

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 Diver exposed to unplanned release of production gas

What happened

During saturation diving activities at 65m water depth, from a Diving Support Vessel (DSV), a diver was exposed to a sudden and unplanned release of hydrocarbon gas under pressure (estimated pressure >150bar). The pressure release resulted in ejection of a stuck blind stab and the diver being pushed backwards by the force of the gas. The diver was unharmed. Our member considered the incident to be a very high potential near miss.

Nearing the end of the bell run, saturation divers were working on a subsea skid when they identified incorrect tagging. Work was stopped and the divers were then instructed by the Diving Supervisor to proceed with a dummy stab removal at the same location, using hand tools (T-Bar and hammer). During initial hammering of the dummy stab, a discharge of gas bubbles was observed coming from the receptacle, followed by a larger one. At this time, both divers were instructed to stop working for ten minutes to allow for the gas to discharge. Diver 1 was instructed to return to the bell and Diver 2 was subsequently instructed to restart tapping the blind stab with the hammer. Suddenly the dummy stab ejected and trapped production gas was released. Diver 2 was positioned just outside the line of fire, but he was pushed backwards by the force of the gas release, though he remained on the top of the skid.

Applicable
Life Saving
Rule(s)



Bypassing
Safety
Controls



Energy
Isolation



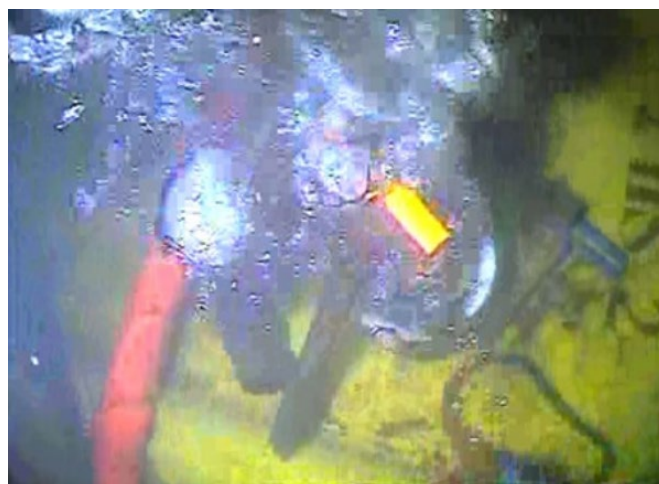
Line of Fire



Work
Authorisation



Stuck blind stab



Production gas bubbles coming out of the receptacle

What went wrong

- Unlike the isolation in place for previous work, the isolation of this skid could not be demonstrated because of the configuration of the pipework and because there was no way to vent the void behind the blind stab;

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- Dummy stab removal with diver and hand tools was a deviation from procedure. There was no time out taken to discuss the change in task or initiate a Management of Change procedure;
- The Dive Supervisor had previously used divers to remove blind stabs, which created a normalisation of this way of working;
- The task Specific Risk Assessment was not adequately reviewed at the Toolbox Talk;
- ROV tooling developed for blind stab removal was available and ought to have been used as per the task specific Risk Assessment but was not used;
- Specific task plans were not developed for diver dummy stab removal;
- Several people could have intervened and stopped the job but did not. Only one person – the Pre-Commissioning Engineer had a concern and highlighted the non-compliance with procedures, but did not exercise stop work authority;
- The divers continued with dummy stab removal despite the gas bubble release without challenging the ‘as-found’ condition.

Actions to consider

- The incident has similarities to a previous incident that occurred during diving operations in the North Sea (see reference below). It is important to verify that lessons are learned from previous incidents and that preventative and critical controls from high potential incidents need are in place;
- Recognise how we really do things – The **“Stop Work Authority”** needs to be reinforced across all worksites and operations;
- Be curious, keep questioning all aspects of what may go wrong. Dedicate time to go through all potential risks to consider and implement adequate mitigation controls.
- Remind and empower our personnel to stop, ask the question(s), assess then act.
- Avoid becoming complacent by continually asking oneself “what if ...?”
- Remind each other that we have procedures and processes which are there to help us.
- Review procedures and task plans to ensure that there are critical “hold points” included detailing the use of the ROV tools.

