

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 De-Rusting Incident Resulting In Eye Injury

What happened

During descaling operations using a chipping hammer, a worker got dust or rust in his eye, although he was wearing goggles and a mask at the time. The incident occurred while descaling rust from inside the brake band of a winch, using a chipping hammer and a sanding disc.

What were the causes?

It is thought that owing to the awkward nature and inaccessible location of the brake band, the goggles loosened as the worker moved his head, allowing dust to enter.

Actions and recommendations

Our member's recommendations were:

- Full face mask with respirator filter suitable for dust/particles to be used for heavy de-rusting and other similar maintenance activities;
- Check inside of full-face mask for foreign bodies before use;
- Take great care when removing head and face protection:
 - Bend forward at the waist. This will ensure any debris falls onto the deck away from the body and not into the face;
 - Check hair and run hands through hair/over the head to remove any debris/particles prior to removing goggles/full face mask;
 - Carefully clean full-face masks before and after use;
 - Get a colleague to help you can remove any debris from your PPE and clothing before removal.

IMCA notes that eye injuries arising either from incomplete protection of the eyes, or from material getting into the eyes from a person's hair or from the mask itself, have arisen a number of times before. Members may wish to focus on this area.

The following may be worth reviewing:

- [Are YOU prepared to work safely? Protect your eyes](#) (short video)
- [MSF: wearing and storage of eye protection](#) [injured person had, at the time, he had been wearing a full-face visor, and his own prescription glasses]
- [Eye injury: Crewman got something in his eye when removing his PPE \["He removed his face shield without being careful"\]](#)
- [There's something in my eye!](#)



Winch unit being cleaned



Brake band after descaling



Full Face Mask With Respirator Filter

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- Crewman got cement dust in his eyes
- Loss of sight in right eye: Misdiagnosis of illness
- LTI: Eye injury following incident with microwaved food
- Lithium battery contents in eyes

2 MSF: Eye Injury Whilst Opening Paint Tin Lid

What happened

The Marine Safety Forum (MSF) has published [Safety Alert 21-15](#) relating to someone injuring their eye whilst attempting to open a tin of paint. The incident took place in a well-lit workshop, the injured person was not fatigued, nor inexperienced, was focussed on the job and wearing proper PPE including fitted safety glasses. As an attempt was made to pry open the lid, the screwdriver slipped from the point of contact and sprung in an upwards motion travelling underneath the person's safety glasses to penetrate the right eye.

The MSF's correspondent noted that *"the client's notification process was not followed, and offshore installation was not informed of the incident which led to some confusion and could have led to a delay in evacuation"*.

Applicable
Life Saving
Rule(s)



Bypassing
Safety
Controls



Line of Fire



What went wrong?

- There was no defined tool or recommendation for opening this type of paint tin lid;
- The Risk Assessment in place did not capture the task of removing the paint tin lid as a hazard;
- By design, the paint tin lid was rounded and tight fitting, which was also deemed a contributing factor as the screwdriver required force to separate the paint tin lid from the tin itself. Given that the screwdriver used was of the long-handled type, it was also considered difficult to control.

Actions

- Purchase of a safer alternative in the form of a specific paint tin opening tool (see images) was agreed, with the use of screwdrivers prohibited for the task.

Members may wish to refer to:

- [Lost time injury \(LTI\): Stored pressure release – Crewman lost an eye](#)
- [Line of fire injury – Man struck in face by hammer](#)
- [Worker sustained severe facial injuries during vessel maintenance](#)

3 Hand pinched between cable and cable roller frame

What happened?

A person got their hand trapped between the cable and an upright steel frame post of the roller table, leading to a hand injury. After completion of testing of the cable, the cable was to be placed back on the roller table. Due to the limitation of the deck gantry crane, the cable end had to be lifted by approximately 10cm to clear the vertical cable roller post. When lowering the cable, the injured person's hand was pinched between the frame post and the cable, causing a laceration to his hand even through his protective glove.

Applicable
Life Saving
Rule(s)



Bypassing
Safety
Controls



Line of Fire

What went wrong?

