

IMCA Safety Flashes summarise key safety matters and incidents, allowing lessons to be more easily learnt for the benefit of all. The effectiveness of the IMCA Safety Flash system depends on members sharing information and so avoiding repeat incidents. Please consider adding safetyreports@imca-int.com to your internal distribution list for safety alerts or manually submitting information on incidents you consider may be relevant. All information is anonymised or sanitised, as appropriate.

1 Fatality due to fire incident and fall from height

What happened

A rope access technician had a fatal fall from around 8.5m while engaged in routine maintenance activities on a pipelay tower. Work was conducted by different vessel work groups, with each team independently completing their permits to work, following the vessel's safety management system's requirements. The rope access technician was doing work consisting of chipping, brushing and painting. To clean the area before painting, the worker decided to bring a bucket of thinners (solvent). At the same time, another group of workers were engaged in tack welding activities at the top of the tower. Some of the welding particles fell from the welding location and ignited the bucket of thinners. The heat produced by the fire melted the rope access technician's body harness resulting in a fatal fall from the height of approx. 8.5m.

Applicable
Life Saving
Rule(s)

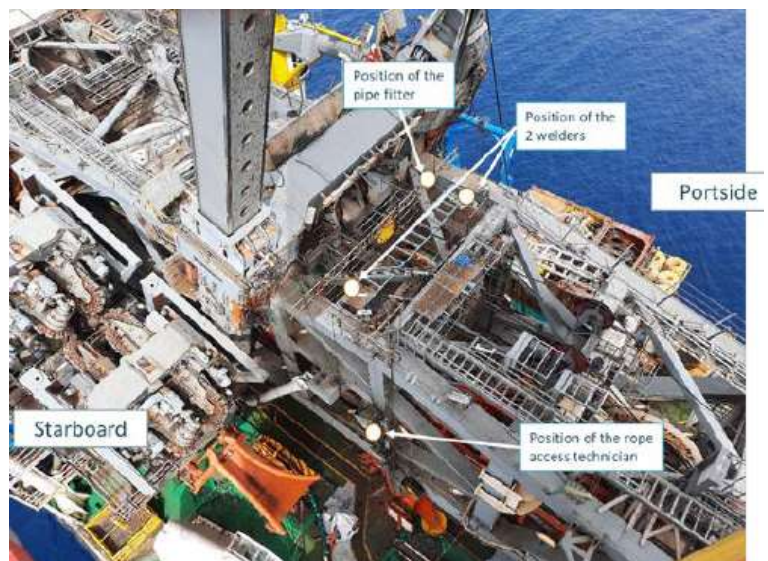


Hot Work



Work
Authorisation

- The potential conflict between the two activities was not properly evaluated;
- Sparks were coming down from the welding location above because of incomplete protection of the area with fire blankets;
- Thinners (solvent) were taken from the paint store without authorization and its use was not foreseen for the specific activity;



The Bahamas Maritime Authority has published [Safety Alert 23-01](#) into this incident and highlights the following:

- Lack of full team representation and involvement in pre-planning meetings;
- Safety management system requirements were implemented, but in isolation: rendering them ineffective by other simultaneous operations;
- Inadequate high-level supervision and control for multiple activities;
- The vessel's "stop work" policy was ineffective.

Lessons learned

- Permits to Work should correctly identify all salient aspects of the job before starting any activity, including:
 - All hazards and precautions to be taken by the working team
 - The precise location of the work
 - The exact activities for which it has been issued

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- Any potential SIMOPS
- All stakeholders should be involved with pre-planning meetings and tool-box meetings;
- If an activity needs to be stopped, the Permit to work should be withdrawn;
- While conducting simultaneous operations, effective supervision means maintaining oversight of the entire operation to enable identification of areas which overlap and the associated potential risks.
- Address vessel and crew safety holistically, not as isolated departments, to ensure all teams have a unified understanding of ongoing operations and how it relates to their work. This contributes to an overarching understanding of risk, rather than just a team-specific focus;
- Ensure fuller understanding and use of **Stop work authority**.

Members may wish to refer to:

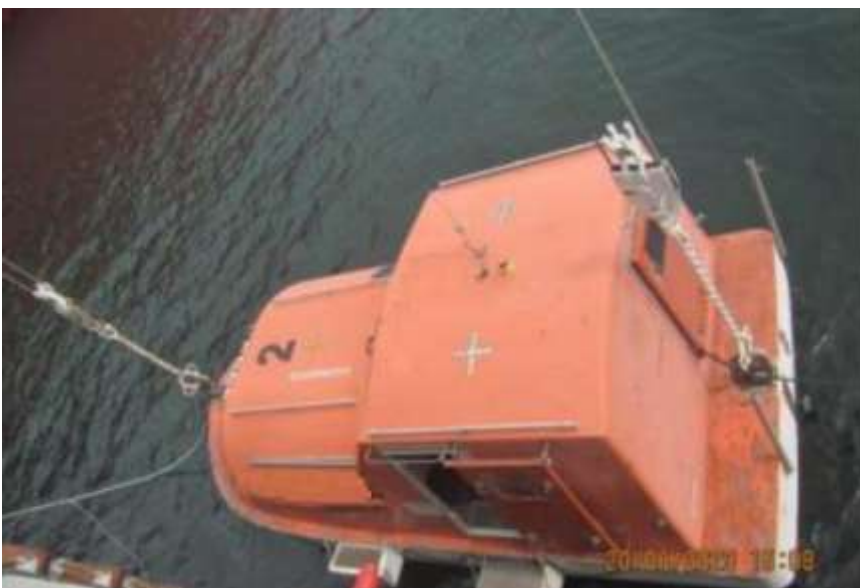
- [Management of simultaneous operations during demobilisation](#)
- [SIMOPS – Smoke from hot work task enters confined space](#)
- [Welder at work injured during close SIMOPS](#)
- [Dropped objects in dry dock](#) [*the issue being interfacing of management and control of work between different parties in the workplace*]