Members may wish to refer to:

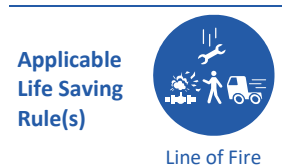
- [Differential pressure: dummy choke ejected close to divers](#)
- [Near-miss: Gas release from subsea pipeline](#)

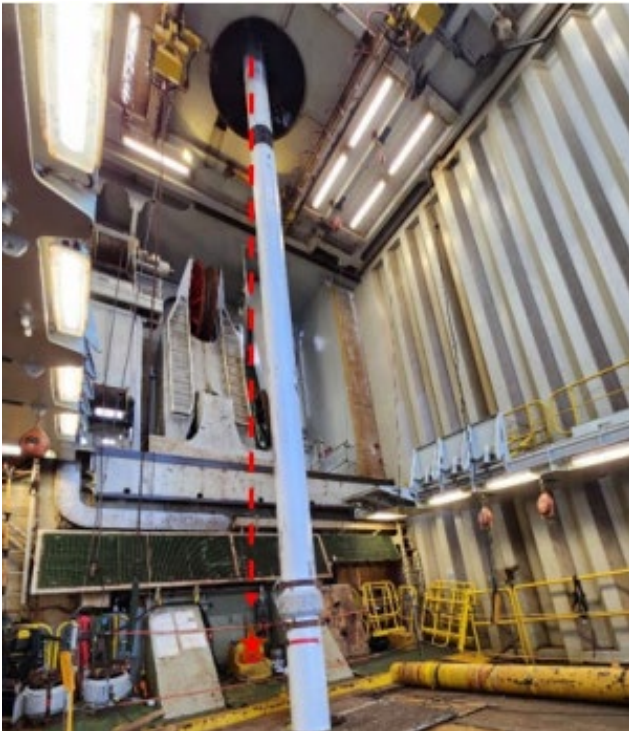
2 Dropped object – wooden packing block

What happened

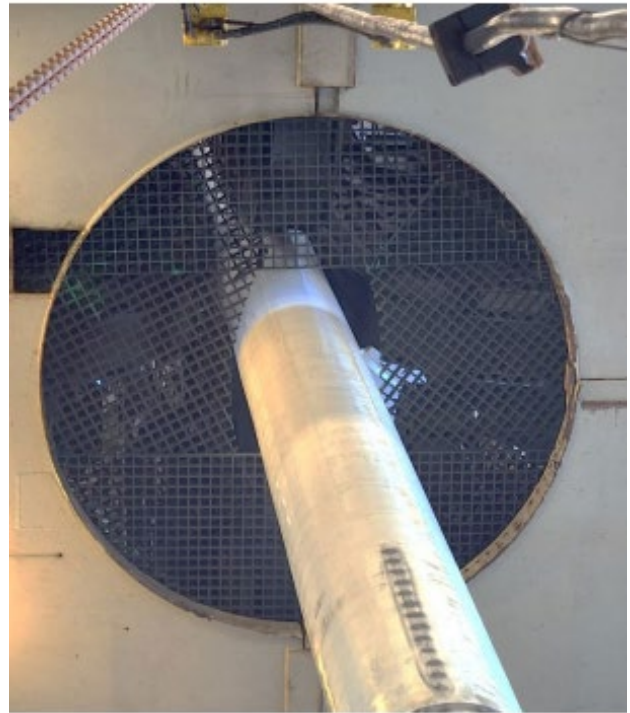
During pipelaying operations, a wooden packing block (approx. 1kg) became attached to the pipe whilst spooling off the reel. It crossed the main deck and entered the pipelay tower with the pipe, where it became detached and fell more than 10m through the lay system before landing on the workstation floor. There were no injuries.

Our member noted that this was the first time a packing block had breached all barriers in the tower and landed in the workstation. Falling wooden blocks are expected during spooling operations, often falling into the spooler reeler basin. It is a known hazard, therefore operations are supported by risk controls such as barrier management and other safeguards.





Workstation showing dropped impact point



Gap in the mesh platform that the block fell through

What was the cause

Investigation revealed:

- The dropped object (wooden packing block), used for crossover packing on the spooler reel, had compressed into the parent coating of the pipe. It was thought that this was the mechanism that has transported the block on the pipe and into the lay system;
- The DROPS barriers on the workstation were inadequate to prevent a wooden block getting through the gap around the annulus of the pipe. The drops barrier is also susceptible to movement from pipe deflection without retracting with the pipe, and this could potentially widen the gap around the pipe. The dropped object passed through this gap and landed on the workstation floor. Had the barrier been suitable to restrict the size of the smallest packing block the incident would have been prevented.

