

IMCA Safety Flash 18/20

June 2020

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 info@imca-int.com

Any actions, lessons learnt, recommendations and suggestions in IMCA safety flashes are generated by the submitting organisation. IMCA safety flashes provide, in good faith, safety information for the benefit of members and do not necessarily constitute IMCA guidance, nor represent the official view of the Association or its members.

1 Serious Injury Caused by High-Pressure Washer

<p>Applicable Life Saving Rules:</p>			
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What happened?

A work team supervisor sustained a laceration to his upper right thigh caused by a high-pressure water jet. The injury required several stitches and the injured party was retained in hospital overnight. The incident occurred when personnel from a third-party shipyard company were using a high-pressure water jet (250 bar) to clean the vessel thruster grating located on the dock floor. The operator of the high-pressure lance did not anticipate the hydraulic kick-back force when engaging the trigger of the lance. The surge in water pressure caused him to step back and turn to his left to regain his footing. In doing this, his lance turned with his body and inadvertently sprayed his supervisor who was standing behind him.



Thruster grating being cleaned at the time



TOFS held with cleaning team

What were the causes? What went wrong?

The operator did not install barriers around his working area and the supervisor failed to enforce the use of barriers on the dock bottom. The use of barriers was required by the task risk assessment (TRA). The supervisor had placed himself in the line of fire by approaching the operator from behind without the operator knowing he was there.

What actions were taken?

- ◆ Take appropriate Time out for Safety (TOFS);
- ◆ Ensure all your site task risk assessments (TRAs) involving high-pressure equipment state the need for appropriate barriers to be in place, and at a safe distance from the work activity, to prevent access to all non-essential personnel;
- ◆ Ensure that those supervising tasks involving high-pressure equipment understand that they are non-essential personnel during the task;

- ◆ Ensure that any vessel in dry dock has a formal plan to restrict access to the dock bottom and barriers are in place where there are identified hazards on the dock floor;
- ◆ Ensure that all personnel involved in the operation of high-pressure equipment have the appropriate competency and use personal protective equipment rated to the pressure of the equipment in use.

Members may wish to refer to:

- ◆ [Guidance on safety in shipyards](#) (IMCA HSSE 032)
- ◆ [LTI: diver injured during water jetting operations](#) (July 2018)
- ◆ [LTI: leg injury caused during hp water jetting](#) (May 2017)
- ◆ [Lost Time Injury \(LTI\): serious hand injury during high pressure washing operations](#) (May 2016)
- ◆ [Diver sustains water jetting injury](#) (March 2015)

Also of interest:

- ◆ [Code of practice for the use of high pressure jetting equipment by divers](#) (IMCA D 049)

2 MSF: Water Based Mud Spill on Deck

What happened?

The Marine Safety Forum (MSF) has published [Safety Alert 20-05](#) relating to a spill of water-based mud. During routine mud transfer operations at an offshore installation the rig hose parted from the vessel's manifold resulting in a release of approximately 2,500 litres of mud to the deck. The crew quickly stopped the transfer and proceeded to use standard SOPEP equipment on-board to contain the spill on deck and recovered the contaminated mud within an empty mud tank. The spill was entirely contained with no loss to the environment.



What were the causes? What went wrong?

The manifold is normally fitted with a hammer union connection. It was discovered after initial inspection of the vessel's manifold that the thread between the manifold and the hammer union was found to be corroded.

Further inspection of the manifold threads determined that the threads in place were incompatible. The original manifold threads on-board the vessel were non-compliant to the standard National Pipe Thread (NPT) connection and therefore did not correctly engage. As a result, these threads did not provide an adequate seal which increased the opportunity for corrosion to occur. This led the connection, over a period of time to become weakened and resulted in the hose parting from the manifold.



What actions were taken?

- ◆ **Careful check to ensure different threads are correct and compatible with one another;**
- ◆ Regularly monitor and inspect the condition of the threads on manifolds by implementing into the vessels' planned maintenance system (PMS);
- ◆ Pre-use checks to be conducted as part of the wet bulk transfer checklist to incorporate visual inspections of the manifold connection threads.

Whilst in this incident there was no harm to persons or to the environment, the issue of proper management of threads, most particularly the ensuring of compatibility, is a topic that has been raised before. There have been a number of incidents some of which have had tragic consequences.

Members may wish to refer to:

- ◆ [Sewage Spilled onto the Quayside](#)
- ◆ [Low pressure mud hose parted](#)
- ◆ [Bailout cylinder and pillar valve compatibility failure](#)
- ◆ [Failure of threads – Follow up to “Corrosion coupon plug ejected from pressurised pipeline”](#)

3 Lifting Basket with Unsecured Cargo Which Fell Out

Applicable Life Saving Rule:		
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What happened?

A cargo basket containing equipment was to be lifted from the vessel deck to an offshore installation. The crane on the offshore installation was unable to lift the load, resulting in the basket dropping back to deck and some of the equipment sliding out the basket onto the vessel deck.



