

IMCA Safety Flash 07/12

July 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

I LTI – Incident with Circular Saw Leads to Loss of Thumb

A member has reported an incident in which a crewman cut off the top of his thumb and his middle finger whilst working with a circular table top bench saw. The incident occurred when the crewman was cutting 5mm thick plywood with the circular saw in order to make shelving for other plywood pieces. The plywood was laid flat on the bench with the injured persons' hands laid flat on top of the plywood, but the plywood snagged and dragged the crewman's right hand towards the spinning blade. The injured person was medivaced ashore by helicopter in a timely manner after immediate first aid onboard had been administered. The surgeons at the local hospital managed to reattach the middle finger but the top of the thumb was lost.

An investigation revealed the following:

- ◆ No risk assessment had been conducted for the operation;
- ◆ The equipment was incorrectly set up and incorrectly operated by the injured person, though he stated that he was familiar with the operation of the equipment;
- ◆ The bench saw was supplied on board with the necessary safety equipment and full instructions for its safe operation. These instructions included reference to the use of the safety guard, a special tool for pushing the wood through, and the requirement to set the cutting blade to the correct level in accordance with the thickness of the wood that was being cut;
- ◆ The instruction manual appeared not to have been available at the workplace and the safety requirements for the safe operation of the saw were either not fully understood or were disregarded;
- ◆ There was no guard fitted to the circular saw blade.



Unguarded bench saw

The following lessons were learnt:

- ◆ All power tools have the potential to cause serious injury if they are operated incorrectly and without the manufacturers' approved and fitted safety devices;
- ◆ A risk assessment must be completed and filed prior to using any power tool. The assessment must take into consideration the following:
 - the competence of the persons using the equipment
 - the condition of the equipment being used
 - the provision and proper functioning of adequate safety guards and cut-out devices such as emergency stops and barriers
 - general working environmental conditions such as lighting
 - availability and condition of any personal protective equipment;
- ◆ Guards must always be fitted to equipment when designed to have them in place during operations;
- ◆ Power equipment should be operated in accordance with the procedures and rules set for their safe use;
- ◆ Full training, manuals and instructions should be available, and manuals and instructions should always be read and fully understood by even experienced operators;
- ◆ Complacency is a serious issue to be guarded against, especially in experienced personnel.

Members are also referred to IMCA safety promotional material:

- ◆ [IMCA SPC 08](#) – *Watch your hands: you've only got one set;*
- ◆ [IMCA SPP 08](#) – *Use tools and equipment properly.*

2 Small Fire and Minor Injury during Gas Cutting

A member has reported an incident in which a small fire caused a minor injury during the use of oxyacetylene cutting equipment. The incident occurred when a welder was using the equipment to cut a piece of steel plate on the deck of the vessel. When the oxygen ran out the welder attached the regulator to a full bottle of oxygen. On reigniting the gas the oxygen failed to reach the flame. As the welder was attempting to diagnose the fault, the oxygen hose detached from the burner. There was a fire which burned through the leg of his overall and burned his thigh.

The fire watcher reacted promptly and switched off the gases at the bottles. This action quickly extinguished the fire and prevented any escalation. The welder was taken to a local hospital where his injuries were found to be minor and after treatment he was allowed back to work. His injuries could easily have been more serious.

An investigation revealed the following:

- ◆ The gas hoses were attached to the burner at check valves with crimped fittings;
- ◆ The oxygen check valve was damaged by the effects of the fire;
- ◆ The acetylene check valve was still connected to the hose. When the hose was removed it was found to have a deep score across the fitting (see image below). The damage was consistent with the blade of a hacksaw. It appears to have been caused when the hoses were being re-terminated. It was assumed that the oxygen fitting had similar damage which had added to the likelihood of its failure causing the gas release and fire;
- ◆ The equipment had been inspected and passed as fit for use by an external agency three weeks prior to the accident. The equipment was only inspected visually and the hoses were not removed to examine the fittings;
- ◆ The welder was wearing standard coveralls which were not sufficient to withstand the effects of the fire. He was wearing nylon jogging trousers under his coveralls which melted and added to his injuries.



