
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 Dropped object during crane operations

What happened

A piece of timber fell from a crane jib and landed on deck. The main crane on the vessel was being prepared for lifting operations by four deck crew and the crane operator. When the crane hooks were disconnected, the deck crew moved clear to allow the crane operator to start luffing the jib from the cradle. As the jib was slewing around, the crane operator observed an object fall from a height of approximately 10 metres to the main deck. No-one was nearby – the nearest crew were 15m away from where it landed. The dropped object was identified as a piece of timber, weighing 7.6kg. This had been used in a temporary repair of the dunnage on the boom rest.



Main crane and boom rest



Section of timber landed on deck

What went wrong?

- Initial design did not sufficiently address the lateral movements of the jib in the boom rest;
- Responsibility for the crane and associated equipment was not clearly understood;
- The temporary repair:
 - Several onboard inspections and third-party inspections were conducted which did not identify issues with the support dunnage and subsequent temporary repairs;
 - The damaged wooden packer was formally reported nearly a year earlier. This report had been closed out prematurely when a temporary repair was made;
 - The temporary repair was put in place using screws rather than bolts to attach a board over the damaged wooden packer. The screws corroded, causing the board to become loose and fall to the deck;
 - A work order had not been created for remedial works on the damaged support timbers;
- There was no checklist developed to include inspection of the boom rest.

Actions

- Ensure roles and responsibilities are clearly defined, communicated and understood;

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- Review all lifting appliances, supports and cradles. Ensure that the equipment is maintained in its as built condition;
- Confirm that the boom rest is part of the vessel planned maintenance system;
- Ensure crane inspection checklists include inspection of the boom rest;
- Confirm areas around crane boom rests are included in hazard hunts for potential dropped objects.

Members may wish to refer to:

- HSSE 019 *Guidelines for lifting operations*
- Short videos:
 - [Lifting operations](#)
 - [Lifting equipment](#)

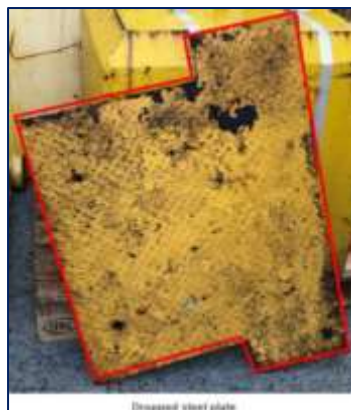
2 Dropped Object – Steel deck plate falls from pipelay tower

What happened

A large steel deck plate fell 9m from a pipelay tower to deck. The incident occurred on a vessel in dry dock, during which testing and inspection of the pipelay tower was taking place. A rope access technician stood on one of the steel deck plates located around the mid centralisers. The bolts securing the deck plate failed resulting in the deck plate upending and then falling to the deck below. The area below had been barriered off before work started. No-one was hurt. On inspection it was noticed that the deck plate fixings were heavily corroded, with three of the four securing bolts providing no support.

What went wrong?

- This deck plate and others found were not part of the original pipelay tower structure, nor on any vessel drawings;
- No change management or design engineering was carried out;
- Incorrect size and material grade of bolts were used;
- The deck plate was only supported on the rear section, and no support bracket had been installed underneath the plate where the technician stood;



What went right

- The task was being controlled under a Permit to Work complete with a task specific risk assessment;
- There was effective barrier management in place preventing persons from entering the Drop Zone;
- Good working at height practices were being used by the work party.

Actions

- Ensure all gratings, steel deck plates and their fixings installed at height are inspected as part of a routine inspection program;
- Ensure equipment modifications are controlled through the change management process.



Members may wish to refer to:

- [Pro-active intervention prevented high potential dropped objects](#)
- [Dropped wooden block in conductor support frame](#) *[changes were made that were not captured in procedures]*
- [Lost time injury \(LTI\): loose grating fell from crane, a man fell through and was injured](#)

3 Incorrect measurement and markings on divers umbilical

What happened

During a diving operation it was seen that the colour distance markings on the divers umbilical were not the same as stated in the diving contractor's Diving Operations Manual. The dive was stopped and the umbilical length/markings were checked. When the umbilical markings were measured it was found that not only were the distance markings using the wrong colour code system, but also, the datum point for measurement was also incorrect. The contractor's Diving Operations Manual stated the umbilical datum (zero) was from the divers end of the gas hose. The umbilical had been measured from the D ring.

