

IMCA Safety Flash 28/20

September 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 Unsafe lifting operations

A member reports two incidences of unsafe lifting, which are worthy of note.

Incident 1 Unsafe Lifting Operations By sub-contractor

On a platform supply vessel (PSV) involved in demobilization operations alongside, the crane operator attempted to lift a winch frame located on at the main deck while there was scaffolding structure still over the winch frame. In addition, crew were still dismantling the scaffolding and so were **in the line of fire**. Upon observing this unsafe condition the job was immediately stopped by the vessel team.

What were the causes? What went wrong?

- ◆ Line of fire – there was scaffolding over the lifting area and the presence of personnel in the line of fire was not considered by the contractor;
- ◆ Incorrect lifting method - scaffolding pipes were placed under the winch platform with the purpose to roll it over with partial lifting, creating a risk of the winch sliding back off its platform as it was not welded on it;
- ◆ People were in a rush – the contractor’s lifting crew were in a hurry to complete the job on that day, as windy weather was forecast for the next day.

Actions taken and lessons learned:

- ◆ SIMOPS! Take into account what else is happening around you. Avoid any conflicting activities during any lifting operations;
- ◆ All lifting operations should be properly planned and risk assessed.

Applicable Life Saving Rule:



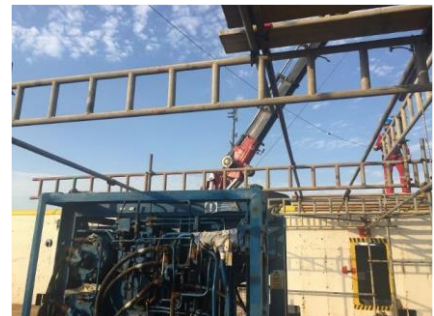
Bypassing Safety Controls



Line of Fire



Safe Mechanical Lifting



Equipment located on deck



Scaffolding pipes under winch frame

Incident 2 Master Stopped Unsafe Lifting Operation

A client's lifting crew attempted to load a metal structure to the vessel deck. The operation was stopped by the vessel Master. He questioned the certification of the lifting point and the lifting gear, as having no colour code signs. As no certificates could be provided, the vessel Master refused cargo and took the matter up with company management and the client's representatives.

Actions taken and lessons learned:

- ◆ Crew to conduct vessel inspections to ensure valid colour code applied to all lifting equipment and accessories, as per Safety management system;
- ◆ Reiterate the importance of checking lifting equipment condition **before and after** the task.

Members may wish to refer to

- ◆ "Are you prepared to work safely?" videos: [Lifting equipment](#) [Lifting operations](#)
- ◆ IMCA SEL 019 [Guidelines for lifting operations](#)
- ◆ [Lifting bridle snagged](#) – failure to "stop the job"
- ◆ [Near miss: unexpected lowering of a suspended load](#)



Metal structure proposed for lifting



Wire slings with no certificates/colour code

2 Deliberate failure to follow instructions: unsafe/quarantined tools brought back into use

What happened?

During a routine vessel inspection, crew were observed using a grinder with a selector switch as opposed to a paddle switch, which was contrary to procedures and communication from previous incidents and safety bulletins.

**Applicable
Life Saving
Rule:**



Bypassing
Safety
Controls



Work
Authorisation



Selector switch grinder (not permitted)



Paddle switch grinder (permitted)

What were the causes? What went wrong?

- ◆ Upon investigation, it was discovered that the vessel had the approved (paddle switch) grinders on board, but they were seen as being too bulky for the job; the crew removed the old grinder (smaller size) from the quarantine box and put it back into use.
- ◆ On inspection of the quarantine box, it was noticed that there was no manner of securing the box in order to prevent someone from accessing quarantined equipment.

- ◆ Inadequate supervision, to ensure equipment designated inappropriate does not re-enter service - crew members deliberately used equipment that had been taken out of service.

Actions

- ◆ Devices in “quarantine” should be rendered temporarily unusable or put strictly under lock and key;
- ◆ A hazard hunt was carried out to ensure that selector switch grinders were no longer in use.

Members may wish to refer to the following incidents. They are at first appearance dissimilar to the above – but they are all as a result of **deliberate failure to follow instructions or procedures**. In one case a written warning followed.

- ◆ [Personal Injury Following PPE violation and slip and fall on deck](#) [vessel Master went to the main deck without safety footwear or a safety helmet]
- ◆ [Short Circuit On 440v Ac Bus Bars – Arc Flash](#) [Crew deliberately ignored safety protocols to expedite what was considered an easy and straightforward task]
- ◆ [Lost Time Injury \(LTI\): Fall From Height](#) [senior ROV pilot/tech fell while climbing off an ROV without using a ladder; the JSA identified that a ladder should be used]

3 MAIB: Loss of cargo containers overboard from container ship *Ever Smart*

What happened?

The United Kingdom Marine Accident Investigation Branch (MAIB) has published [Accident Investigation Report 14/2020](#) relating to an incident in which 42 freight containers were lost overboard during a storm. In October 2017, UK registered container ship *Ever Smart* suffered a container stow collapse while on passage between Taipei, Taiwan and Los Angeles, USA. The master had changed the ship’s passage plan to avoid severe weather caused by a developing depression east of Japan. The ship continued in heavy seas; rolling and pitching heavily with frequent bow flare slamming. Once the weather had abated, the crew discovered that the container stacks on the aft most bay had collapsed and toppled to port. Of the 151 containers in the stow, 42 were lost overboard and 34 were damaged. Superficial damage was caused to the ship.



What were the causes? What went wrong?

