

IMCA Safety Flash 15/13

September 2013

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: Dropped Object Incident

A member has reported an incident in which someone sustained a serious neck injury as a result of a dropped object incident. The incident occurred whilst members of the crew were using a chain block/tackle assembly on a H-beam, to assist with manoeuvring the heavy lids to the chain lockers which were located on a mezzanine deck. As chain locker lids are too heavy to move manually, two months previously, an H-beam had been installed in this location to permit the use of a chain assembly/trolley.

One of the persons conducting the work manually pulled the chain aside; momentum caused the trolley for the chain block assembly to run along the H-beam track. There was no end stopper and the trolley fell off the H-beam. It fell approximately 1.2 meters, glancing off the injured person's helmet and landing on deck. The total weight of the trolley and chain block assembly was approximately 33 kg. The injured person walked off the job unaided, and was attended by the onboard medic. The initial prognosis was a fractured neck. A neck brace was applied and then the injured party was medivaced by helicopter.

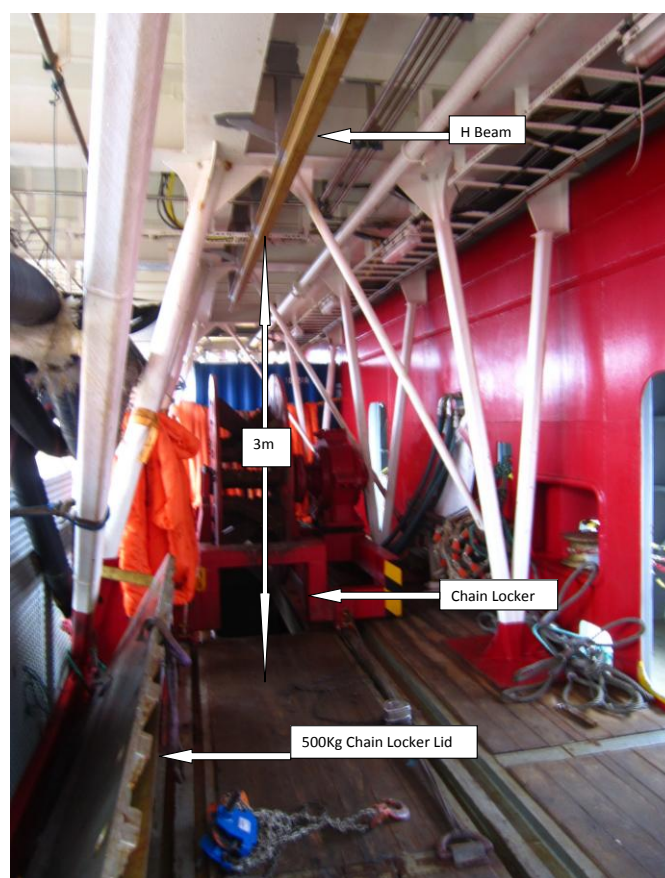


Figure 1 - General arrangement on mezzanine deck



Figure 2 - H-beam with missing 'Trolley Stopper'

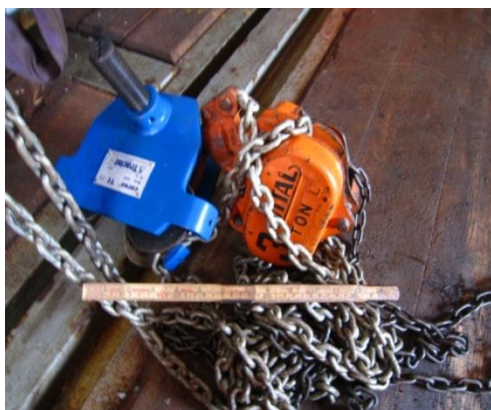


Figure 3 - Chain Assembly

Our member's initial investigation noted the following immediate causes:

- ◆ There was no 'trolley stopper', or similar device, on the H-beam, to prevent chain assembly/trolley from falling off the end of the beam;
- ◆ The injured person was working under a unsecured load and ostensibly unaware of the consequences of pulling the chain assembly along H-beam when there was no trolley stopper;
- ◆ The injured person disconnected the chain from chain locker lid.

Our member noted the following root causes to the incident:

- ◆ Organisation
 - Although there were four persons working on the particular job, there was a lack of supervision, as work instructions were not followed;
 - Work equipment was allowed to be used, despite being known and identified as 'faulty'. The day before the incident it had been reported that there was no 'trolley stopper' on the retrofitted H-beam. No action was taken to address this very serious omission;
 - The potential of falling objects was not recognised or identified as a foreseeable and significant risk.
- ◆ People
 - Work instructions were not followed. The injured person disconnected chain from chain locker lid; this was not a specified work instruction within documentation, nor instruction from the lead AB. The injured person appeared to have been working from his own initiative in undertaking this action.
- ◆ Environment
 - There was a lack of situational awareness. The injured person and his colleagues, whilst familiar with the generic activity of opening chain locker doors, were not familiar with the new H-beam and the overhead chain assembly tool and this may have contributed to the incident occurring. It was noted that this was the first time the H-beam/chain assembly tool arrangement had been used at this worksite.

Our member took the following actions:

- ◆ Installed a trolley stopper on that particular H-beam;
- ◆ A fleet-wide "time out for safety" was carried out, and further DROPS awareness training was organised;
- ◆ A DROPS survey was performed with all similar beams inspected and maintained at member worksites;
- ◆ Checked certifications of H-beam, lifting equipment and chain assembly requested for inspection.

Members' attention is drawn to the following IMCA material which may be of assistance:

- ◆ [IMCA SPP 04](#) - *Avoiding dropped objects*;
- ◆ [IMCA SPC 12](#) - *Avoiding dropped objects*.

