

IMCA Safety Flash 23/18

September 2018

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 Electric Arc Incident

What happened?

During a vessel mobilisation a control cabin for an electric ROV was being installed and commissioned. The cabin's internal main electrical power cable arced, tripping the vessel's power circuit breaker. The arcing, witnessed by an ROV technician, came from a coil of electrical cabling which had been left hanging from trunking in close proximity to the cabin's internal transformer. This cable was the main electrical power feed from the external power source socket to the internal transformer and had been supplied disconnected and with exposed conductors. The cable's conductors had arced when the cabins electrical system was energised, producing a bright flash and audible bang.

Although there was no actual injury or equipment damage, there was serious potential for both.



What went wrong? What were the causes?

- ♦ There was no external power socket available at the workshop base for powering the control cabin during testing and preparation. The work team developed a workaround disconnecting the control cabin's main electrical cable and hardwiring the power supply from the base directly into the control cabin's transformer;
- ♦ There was no management of change (MoC) process conducted as this operation was seen as a temporary change to the equipment. The change to the transformers electrical input was not formally documented or communicated to the personnel that would be working on the system;
- ♦ A combination of inadequate supervision, instruction and experience resulted in the failure to recognise that the main power cable had not been correctly reinstated prior to shipping;
- ♦ The pre-mobilisation checklist was also found to be insufficient in detail and did not include a check for testing or inspection of the main power cable;
- ♦ Electrical testing of the control van was not considered necessary and was not included in the mobilisation procedure;

- ◆ Despite several technicians working in close proximity to the exposed hanging cable, it was not identified as a hazard prior to connection to the ship's power.

What lessons were learned?

- ◆ Ensure power supply requirements are adequately identified before the job starts;
- ◆ Worksites should ensure they have an appropriate selection of electrical sockets on site for correct equipment connections;
- ◆ Ensure an MoC process is applied to control all temporary equipment modifications;
- ◆ Reiterate to work team leaders the importance of effective job briefings, which confirm job expectations and responsibilities in sufficient detail of the work to be undertaken;
- ◆ Review pre-mobilisation checklists to ensure they include the requirement for adequate checks for loose or hanging cables, exposed conductors and unsafe electrical conditions before the appropriate testing of the main electrical system is carried out;
- ◆ Mobilisation procedures should include checks prior to electrical hook-up for the appropriate testing of electrical cables and inspection for unsafe conditions;
- ◆ Roles and responsibilities should be clearly identified and documented on any worksite where electrical commissioning, testing or installation is being conducted.

Members may wish to refer to the following:

- ◆ [Electrical safety](#) (2003)
- ◆ [Electrical flash burns](#) (2000)
- ◆ [Electrician fatally electrocuted](#) (2015)

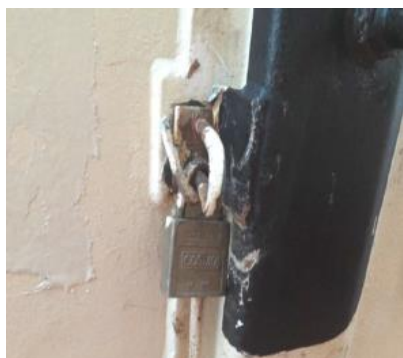
2 Robbery at Anchor – Vessel Security

What happened?

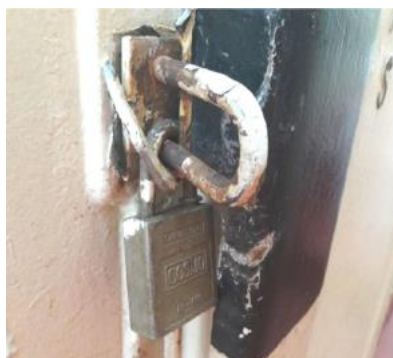
A members' vessel was robbed whilst at anchor. The incident occurred in Indonesian waters, in the hours of darkness, some three hours after anchoring. The duty officer, whilst on his rounds on the port side bridge wing, sighted a person on the poop deck. On being shouted at, the person tried to hide behind a ventilator.

The duty officer raised the alarm, alerting the Master and crew, and sent the duty AB down to check. While on the way down to the poop deck, the duty AB saw two more persons, armed with knives, who made threatening gestures to him. He immediately retreated back to the bridge.

On noticing that the crew were alerted and active, the intruders (5 in number) lowered some bags into boat, jumped overboard and escaped. A thorough search of the vessel was carried out for further unauthorised persons and for items lost. It was discovered that auxiliary engine spares to the value of around 12,000 USD, were missing. No crew were injured.



Padlock eye cut open



Engine room store

What were the causes?

Onboard investigation established that the intruders had boarded via the poop deck from a small boat, cut open the padlock securing the engine room entrance watertight door, and thus gained access to the engine room.

The incident was reported to concerned authorities. The Master and crew were aware of the risk of piracy in the waters through which the vessel was travelling and had implemented some counter-piracy measures. However, an effective deterrent – a deck piracy watch – had not been maintained.

What lessons were learned?

Our member recommended:

- ◆ Pre-arrival security briefing should include anticipated threats and planning;
- ◆ Vessel management should remain updated with world-wide maritime security concerns;
- ◆ A deck piracy watch in locations known for piracy.

