update the survey system;
- the transponder used to monitor the lowering and rising of loads and crane wires malfunctioned (sending intermittent signals).

The following investigation reached the following conclusions:

- The diving supervisor taking over shift and managing the subsequent lock-out of the diver could not reasonably be expected to know the situation of the PHF, other than that it was as planned, without another person informing him of any subsequent change, i.e. the deck foreman or the survey operator;
- The action to over-board the PHF and 'park it' at 100m until the supervisor could take control was a sensible and prudent administration strategy;
- The fact that the PHF was not parked at 100m should have been noted and passed to the supervisor by the crane operator and the survey team.
- The diving supervisor should have verified the position of the PHF prior to locking out the diver. Instead, he relied on the crane operator and the survey systems to manage the position of the PHF.
- ♦ The diving supervisor was negligent in locking out the diver and progressing the diver to the work location with the PHF suspended at the proposed 100m level.

3 Uncontrolled Decompression During Gangway Move

Keywords: Pressure

A member has reported that a man-way trunk and its adjacent entry lock on a hyperbaric chamber were depressurised to surface when a fitting on the man-way was struck by a gangway. The system was pressurised to 270fsw and vented to the surface in ten minutes through a 1/4" penetrator. The system held four divers in saturation.

The were no injuries and, other than the fitting, no further damage was caused.

Initial findings of the investigation are that:

- the trunk fitting was unprotected from direct contact with the gangway;
- the crew had lost control of the gangway while raising it to allow a materials barge alongside;
- there had been a valve on the internal aspect of the trunk, but this had not been secured after the valve was hit;
- the loss of pressure in the adjacent entry lock was attributable to a misalignment of the chamber inner door, which was immediately and easily realigned following the incident.



The potential for a less benign outcome for this incident was significant. Investigations are ongoing and the company will be issuing an internal memorandum on the issues surrounding this incident.

In the meantime, it has passed this alert to IMCA as a 'heads up' and a reminder that to expect and prepare for the unexpected is good advice. The company has asked all of its dive team members to scrutinise the arrangement of similar fittings on other diving spreads and to report any results which could predict the occurrence of a similar incident. Any proposed system modifications will then go through the company's management-of-change process.

Particular points to be noted are:

- hyperbaric evacuation systems and other dive equipment on deck should be adequately protected from being struck by other objects;
- all internal doors within a hyperbaric system should be aligned properly.