Safety issues raised were:

- ◆ The loss of the containers most likely occurred during a period of heavy pitching and hull vibration in the early morning;
- ◆ A combination of factors resulted in a loss of integrity for the whole deck cargo bay; in particular, the containers were **not stowed or secured in accordance with the cargo securing manual**; [IMCA emphasis]
- ◆ The container lashings might not have been secured correctly

Actions taken and lessons learnt:

The MAIB recommendations to the owners were to improve standards of:

- ◆ Stowage plans produced ashore;

- ◆ Knowledge of the dangers of bow flare slamming;
- ◆ Lashing gear maintenance management.

Members may wish to refer to

- ◆ [Near Miss: Cargo Shifted On Deck In Heavy Weather](#)
- ◆ [Galley Equipment broke free of fastenings during severe weather](#)
- ◆ [Serious Incidents Involving the Weather](#)

4 US Coast Guard: Damaged Control Cables can contribute to the unintended opening of a hook

What happened?

The United States Coast Guard (USCG) has released Safety Alert 03-20 relating to the importance of checking the integrity of lifeboat control cabling. The Safety Alert addresses the importance of checking for and replacing damaged control cables that operate between the release handle and hook in a lifeboat hook release system.

What were the causes? What went wrong?

The Coast Guard investigated a casualty involving the unintended on-load release of a lifeboat hook from a davit fall wire. Prior to the incident, damage was noted to a control cable between the release handle and one of the hooks. However, the damaged cable remained in service. The damage may have subsequently worsened over time and contributed to the unintentional release.



Image 1: The release handle is in the locked and closed position. However, the cable is damaged.



Image 2: Forces cause the outer layers of the cable to separate. The release handle stays closed.



Image 3: At the hook end, the cable end rod moves. This causes the locking shaft to rotate.



Image 4: If the locking shaft turns enough, the hook will release, even as the release handle stays locked.

Members can see the full [Safety Alert here](#).

The U.S Coast Guard strongly recommends that “lifeboat owners, manufacturers, operators and service providers:

- ◆ *Conduct thorough inspections of control cables between the release handle station and release hooks, as well as any other similar cables communicating between the release station and the hydrostatic interlock, if installed, looking for current damage and for potential hazards or other conditions that might compromise the cables in the future;*
- ◆ *Replace cables that show signs of wear or damage to any layers;*
- ◆ *Implement an inspection regime that allows for cable damage to be identified and, as necessary, for cables to be replaced in a timely manner;*
- ◆ *Consult the lifeboat and release mechanism’s operations manual prior to conducting launch and recovery drills. It is important to remember that safety pins can be used during drills to prevent the hook-locking shaft from rotating, when they are approved as part of the release mechanism. Although safety pins may provide an extra level of safety during drills and training, operators should ensure that lifeboats are stowed in the "ready to*

launch" condition without safety pins in place. Ensure that lifeboat crews understand that safety pins will prevent a lifeboat from releasing from the fall wires during a real emergency if they are not removed after routine training evolutions or maintenance.

Marine inspectors, investigators, surveyors and servicing technicians are encouraged to maintain an acute awareness to these issues and initiate corrective actions as needed."

5 US Coast Guard: Addressing hazardous area electrical issues

The United States Coast Guard (USCG) has published [Safety Alert 05/20](#) entitled *Electrical Issues Spark Major Concern – Addressing Hazardous Area Electrical Installations Knowledge Gaps*.

The Safety Alert emphasizes the importance of properly installed and maintained listed or certified safe electrical equipment in hazardous areas in order to reduce the risk of fire or explosion onboard vessels. The USCG has seen a number of instances where there was a lack of knowledge in the marine industry with regard to the installation, training, maintenance and inspection of these certified systems.



Properly Installed Certified Safe Junction Box



Improperly Modified & Maintained Certified Safe Junction Box



Improper Cable Gland Installation/Modification



Standing Water in a Certified Safe Flameproof Light Enclosure Indicating Failed Ingress Protection

- ◆ Port State Control Officers (PSCOs) have found certified safe equipment improperly installed or identified missing components, which compromises the certification of the system and nullifies this critical protection in a flammable environment;
- ◆ In other cases, PSCOs found degraded components and evidence of equipment not being maintained or inspected;
- ◆ Additionally, USCG personnel have discovered instances where individuals responsible for the installation, maintenance, and oversight of this equipment onboard foreign and domestic vessels were unfamiliar with the appropriate standards to follow.

The USCG notes that *"the attribution of fires caused by electrical faults cannot be overstated."* and the safety alert goes on to say that *"Fire and explosion protection standards for electrical equipment in the oil and gas industry worldwide is a substantial part of the industry's safety barrier."*

Actions taken and lessons learned:

In the alert, the US Coast Guard strongly recommends that owners, operators, shipboard personnel and service providers:

- ◆ Familiarize themselves with the appropriate IEC [International Electrotechnical Commission] standards as related to the proper training, inspection, maintenance, and documentation of electrical equipment installed in hazardous areas, to ensure that no potential ignition source is present in hazardous areas aboard tank vessels, gas carriers and vessels using gases or other low flashpoint fuels;
- ◆ Ensure proper training for operators and persons with executive functions conducted to a standard not inferior to the IEC at all appropriate levels;

- ◆ Implement an appropriate periodic inspection and maintenance program by competent personnel;
- ◆ Ensure that any repairs are made by a competent technician or repair facility. When in doubt, a representative of the equipment manufacturer should be consulted. Any modifications to existing systems must be discussed with and approved by the appropriate regulatory authority.

Whilst this safety alert was developed for USCG by the Liquefied Gas Carrier National Center of Expertise in Port Arthur, TX, the underlying principles are applicable to IMCA members' operations.

Members may wish to refer to

- ◆ [Explosion and fire on-board the chemical tanker *Stolt Groenland*](#)
- ◆ [Dangers Of Battery Charging](#)