This is the first such security-based report passed to IMCA by members; there are no similar IMCA incidents to which members' attention can be drawn.

Members are encouraged to submit incidents of this sort to IMCA in order to continue to raise awareness of vessel security.

3 Grinding Using a Cutting Disc

What happened?

Seamen were grinding sea-fastening spots in the hold, and one of them made a complaint to the Chief Officer about the quality of the grinding discs, they could only grind one spot away before the disc disintegrated and pieces were flying everywhere. The Chief Officer ordered them not to use these discs anymore pending investigation.



Klingspor A24Extra Flat Cutting Disc



Klingspor A24Extra Grinding Discs

What went wrong?

- ◆ Investigation revealed that the marking and appearance of the disc led to misunderstanding as to proper use:
 - the discs looked like a normal grinding disc, but also bore the text 'cutting', leading to the conclusion that they were cutting discs
 - none of the officers or crew on board had ever seen a cutting disc this thick before, so that is probably why the mistake was made
 - the discs were clearly marked 'Not to be used for grinding';
- ◆ Further investigation showed from this particular brand (Kronenflex) there is type A24Extra as both a grinding disc and as a cutting disc.

What were the causes?

- ◆ There was no check of the disks on delivery, or before use;
 - inadequate attention and awareness of the crew, failing to spot the wrong kind of disc before use.
 - supplier asked to deliver grinding discs and instead delivered cutting discs – but no-one noticed.

What actions were taken? What lessons were learned?

- ◆ Ensure crew are thoroughly aware of what happened; a safety moment was planned to show this disc and to demonstrate that it is not a grinding disc, although it looks like one;
- ◆ Ensure equipment and tools are carefully selected and inspected before use;
- ◆ When ordering these items, the purchase department should ensure the grinding wheels are of good quality and marked with an expiry date.

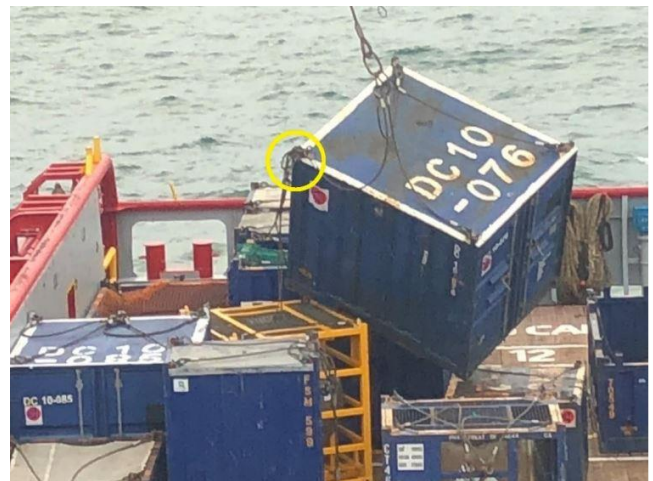
Members may wish to look at the following:

- ◆ [Poor Storage leading to failure and disintegration of cutting discs](#)
- ◆ [Grinding Disc With Defects](#)
- ◆ [Fatality: Grinder Incident](#)

4 Snagged Lift During Deck Cargo Operations

The Marine Safety Forum (MSF) have published [Safety Alert 18-19](#), in which a hoisted 10ft container became snagged on the bridle of a backloaded tote tank. A 'stop stop stop' order was given and the crane operator immediately halted operation; the containers remained suspended 3m off the deck.

The crane operator attempted to free both containers, but the space on deck was too restricted, and he was forced to land the containers on top of a nearby tubular stack.



What were the causes?

An investigation revealed that:

- ◆ There was limited space to manoeuvre the containers due to lack of deck space;
- ◆ Whilst on location, the number of lifts declared for offload and backload changed significantly;
- ◆ The snagged bridle could not be seen from deck level or from above by the bridge team or the crane operator;
- ◆ The corners of the 10ft container were fitted with guiding pins, which prevented the snagged bridle from slipping free;
- ◆ The snagged bridle was not 'tucked away' or secured when the tank was backloaded.

What actions were taken?

- ◆ The deck crew removed the bridle once it was safe to do so;
- ◆ The containers were safely discharged, and the deck items were securely re-stowed;
- ◆ The charterer was informed in accordance with company procedures and this helped contribute to an effective and conclusive investigation taking place.

What recommendations were given?

- ◆ A toolbox talk (TBT) took place prior to the start of the operation – this TBT included the subject of checking for potential snag hazards. The vessel owner highlighted the need for all vessels to continue this practice and to continue searching for potential snag hazards both prior to and during operations;
- ◆ The deck crew were safe and clear of any risk during the operation. Crew members should remain in a safe place whilst lifting operations are taking place;
- ◆ The bridle of the tote tank could have been tucked away after disconnecting the hook – these actions would not have prevented the incident from taking place, but may help prevent future similar incidents;
- ◆ The bridge team should take time to research reporting requirements when going on hire and before a potential incident could occur.

The full MSF safety alert can be found on their [website](#).

Members may wish to refer to the following incidents:

- ◆ [Near-miss: snagged lifting bridle](#)
- ◆ [Lifting bridle snagged – failure to “stop the job”](#)
- ◆ [Snagging damage during lifting operations](#)
- ◆ [Snagged cargo carrying unit during offshore discharge](#)