Basket with unsecured load



Equipment slid out of basket during lifting

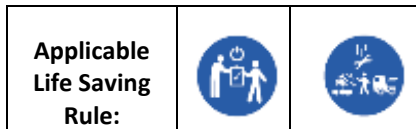
What were the causes? What went wrong?

- ◆ There was no inspection by deck crew on basket acceptance. The unsecured cargo inside the basket was neither noticed nor reported;
- ◆ The weight of the load as understood in information received was 1800kg; but the actual load weighed 4000kg;
- ◆ Whilst the unsafe condition was identified during basket hooking process, the Stop Work Policy was not applied by the vessel crew.

Members may wish to refer to:

- ◆ [Unsecured Cargo Inside Containers](#)
- ◆ [Loading And Securing Of Containers](#)
- ◆ [Loading And Securing Of Cargo](#)

4 Near Miss/Positive: Crew Exercised Stop Work on New Gangway



What happened?

A newly installed gangway was found inadequate and unsafe. After the first transfer test on the gangway, the Captain observed several unsafe conditions – a trip hazard and a minor hydraulic leak – and he immediately exercised the Stop Work Authority.

On further inspection of the gangway some cracks were found on the welding seams, which also needed to be addressed before the gangway could be safely used. The Captain ordered the quarantine of the gangway until the corrective actions that he and his crew had identified could be implemented.



Cracked welding



Highlighting a trip hazard



Hydraulic oil leak

Positive findings:

- ◆ The crew thoroughly inspected the gangway before use;
- ◆ The crew implemented the Stop Work Authority when the gangway was found to be unsafe;
- ◆ The gangway was quarantined until necessary repairs are completed and it is safe to use.

What actions were taken?

- ◆ Remind crew that they are authorised and expected to exercise the Stop Work Policy without fear of reprisal if they are in doubt about any aspect of safety;
- ◆ Conduct a prestart/installation inspection of all equipment, including equipment delivered by the client, to ensure that it is fit for purpose and safe to use;
- ◆ Any equipment found to be unsafe should be quarantined and communicated as unfit to use.

Members may wish to refer to:

- ◆ [Gangway failure \(NOPSEMA\)](#)
- ◆ [“Don’t Forget About Gangways” – USCG: Pilot Dies In Gangway Accident](#)
- ◆ SOLAS. REGII-1/3-9. Means Of Embarkation On And Disembarkation From Ships

5 Serious Incidents Involving the Weather

Applicable Life Saving Rule:					
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A member has published a safety notice designed to raise awareness with the number of serious weather related incidents which have occurred within their fleet over the last few months. The aim is to highlight the following:

- ◆ The **impact of weather** on vessel operations and equipment;
- ◆ The **importance of effective review** of weather reports;
- ◆ The **importance of thorough dropped objects inspections**;
- ◆ Measures to prevent similar incidents.

A number of events are mentioned, some of which have been published as part of IMCA Safety Flashes:

- ◆ **Dropped lightning conductor** – dropped because of vibration and environmental conditions over some time;
- ◆ **Dropped gangway** – gusts of strong and violent wind (>50 knots) caused the vessel to move off the quay;
- ◆ **Dropped objects (multiple objects from salt sack)** – load was caught by 30 knot winds;
- ◆ **Failed Quayside Bollard. Minor damage to vessel hull** – wind increased to 61 knots and bollard failed;
- ◆ **Dropped object** – object fell during or after storm with >50 knot winds.



Image: Wikipedia

Our member notes:

- ◆ Although the findings of the incidents differ, they all have one common casual factor – adverse weather and strong winds;
- ◆ All these incidents had the potential to cause a serious injury or fatality.

What lessons were learned?

- ◆ Effects of weather and its unpredictability were not fully understood or considered;
- ◆ Inappropriate assessment of weather effects on tasks and operations undertaken;
- ◆ The environment can have immediate and long-term effects on equipment, objects, securing and secondary retention.

What actions were taken?

- ◆ The importance of in-depth weather report review and including weather in all your toolbox talk (TBT). It may introduce risks to the job or create a hazardous working environment;
- ◆ The importance of considering the effect of weather on all your activities, equipment and potential dropped objects;
- ◆ Continuous monitoring of the weather and immediate communication of any changes to all who may be affected;
- ◆ Guard against complacency with routine tasks and always be vigilant;
- ◆ Conducting thorough 'routine drops inspections' especially prior to severe weather and after environmental events.

Members may also wish to refer to:

- ◆ [Galley Equipment Broke Free Of Fastenings During Severe Weather](#)
- ◆ [Near Miss: Cargo Shifted On Deck In Heavy Weather](#)
- ◆ [Don't Lose Your Tow In Heavy Weather \(USCG\)](#)
- ◆ [Man overboard fatality \[during heavy weather\] \(USCG\)](#)