IMCA Safety Flash 08/18

April 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

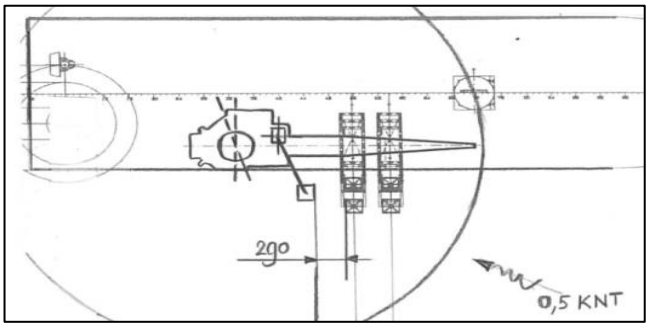
Any actions, lessons learnt, recommendations and suggestions in IMCA safety flashes are generated by the submitting organisation. IMCA safety flashes provide, in good faith, safety information for the benefit of members and do not necessarily constitute IMCA guidance, nor represent the official view of the Association or its members.

1 Near Miss: Diver's Umbilical Snagged by Work Basket During Recovery To Surface

What happened?

A diver's umbilical became snagged on a tool basket during recovery. An 'all stop' was called, the umbilical was freed and the divers were recovered safely. The incident occurred during the recovery of two divers working from a diving basket at 22m water depth.

The divers' umbilicals were tended from the surface through a guiding hole in the roof of the diving basket. The divers were recovered to the diving basket before recovery of the nearby tool basket, as the diving basket is considered a safe haven during lifting operations. The umbilicals were secured in the diving basket with a hold-back rope, which allowed the divers 4m of umbilical to provide length to exit the basket on deck. After the surface tenders pulled up the umbilical until they felt tension, the order was given by the supervisor to recover the tool basket to surface.



The tool basket was recovered adjacent to the diving basket using a small hydraulic crane. Just before arriving at the surface, the hold-back rope broke and the remaining 4m of umbilical started to be pulled through the guiding hole in the roof of the diving basket. When the diver noticed that he was being pulled towards the roof of the basket he immediately called an 'all stop'. At the same time, an 'all stop' was also called by the tender on deck when he noticed that the umbilical was getting too close to the tool basket. The crane operator immediately stopped the crane with the tool basket approximately 2m below the surface. The snagged umbilical was visible on the tool basket. The tool basket was then lowered and the tender pulled the umbilical free. The diver had approximately 0.5m of free umbilical remaining in the basket. After the umbilical was freed, he pulled a further 3.5m of umbilical through and secured it back into the diving basket.

What went wrong? What were the causes?

- There was insufficient horizontal separation between the tool basket being recovered and the diving basket;
  - the horizontal distance during lifting, between the tool basket and the diving basket, was not properly risk assessed. The distance between the crane wire and the diving basket was 2.9m on the surface during the lift which seemed sufficient at that time

- in this case, the slack of the umbilical was pushed in the direction of the tool basket by a 0.5kt current, despite the tender pulling up and tensioning the umbilical "as normal". The distance between the tool basket and the diving basket was known and visible at the surface but might have been different subsea
- the crane driver did not swing the crane to maximise the distance between the lift and diving basket, as there was no proper risk assessment and associated set of instructions to do so;

- There was too much slack in the diver's umbilical from basket to surface;
- The tool basket had protruding pins which were a snag hazard.

What lessons were learned?

Our member noted the following:

- Assure minimum distance between all lifts and umbilicals or use close observation (Diver or ROV);
- The divers were informed of the planned recovery of the tool basket, but were not informed the moment the lift actually started. Disciplined "echo" or closed-loop communications were not always applied. All operations that might affect the divers should be communicated to the divers and repeated back by the divers to the vessel to confirm the divers understanding;
- When securing an umbilical and during diver recovery, the diver is to monitor his umbilical movement interaction with the surface tender. Had he done so in this case, the diver might have noticed that his umbilical got caught by the tool basket before the hold-back rope snapped;
- The proper execution of the 'all stop' procedure prevented a worse outcome in this case. The 'all stop' was effective because the deck crew could see what was happening and because the very high frequency (VHF) channel was not occupied. Consideration should be given to dedicated communications systems;
- Smaller hydraulic cranes used to deploy tool baskets etc. may be operated on an ad hoc basis by a member of the dive team, and there may be no specific work instructions or competence schemes in place for these operations;
- Though the tender pulled on the umbilical until it was tight, he was not exactly aware of how much slack there was in the water as this depended on multiple variables; the diving umbilical is marked at 5m intervals, so the tender has an idea of the length of umbilical paid out, but for enhanced umbilical management during critical phases, the tender should be provided with additional information regarding acceptable slack in water and should be able to measure this.