No-one was harmed, but there was lost time while the umbilicals were checked, measured and and correctly marked.

What went wrong?

- It was not clear who was who was responsible for the checking the umbilical distance markings for accuracy – as a result this was not checked.

What were the causes of the incident?

Our member notes that the dive team were complacent:

- The divers and supervisor knew that the marking colour system was incorrect but did nothing to correct it;
- The dive team should have known that the distance markings were in the incorrect position as recently they had changed the markings on other umbilicals.

Actions

- All diving umbilicals were checked for:
 - Correct colour code marking (as stated in contractor's diving manual);
 - Measurement from the gas hose end not the D ring (as stated in contractor's diving manual).
- The supervisor and divers underwent refresher training and behavioural training.
- During DESIGN audit all umbilicals should be laid out alongside each other with a 50m tape so the auditor/supervisor can check for accuracy.

Lessons learned

- When a diving job is mobilised or new umbilicals are received on site, any existing marking method on the umbilicals should be checked against the company standard. A notice at the tending point, if practical, should state what the company manual marking system is, as well as any safety critical measurements to the nearest thruster or hazard;
- It was noted that DESIGN doesn't allow for accuracy of distance measurement. *[IMCA D 023 only states that umbilicals should be marked 'At least every 10m using a recognised system'. The contractor's manuals should state what their recognised system is. Their induction process should convey this to those that need to know.]*

Members may wish to refer to:

- [Diver's worksite identification errors](#)

4 Case study: Lone watchkeeping grounding at night

What happened

As part of its BSafe campaign, Britannia P&I Club describes a case where a vessel ran aground at night. The primary factor contributing to the grounding of the ship was the officer of the watch's failure to effectively monitor the ship's progress for about two hours.

The incident involved the general cargo vessel *Priscilla* and it occurred in July 2018. The UK Marine Accident Investigation Branch report on it can be found [here](#).



The Britannia P&I Club has created a handy case study on the incident, including a summary, presentation commentary and lessons learned: [here](#).

What went wrong?

The ship ran aground because it drifted to the south of the planned track while on autopilot. The officer of the watch did not monitor the ship's progress for about two hours, while sitting in the bridge chair watching videos on his mobile phone.

Lessons learned

- **Pay attention to what is happening around you!!**
- Monitoring vessel progress along the planned passage is a vital component of safe navigation, and the officer of the watch should not become distracted from this responsibility;
- Reducing to a sole lookout should be properly risk assessed;
- Electronic navigation aids should always be set up to aid the officer of the watch by giving warning of danger ahead.

Members may wish to refer to:

- [UK MAIB report 12/2019: Grounding of general cargo vessel *Priscilla*](#)
- [Brittania P&I Club BSAFE Case Study 03 Lone Watchkeeping Grounding At Night](#)

5 Engineer suffered burn injuries in engine room incident

The Belgian Federal Bureau for the Investigation of Maritime Accidents (FEBIMA) has published its detailed and informative [Report 2020/003688](#) “*Report on the investigation into a serious injury on board*” the capesize bulk carrier *Mineral Temse* in May 2020.

What happened

An engineer suffered severe burns when parts of his hands, arms and legs were covered with hot sludge from the sludge discharge line of a switched-off fuel oil separator. The incident occurred when he opened the inspection plug of the sludge discharge line.

The engineer was wearing loose shorts and a t-shirt. The vessel was authorized to sail with an unmanned machinery space.

After first aid on board and telemedicine consultation, the vessel went to port and the engineer was transferred to hospital, where he was diagnosed with 12% total body surface area mixed partial thickness burns.

What were the causes/why did it happen

The report from FEBIMA concluded the following:

- *The heating and pressurizing of the sludge in the discharge line in case of a complete blockade was not detected as a risk and so the inspection plug was opened very soon after the separator was switched off;*
- *Safety rules were not strictly followed outside the daily working hours in the engine room. The victim was not accompanied when inspecting the sludge discharge line and he was not protecting his skin with the necessary PPE. The hot and sticky sludge came into direct contact with the skin of the victim, aggravating the consequences of this accident.*

Members may wish to refer to:

- [UK HSE: Workers injured by unplanned release of mud slurry](#)
- [Exhaust valve cage assembly blow-out](#)
- [Lost time injury \(LTI\): Crewman injured during opening of tanks](#)



Completely blocked sludge discharge line



Legs of the engineer covered with sludge