Damaged acetylene fitting

It was noted that there was no specific procedure for the connection of regulators to gas bottles, maintenance of the cutting equipment or for the re-termination of the hoses. The following actions were taken:

- ◆ The burning equipment was replaced;
- ◆ Instructions were included so that when re-termination takes place, the check valve fittings should be replaced with new fitting;
- ◆ Welders are now required to wear protective overalls appropriate to their work and additional training for welders was provided.

3 Two Recent Cases of Hand and Arm Injuries

The Marine Safety Forum (MSF) has published two recent safety flashes regarding incidents in which personnel have injured their hands or arms.

In the first incident, a crewman cut the palm of his hand on a sharp edge found on a door finishing strip. On investigation of the door in question an unexpected razor sharp steel burr (ragged edge) was discovered. This was most likely caused by the cutting process of the steel during the manufacture of the door. Other similar doors onboard were checked and some of these also had the same sharp edge.

The report can be downloaded from www.marinesafetyforum.org/upload-files//safetyalerts/msf-safety-flash-12.25.pdf

In the second incident, which occurred during mooring operations, a crewman got his hand trapped between the mooring line and a roller fairlead on deck. As his hand was dragged around the fairlead his arm was twisted and fractured.

The report can be downloaded from www.marinesafetyforum.org/upload-files//safetyalerts/msf-safety-flash-12.26.pdf

Members are reminded to encourage personnel to look after their hands and arms. IMCA produces a range of pocket safety cards covering aspects of hand and arm safety:

- ◆ [IMCA SPC 08](#) – *Watch your hands: you've only got one set;*
- ◆ [IMCA SPP 09](#) – *Watch out for pinch points;*
- ◆ [IMCA SPC 11](#) – *Stay safe at the wheel - Cutting and grinding safety;*
- ◆ [IMCA SPC 16](#) – *Caught between and pinch points: What you should know;*
- ◆ [IMCA SPC 17](#) – *Hand-arm vibration: Control the risks.*

4 Confined Space Entry Fatality

The Accident Investigation Board of Norway (AIBN) has published the following safety flash regarding a confined space entry fatality on board a vessel, in which a crew member died during cargo tank cleaning work. The incident occurred when a crewman entered the cargo tank without breathing apparatus to retrieve a cargo sampling device. The crewman collapsed inside the tank. He was rescued, but, despite efforts to save his life, he was later declared dead.

The investigation undertaken by the AIBN noted the following points:

- ◆ The crewman died as a result of oxygen deprivation. At the time of the accident, the oxygen content of the atmosphere at the bottom of the tank was probably less than 7.2%. The nitrogen content was probably over 90%;
- ◆ The crewman was experienced and familiar with the risks involved in entering the tank, and probably thought he could 'get away with it' and be able to climb down the ladder, retrieve the equipment and climb back up again without an oxygen supply;
- ◆ The cause of the fatality was probably not due to a lack of knowledge, but a lack of motivation in relation to complying with the procedures in the management system;
- ◆ Non-compliance with company confined space entry procedures was found to be more widespread on the vessel than just the crewman who died.

The report can be downloaded from www.aibn.no/Sjofart/Rapporter/2012-07-eng

5 Fall Fatality during Platform Abandonment

The US Department of the Interior Bureau of Safety and Environmental Enforcement (BSEE) Gulf of Mexico outer continental shelf (OCS) region has published the following safety flash regarding an incident in which an offshore employee was fatally injured while assisting in plugging and abandonment of a well and decommissioning a production platform. The incident occurred at night; the worker, working at the top of the well, was dragged by a load into an exposed well-access opening in the deck, and fell to his death.

Further information is available from http://www.bsee.gov/uploadedFiles/BSEE/Regulations/Safety_Alerts/SA-301.pdf