2 Fall from pilot ladder

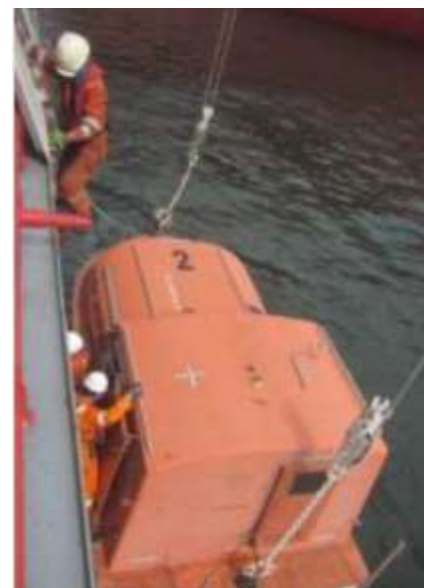
What happened

A Chief Officer slipped and fell from a pilot ladder onto a lifeboat, suffering minor bruising. The incident occurred on a vessel which was coming to the end of ten days spent alongside in a shipyard. The crew were performing a last pre-departure mandatory drill, which was a man overboard recovery with the lifeboat afloat, combined with the periodic over-boarding sea trial of the lifeboat itself. A Pilot ladder has been rigged to join the lifeboat which was already lowered into the water. The Chief Officer climbed down the ladder, and as he did so it suddenly slid downward. He let go of the ladder immediately for fear of getting his hands caught between the sliding ladder and the hull and fell about 2m directly onto the lifeboat.

He was able to clamber safely back on board. The next morning, he reported small bruises on his chest: no medicines were prescribed, and he continued to work normally.



Lifeboat



Person climbing down Pilot Ladder

What was the cause

The Pilot Ladder was not properly secured.

Lessons learned

- Work Preparation - always rig the Pilot Ladder securely, ensuring that it is properly attached to the vessel's side and positioned at the correct distance from the waterline. The installation of the pilot ladder should be checked by an officer, who is responsible for ensuring it is correctly installed and complies with the required safety standards
- Training Familiarization - ensure the crew responsible for rigging and handling the Pilot Ladder are properly trained and familiar with the proper procedures for deploying, securing, and stowing the ladder.

Members may wish to refer to:


- Unexpected truck movement caused rigger to fall off a ladder
- Near miss: pilot ladder – side rope failed
- Fatal fall aboard tanker *Marinor* [ladder slipped]

3 Finger Injury while setting up pipe cutting operation

What happened?

A crew member was setting up a pipe cutting machine in a vertical position to cut welding that was done on a jumper for repair, when they suffered a finger injury. The crew member opened a supply valve on an air caddy with his left hand, while his right hand was on a scaffold tube supporting the equipment, and suddenly the equipment moved. The crew member got their right middle finger trapped in between the scaffolding tube and the lower part of the cutting machine protruding part.

Applicable Life Saving Rule(s)



Bypassing Safety Controls Line of Fire



What went wrong

One of three valves in the machine was found to be defective during post-incident simulation. Company standing instructions required that the machine be turned manually during the setup validation or readiness check (to confirm its proper setup *before* energizing it). This was not done.

The crew member intended to perform a setup validation check by energizing the equipment. He closed the Inlet valve (V2 in photo), and then must have opened the Supply valve (V1 in photo) to perform the check. Due to the fault on the inlet valve (V2), as the Supply valve (V1) was opened, the inlet valve (V2) allowed air to pass and energized the machine causing it to rotate. As the machine rotated, it trapped his finger that was placed on the scaffold tubes.

At the time of event the injured person was on the working platform alone.

What was the cause

Our member's view is that there were two causes:

- The method of work did not follow the standard procedure;
- The injured person put his hand in an unsafe place.

Lessons and actions

- Don't take short-cuts - equipment operating procedures and manuals are there for a purpose and should be followed;
- Check that you – all of you - is **out of the Line of fire**. Always ensure body parts are kept away from moving or rotating parts;
- Our member:
 - Improved toolbox talks to increased awareness of unsafe positioning in this cutting operation and other tasks;
 - Refreshed training in the use of this equipment for the operators;
 - Improved procedures to make the task safer;
 - Developed and implemented pre-use checklist to cover inspection of cutting machine and accessories (air supply hoses and valves).