What actions were taken?

- The addition of 'operation of the auxiliary crane' to the Vessel specific manual;
- Creation of a checklist/familiarization for an auxiliary crane operator;
- Thorough check of Diver Supervisor communications with regard to criticality and 'fail safe';
- Provision of detailed instruction, guidance and information on acceptable slack for the tender;
- Removed the pins creating a snagging hazard from the outside of all tool baskets in use.

Members may wish to refer to Guidance on operational communications (IMCA D 046)

Members may also wish to refer to the following incidents:

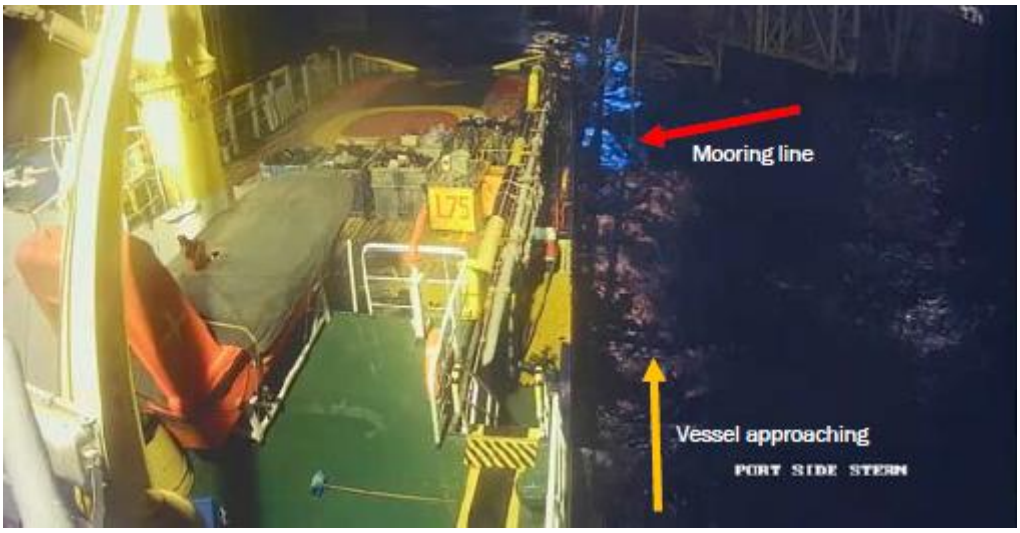
- High potential near miss: failure of both divers' breathing air supply and dive stage recovery winch
- Near miss: fouled diver umbilical
- Lifting bridle snagged – failure to "stop the job"

2 Rope on Propeller Causing Partial Loss of Propulsion

What happened?

A platform supply vessel (PSV) started mooring operations whilst stern to a platform, without anchoring, in order to conduct a snatch lift. The platform crane operator started to lower a mooring rope of 20cm diameter to the port side of the vessel's stern quarter bollard area. The deck crew then fixed the end of the mooring rope to the bollard.

At this time, part of mooring rope was lowered to the water. There was a miscommunication between the crane operator and the deck crew, and as a result the rope was fouled on the port side propeller resulting in a subsequent port side engine shut down and partial loss of vessel propulsion.



What went wrong? What were the causes?

- There was a lack of proper planning and risk assessment during the mooring operation;
- There was inadequate communication between the platform crane operator and the mooring crew on deck, which resulted in the mooring line being dropped in the water;
- The deck crew did not notify the bridge in a timely manner when the rope was lowered into the water, and thus the propeller was fouled by the rope.

What actions were taken? What lessons were learned?

- There needs to be adequate means of communication between crane operator, deck mooring team and bridge officer on watch (OOW);
- Proper attention should be paid to the job in hand during mooring operations to ensure a timely reaction to any unforeseen events;
- More detailed risk assessment required for this task where the vessel takes a mooring rope from a platform or rig;
- Stop work authority should be exercised when in doubt.