Actions suggested

- Ensure all barriers are sufficient for the activities you are conducting;
- Ensure specific barriers (as in this case, around the pipe) are designed to minimise any gap to prevent the passing of potential dropped objects, whilst still allowing operations to proceed in a timely way;
- Ensure, so far as is possible, that there are no personnel in high risk/drops work areas;
- Be aware of risk normalisation and becoming accustomed to seeing unnecessarily dangerous situations in your workplace. Tolerating small defects or gaps in risk control can lead to major incidents;
- Consider new technologies available such as artificial intelligence using CCTV and alarms.

Members may wish to refer to:

- [Dropped wooden block in conductor support frame](#)
- IMCA DROPS videos:
 - [Technip DROPS](#) (IMCA SEL 039)
 - [Saipem DROPS – choice not chance](#) (IMCA HSSE 042)
 - [DROPS](#) (IMCA HSSE 043) *[shared by Subsea 7]*

3 BSEE: person fell through open hatch

What happened

The United States' Bureau of Safety and Environmental Enforcement (BSEE) has published [Safety Alert 489](#) relating to a person who was injured after a fall through an open hatch. The alert reiterates the need to remain vigilant of your surroundings.

Applicable
Life Saving
Rule(s)



Bypassing
Safety
Controls



Working at
Height

A worker on a blowout preventer platform fell through an open hatch cover that had been removed due to damage. The worker sustained injuries to his leg and knee.



Area from which worker fell



Hatch cover removed

What went wrong

Multiple factors contributed to the incident, including a lack of situational awareness for potential hazards, inadequate fall protection measures, and the failure to 1) properly secure the hatch covering the hole, 2) take corrective action after the cover was removed, and 3) alert other personnel to the hazard.

The BSEE notes that the offshore environment can present challenging and potentially dangerous working conditions that require constant situational awareness. Everyone should be reminded of the importance of situational awareness and continuously checking your surroundings for potential hazards. Situational awareness applies to various work situations, including loose grating, damaged handrails, hot work areas, loads being lifted above or around you, red zones, and production and well operations related to pressure. This vigilance can be the difference between life and death.

BSEE recommends that operators and their contractors, where appropriate, consider doing the following:

- Check your surroundings prior to starting work for any potential hazards;
- Identify and document hazards and then communicate these to all personnel;
- Ensure the proper fall protection is used when working at heights;
- Check temporary equipment and work platforms for hazards prior to use;
- Use a spotter to help identify and communicate any hazards when working at heights;
- Install barricades and “flag up” areas with questionable walking or working surfaces. Soft barricades (e.g., caution tape) may be temporarily used, but hard barricades should be installed;

- Ensure ladders that connect decks have safety gates that swing closed when not held open;
- Remind personnel to stay vigilant of their surroundings when working on or near elevated work platforms;
- Remind personnel to work at a pace that allows for continual reassessment of dynamically changing work environments;
- Follow approved procedures for the work being performed and outlined in the job safety analysis.

Members may wish to refer to:

- [LTI – crew member fell down open hatch](#)
- [Unprotected openings in floor grating – work stopped](#)

4 NTSB: Fire on vessel – escaped exhaust gases

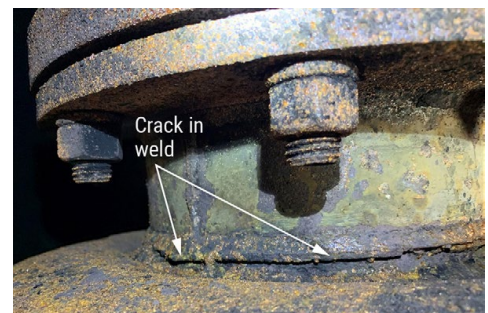
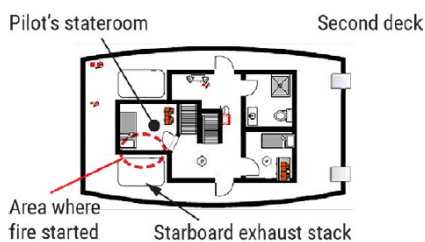
The National Transportation Safety Board of the United States (NTSB) published “[Safer Seas Digest 2023](#)”, which includes a number of incidents which may be of interest to IMCA members. This is one of them.