2 Incidents Involving Use of Scaffolding

A member has reported a number of incidents involving the use of scaffolding. Many activities on members' vessels have to be done at locations which are hard to access or at a height. In order to be able to work at these locations scaffolding is erected. To ensure a safe and stable platform to work from, scaffolding is built according to industry standards and practices; a competent person should inspect the scaffolding before use, and tags are used to indicate if a scaffolding is safe to access or not. Despite these and other precautions, crew should still remain fully aware of their own safety and the safety of others when using scaffolding.

Four recent scaffolding related incidents, each with a brief summary as to the immediate cause:

Incident #1 - after a test blow of a hydraulic hammer, it was discovered that a scaffold pipe was damaged between the anvil and the casing.

Immediate cause: Although the site was inspected, the hazards were not recognised.

Incident #2 - a crewman was injured after tripping over a scaffold tube (supporting the handrail) whilst carrying an angle bar of approximately 15 kg.

Immediate causes: Poor co-ordination of the work activities, and there was no signage in place to warn of the obstacles.

Incident #3 - during renewal and repair activities, a plate supporting scaffolding was removed and replaced with a metal plate without having the scaffolding inspected by a competent person.

Immediate causes: Lack of sharing information between supervisors; owing to time pressure a "solution" was found instead of stopping the job.

Incident #4 - scaffolding boards, which were out of sight, on top of the exhaust line, were left over from repair works and started to smoulder due to the heat of the exhaust line.

Immediate cause: Improper housekeeping after work was finished.



Scaffold pipe hits anvil of hydraulic hammer



Tripping over scaffold board



Smouldering scaffold boards

Our member drew the following lessons:

- ◆ Perform a full workplace risk assessment before starting the work;
- ◆ Keep walkways clear of obstacles, or otherwise mark obstacles;
- ◆ Never modify scaffolding;
- ◆ Remove all scaffolding material after the job, and contact scaffolding supervisor when scaffolding material is left behind.

3 Fire on Board and Sinking of Liftboat Mako

The National Transportation Safety Board of the United States (US NTSB) has published the following safety flash regarding the US-registered liftboat *Mako*, which caught fire while supporting oil drilling operations about 6 miles off the coast of Nigeria. No one on board was injured, but the *Mako* was a total loss in the accident.

The safety flash can be downloaded from www.nts.gov/doclib/reports/2013/MABI314.pdf

4 Diving Helmet: Failure of Sealed Pull Pin

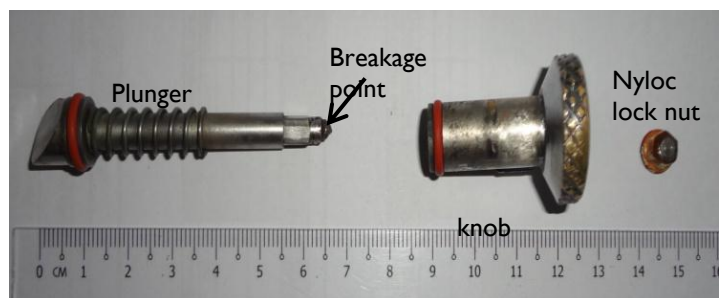
A member has reported an incident without injury in which the knob of a sealed pull pin assembly (p/n 505-110) on a Kirby Morgan diver's helmet came apart. The incident occurred after an air dive, when the dive team was assisting the diver to remove his helmet. On the block side of the hat, the sealed pull pin came apart whilst undressing the diver. Upon inspection, the dive team found that the threaded part of the shaft on the plunger, at the base of the threading, just above the square key, had broken and the knob had separated from the pull pin assembly. The Nyloc lock nut was connected to the top threaded section and still in the end of the knob. All parts of the pull pin assembly were recovered. Both sealed pull pin assemblies on the helmet were removed and replaced.

Our member contacted Dive Lab to discuss the incident. From photographs and information sent by our member, it was determined that the pull pin shaft had crevice corrosion.

Kirby Morgan strongly recommend that the tender, stand-by diver, or at least a second person, ALWAYS perform a pre-dive check that includes checking the sealed pull pins to ensure that both are functioning correctly and are fully engaged and latched in the closed position prior to each and every dive.



Helmet sealed pull pin slot after failure



Parts of failed sealed pull pin

The following actions were recommended:

- ◆ Pre- and post-dive checks;
- ◆ Regular careful inspection of pull pin assemblies, in accordance with Dive Lab checklist appendices A2.1, A2.2 and A2.23;
- ◆ Regular check of pull pins for signs of leakage and corrosion, and to ensure that pull pins are operating properly;
- ◆ All torque specifications for fasteners (10-15 inch/lbs for the Nyloc Lock Nut on the pull Pin assemblies) should be strictly followed.

Kirby Morgan notes that the following further information is available at www.kirbymorgan.com:

- ◆ Pull Pin Overhaul procedure www.divelab.com/assets/pdf/training-guides/Pull_Pin_Procedure.pdf;
- ◆ Bulletin #2 of 2013: *Sealed Pull Pin Inspection & Maintenance*;
- ◆ Bulletin #6 of August 23, 2011 *New Kits Part Numbers 425-090, 425-099, 525-211, 525-373, 525-385 and 525-718*;
- ◆ Bulletin #7 of December 1, 2010 *Change to Product Bulletin 530-110 Lock Nut Replaces 330-320 Lock Nut*.

5 Injury - Failure of Hatch Holdback Arrangements

The Marine Safety Forum has published the following safety flash, regarding an incident in which a crew member was injured when there was a failure of the mechanism holding back a heavy watertight door. The incident occurred because the arrangements for holding back the door were not adequate.

The safety flash can be downloaded from www.marinesafetyforum.org/upload-files//safetyalerts/msf-safety-flash-13.32.pdf