Members may wish to refer to the following incident:

- Mooring rope fouled the propeller and parted

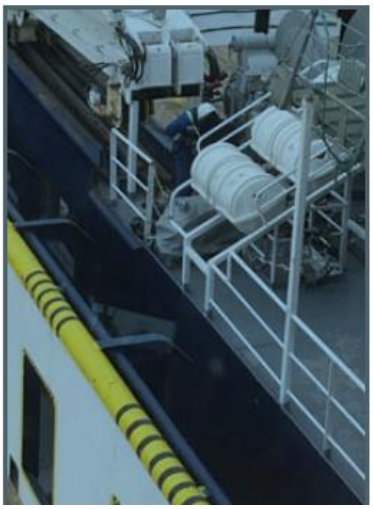
Members may also wish to refer to:

- Mooring Incidents (IMCA SEL 038) – video
- Mooring Safety (IMCA SPP 12) – poster
- Mooring practice safety guidance for offshore vessels when alongside in ports and harbours (IMCA SEL 029)

3 Unsafe Attempt of Personnel Transfer Between Vessels

What happened?

Three people from a sub-contractor were observed trying to move from vessel to vessel whilst alongside, by slipping through the bulwark guardrails. There was no proper gangway in place. The personnel were stopped and company requirements on safe access between vessels was explained to them. The vessel subsequently changed its location and moored to the quayside and a gangway was deployed for safe access. Though there were no injuries, the case was raised as a near miss given the high potential for serious injury.



What went wrong? What were the causes?

Crew members or visitors should only board and disembark the vessel via a correctly rigged gangway. Different vessel types and designs should be taken into account for a safe gangway installation. Crew or visitors should not jump from the vessel to the quay or to another vessel under any circumstances; lives have been lost through failure to follow safe access procedures.

What actions were taken? What lessons were learned?

Company safety management system (SMS) requirements for safe access were re-emphasised to all relevant contractors accessing the vessel. A revision would be conducted of company checklists for visitor/3rd party safety inductions to ensure that the communication of the need for safe access & egress requirements to any visitor when accessing the vessel.

Members may wish to refer to Guidance on the transfer of personnel to and from offshore vessels and structures (IMCA SEL 025).

4 Port Company Fined After 600kg FIBC Bag Falls on Employee

What happened?

The UK Health & Safety Executive (UK HSE) have prosecuted Associated British Ports (ABP) for safety breaches after a flexible intermediate bulk container weighing 600kg fell and struck an employee.

What went wrong? What were the causes?

A 600kg flexible intermediate bulk container (FIBC) bag of Ammonium Nitrate fell onto an employee as he was removing pallets from the front of a stack. He suffered multiple fractures, a dislocated ankle and knee and back injuries, and he was unable to work for thirteen weeks.

Image: Wikipedia commons

The HSE investigation found that the company had failed to follow their own risk assessments, by stacking FIBC bags directly on top of one another rather than in the recognised industry standard of stacking in a pyramid fashion. The company had also failed to review their stacking practice following earlier incidents of bag spills and stack collapses on the dockside.

This case highlights three things:

- The importance of following industry guidance;
- The importance of ensuring that companies and crews follow their own company risk assessments;
- Learning from previous incidents – ensuring that systems of work and procedures are properly and thoroughly reviewed after incidents.

The full press release can be found on the UK HSE website.

Members may wish to refer to the following incidents:

- Securing of loads
- Worker seriously injured when 1 tonne load fell on him
- Crewman injured when steel plates fell against him

5 Finger Burnt by Overheating Electrical Component

What happened?

The Marine Safety Forum (MSF) reports an incident in which a worker on a vessel was working on the operating panel for a 690 VAC anti-heeling pump, when he received a burn to his middle finger; he got burnt when he reset the breaker switch. This resulted in a first aid case and he was treated on board.

What went wrong? What were the causes?

It was noted that:

- No work or maintenance was being carried out on the inside of the cabinet, so there was no permit to work or isolation (the breaker was the method of isolation);
- The breaker was never 'live' – the burn was due to the heating of the breaker due to it being of an incorrect rating. This was confirmed afterwards through numerous simulations and calculations.

The MSF member noted the following causes:

- Rotary isolation switch within the electrical cabinet was broken and had been removed;
- There had been a failure to follow defect reporting procedure;
- Due to a missing isolation switch, direct contact had to be gained internally to reset breaker;

- There was a lack of hazard awareness and risk perception;
- There was a lack of consideration for safety devices.

What actions were taken? What lessons were learned?

- A new rotary isolation switch was fitted to the breaker switch;
- All similar cabinets on board were checked and rotary switches fitted as required;
- A full onshore investigation was initiated due to the perceived potential severity of the incident;
- Upon further investigation, it was found that a change in the cable length after the cabinet from the system design to actual build meant that the breaker was insufficient and had a tendency to heat up. This cable was also replaced.

Though in this case there was no actual electrical shock, members may wish to refer to the following incidents relating to electric shock:

- First aid injury: electric shock
- Electric shock incident

Please also see the short IMCA safety video Electrical hazards.