What happened

A fire broke out in a stateroom on board a small towing vessel on the Gulf Intracoastal Waterway. The fire was extinguished and the crew were evacuated safely. There were no injuries, and no pollution was reported, but the vessel was destroyed.

An off-watch pilot was awakened by a smoke alarm and the smell of smoke in his stateroom. About the same time, the captain, who was on watch in the wheelhouse, heard a smoke detector beep (but didn’t smell smoke) in the wheelhouse, and the other sleeping deckhand woke up to “a burnt smell.”

A fire had started behind panels in the pilot’s stateroom, which was located between the vessel’s two stacks, each containing engine exhaust mufflers and piping. Cracks in the welds on the upper section of the starboard muffler located inside the starboard stack—which may have been caused by a latent issue, such as a defect in the muffler during construction or the exhaust system design’s allowance for thermal expansion and contraction of exhaust piping above the muffler outlet—allowed the hot exhaust gases from the operating starboard engine to escape into the stack area and increase the temperature of the space and its bulkheads.



Layout of part of the vessel. The dashed oval identifies where fire started.

Destroyed interior of vessel

Crack in weld below the upper (outlet) flange of the starboard muffler

What was the (probable) cause

The NTSB’s investigation suggested that **undetected cracks** in the starboard muffler allowed exhaust gases from an operating engine to escape and ignite wooden structures affixed to the common bulkhead of an accommodation space. Contributing to the extent of the fire damage was the substantial use of combustible materials in the joinery, outfitting, and furnishings in the accommodation spaces.

Lessons learned

- Remember that engine and other machinery exhaust systems generate tremendous amounts of heat. These systems often run through tight spaces that are difficult to access and inspect and are often located near materials or equipment that obstruct entry and direct observation;
- Consider inspection of welding and other potential weak points in such areas.

Members may wish to refer to:

- [Near-miss: Fire hazard from leaking fuel supply line](#)
- [Near-miss: Corrosion caused crane boom failure during heavy lifting](#)

5 Snagging hazards

A member reports two unrelated incidents in which a causal factor was something getting caught or snagged in an unplanned way.

Incident 1: Corner of a container got snagged

On a vessel engaged in deck cargo operations offshore, a number of lifts had been successfully discharged and backloaded, which led to limited space on deck. The crane operator had landed a 3m cargo container on deck, and while he was trying to re-position the lift for easy disconnection by the deck crew, the corner of the container became snagged on the side of a deck light guard resulting in the parting of one of the slings. The container with broken slings was safely stowed on deck. There were no injuries, no damage and no environmental impact.

What went wrong

- The crane operator did not notice the potential snagging point, so continued the operation;
- The deck crew did not recognize hazard and did not stop the activity;
- Owing to the colour it was painted, the deck light guard may have been difficult for the crane operator to see and identify as a potential snagging point.

Lessons

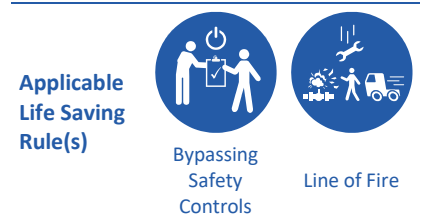
The importance of the crane operator being able to see the job, and to have good communications with the deck crew, cannot be overstated.

Members may wish to refer to:

- [Snagged lift during deck cargo operations](#)
- [Near-miss: Snagged lifting bridle](#)

Incident 2: Anchor chain parted after snagging on PPE

The starboard anchor chain of a tug boat snapped, causing loss of the anchor. CCTV footage reveals that during mooring operations, the crotch strap of a worker's lifejacket got caught on the lever of the anchor clutch, slightly engaging it. This put tension on the anchor chain during the operation of the winch, which subsequently caused it to part. There were no injuries and no other property damage.



Deck light guard



Damaged sling

What went wrong

- There was a hanging loop loose on the workers' lifejacket;
- There was no "securing pin" that would have prevented the clutch from engaging;
- A pre-use check inspection had not been carried out.

Actions

- Inspect all vessels' anchor winches to confirm the availability of securing pins;
- Ensure that the securing pin size is adequate and not undersized, to prevent the clutch from engaging unintentionally;
- Ensure pre-inspection takes place on all similar winches to ensure they are disengaged prior operation.

Members may wish to refer to:

- [Crewmember suspended above deck by lifting equipment](#)
- [CTV crew member snagged on tag line and lifted off feet](#)