- The Task Risk Assessment covering the set-up for the testing of cable did not include the movement of the cable end, and so the related hazards were not highlighted;
- **The operation was considered a routine task** (IMCA emphasis) during cable load out and there was no Toolbox Talk specific to this task. Hazards were covered in the daily shift tool box talk;
- The pinch points on the cable highway were insufficiently marked;
- The injured person was the Supervisor – or acting as such - and supported the work by actively putting his hand onto the cable;
- **“Stop the Job” authority** was not used to tighten the rigging arrangement and/or move the rigging to a better place so that the cable could have been lifted over the post with the gantry crane.

Actions

- Follow the “Life-saving Rules” and never place yourself in the line of fire;
- Have a “hazard hunt”: take a close look at injury risk from contact with pinch points, entrapment or other line of fire hazards;
- Ensure everyone fully understands what is going to happen - conduct a worksite risk assessment review;
- Where appropriate perform a last-minute risk assessment.

Members may wish to refer to:

- [Crushed finger injury during wire transfer operations](#)
- [MSF: Hand Injury Sustained During Routine Checks](#)
- [MSF: Cut Hand Whilst Cleaning / Hand Safety](#)



Cable lifted with the deck gantry crane to place the cable back on the roller table



Pinch points on the frame post

4 Failure of first stage regulator low pressure (LP) blanking cap

What happened

During a dive, a leak was noted coming from the first stage of diver #2's regulator on the bail out bottle. Further inspection identified that the low-pressure port blanking cap was found to have failed. The dive was terminated, the divers recovered safely, and the regulator was removed from service.

During the investigation of the regulator there were no signs of damage to the body or any of the associated hoses, fittings or the gauge. The regulator was within its recommended annual service period.

The regulator manufacturer was contacted regarding the shelf life of the blanking screws and recommended O-ring replacements.

Actions

The following actions and recommendations are deemed necessary to manage the risk associated with 1st stage regulator blanking caps.

- Immediate actions:
 - Manufacturers recommendations
 - O-rings to be replaced at each service or every two years
 - Confirm torque settings of 2N to be applied to all blanking caps
 - Diving Contractors actions
 - Replace all blanking caps and O-rings on existing in service 1st stage regulators;
 - Update work orders to confirm torque settings of 2N to be applied to all blanking caps;
- Further actions:
 - Release as IMCA safety flash;
 - Identify and assess condition of all 1st stage regulators that have been in service in excess of 10 years for possible replacement.



Regulator with 1st stage with low pressure port identified



The two pieces of the failed blanking plug

Members may wish to refer to:

- IMCA D 018 [Code of practice for the initial and periodic examination, testing and certification of diving plant and equipment](#)
- [Fire main dust cap blown away by pressure from the line](#)
- [Failure of in-service saturation bailout bottle](#)

5 Failure of COBRA contents pressure gauge

What happened

Whilst at the COBRA charging station in the bell hangar during project mobilisation, a diver was venting a COBRA unit, prior to charging. The diver opened the valve slowly, and when the gauge reached 100 bar a 'popping' sound

was heard and the gauge fell to the floor. The diver immediately closed the valve and reported to the Dive tech Supervisor.

What were the causes?

- Immediate Cause - failure of thread
- Underlying Cause - impact load placed on thread connection during use
 - Dive technical examination by subject matter experts concluded that the thread failed due to dynamic damage, likely caused by being bumped, knocked or stood on during use.

Actions

- All COBRA and bail out gauges inspected and replaced as necessary;
- Planned Maintenance System updated to include monthly inspection of contents gauge, inclusive of gauge being removed from the HP hose to check integrity of fittings;
- Third-party inspection of failed gauge;
- Improved traceability through all contents gauges being serialized units.

Overall, an opportunity taken to make improvements to maintenance and equipment traceability in order to further improve resilience of equipment.

Members may wish to refer to:

- [Failure of EGS valve stem on dive helmet](#)
- [High potential near miss: failure of valve on gas bottle](#)
- [Incorrect pressure gauge on high pressure supply line](#)



COBRA unit



Area where gauge failed