Members may wish to refer to:

- [Don't put your finger in the wrong place: failure to isolate equipment causes serious finger injury](#)
- [Hand injury when caught in machinery](#)

4 BSEE: Hazards to Personnel During Lifting Operations

What happened

The United States Bureau of Safety and Environmental Enforcement (BSEE) has published [Safety Alert 468](#) relating to "red zone" or LINE OF FIRE hazards and increased risk during lifting operations.

BSEE defines "**red zone**" hazards, as hazards that "*occur when a worker is in the direct path of an object if a release of energy from that object would cause the worker to be hit, struck, pinched, impaled, crushed, or caught between objects. Injuries from red zone incidents range from minor incidents, such as a pinched finger, to fatalities.*"

BSEE notes that the offshore work environment is inherently hazardous with heavy equipment, swinging lines, complex machinery, and a myriad of other hazards posing a potential risk to personnel. Recent examples include:



- A rig was in the process of offloading a 20m basket from the deck of an offshore supply vessel when the deck hand was pinned between the load and the vessel rails (see illustration);
- A load shifted during an equipment positioning activity, causing an employee’s arm to be caught between the load and handrail;
- A crane raising a junk tool weighing 3.5 tons shifted toward a worker and pushed him back into a basket that was on the deck.



IP on aft of boat entered pinch point



Load lifted, pinning IP between load and bulwarks

These are just a few of the dangers workers routinely face when operating offshore. By simply barricading the work areas and restricting access to areas where the worker is

exposed to potential harm an operator can mitigate these risks. BSEE recommends establishing barricades to restrict workers from entering areas where they can be at risk from lifting operations. In addition, BSEE recommends operators and their contractors, where appropriate, consider:

- Developing and enforcing Line of Fire or “red zone” rules and when possible, avoiding all areas barricaded off or designated as higher risk;
- Handling taglines with care. Taglines can become a hazard when tangled or when too close to the load. Making sure taglines are the appropriate length and only used when necessary for the job. Limiting hand placement on the load when possible;
- Using proper rigging (e.g., slings, straps, etc.) and proper lifting devices (e.g., cranes, tuggers, etc.) for each specific job and verifying that they are in adequate condition;
- Being aware of the surroundings and planning an exit route should one be needed. During a lift, watching the load in case it begins to sway and never standing beneath it. Ensuring that you are not in an area where you, or any part of you, can be pinned against something. Making sure there are no obstructions in your vicinity that could be a pinch-point hazard, and always having a clear escape path;
- Constantly monitoring weather conditions. High winds and sea swells will cause increased movement of facilities, vessels, and loads. Stopping the job if the load cannot be fully controlled during heightened weather conditions;
- Avoiding complacency on the job. Offshore is a dynamic environment that must be continuously monitored to ensure safe operations, especially during lifting operations. Maintaining concentration on all tasks throughout a tour, even if monotonous at times. Speaking up at any time if you are experiencing exhaustion and need a break;
- Communicating clearly to ensure everyone is ready to begin the lift and maintaining communication throughout the lift to make sure everything is on track.

Members may wish to refer to:

- IMCA HSE 019 [Guidelines for lifting operations](#)
- BSEE Safety Alert 424 [Uptick in Lifting Injuries due to Unrecognized Pinch Point Hazard](#)
- BSEE Safety Alert 445 [Stored Energy in Slings Causes Multiple Injuries](#)
- BSEE Safety Alert 446 [Unsafe Working Practices Result in Crane Injury](#)

5 UK HSE – worker struck in the face by a crane hook

What happened

The UK Health and Safety Executive (HSE) has fined a manufacturer after an employee lost an eye when he was struck in the face by a crane hook. The worker was attempting to free a paper reel, which had become stuck on the exit rails of a paper machine, by using an overhead crane. During the operation, part of the crane contacted the spinning reel, causing the crane hook to swing violently striking the man in the face. He suffered the loss of an eye, multiple fractures to the face and lost 9 teeth. See [press release here](#).

Applicable
Life Saving
Rule(s)



Bypassing
Safety
Controls



Safe
Mechanical
Lifting

What went wrong

- The company had:
 - Failed to carry out a suitable and sufficient risk assessment to identify the hazards posed when the machinery went wrong and did not function correctly;
 - Failed to ensure that control measures were in place to keep workers safe;
 - Failed to provide workers with information and instructions on what to do when machinery went wrong and did not function correctly – something which was happening regularly.

Lessons learned

- Risk assessment should include the hazards involved in non-routine operations and in dealing with things going wrong;
- Information should be provided for everyone working near machinery on what could go wrong and what to do when it does;
- Be aware of “routine violations” where it may become normal to break rules or put yourself in danger to get the job done.

Members may wish to refer to:

- IMCA HSSE 019 [Guidelines for lifting operations](#)