IMCA Safety Flash 06/18

March 2018

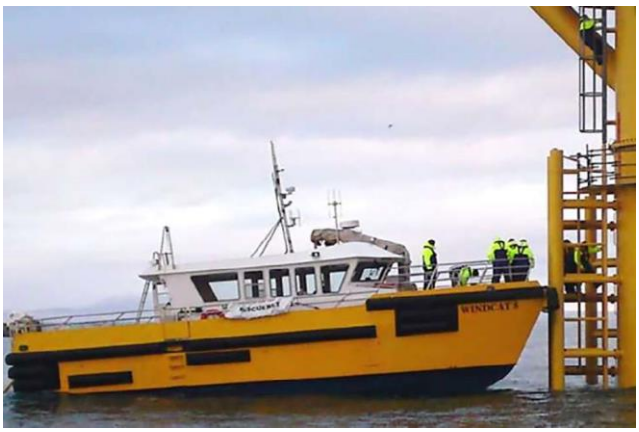
These flashes summarise key safety matters and incidents, allowing wider dissemination of lessons learnt from them. The information below has been provided in good faith by members and should be reviewed individually by recipients, who will determine its relevance to their own operations.

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 Catastrophic Engine Failure Resulting in A Fire on A Crew Transfer Vessel



What happened?

The UK Marine Accident Investigation Branch (MAIB) has published its report into an engine failure and subsequent fire on board the crew transfer vessel *Windcat 8*, which occurred offshore Lincolnshire, UK, in September 2017.

What went wrong? What were the causes?

There was a catastrophic engine failure and subsequent fire on the 15 metre windfarm crew transfer vessel (CTV). The engine damage was caused by a big end bearing failure.

There were no injuries to the two crew or the 12 embarked wind turbine technicians. The fixed firefighting system was operated, but it was ineffective because not all the engine space vents had been closed. The fire caused only minor damage and eventually extinguished when it ran out of fuel.

Recommendations

The MAIB recommended that training and guidance be provided to CTV crews on the action to be taken in the event of critical propulsion alarms, and to ensure they are familiar with the use of fixed fire-fighting systems.

The full report from MAIB can be found here.

Members may wish to refer to the following incident:

- Fire on offshore renewables industry crew transfer vehicle (CTV)

2 Finger Injury During Recovery of Daughter Craft

What happened?

The Marine Safety Forum (MSF) has published a Safety Alert relating to a line of fire finger injury sustained during small boat operations. The incident occurred while the vessel was recovering the Daughter Craft after a man overboard exercise. The boatman took hold of the master link, and as he hooked the link into the Daughter Craft hook, his left index finger became caught between the master link and the lifting wire thimble, resulting in injury to the finger.

What went wrong? What were the causes?

The MSF notes that recovery operation of a rescue craft is a high-risk task and full cooperation of all involved is crucial to complete the operation without any incidents. The investigation of the incident established that:

- The lifting wire's thimble diameter allowed the thimble to freely move all around the master Link and could move close to someone's fingers increasing the likelihood of them being trapped;
- The procedure and risk assessment used for the task were not adequate;
- Established previous practice being followed, may have contributed to the incident.

What actions were taken? What lessons were learned?

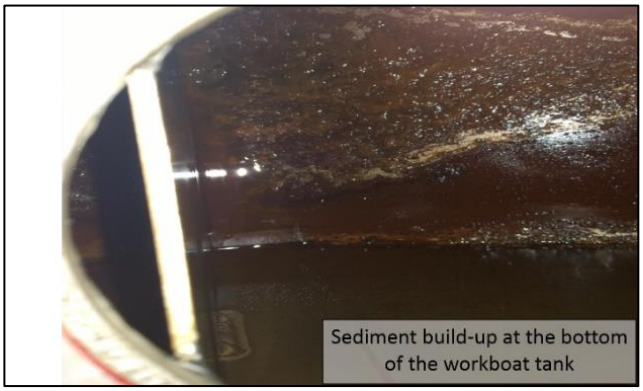
- Investigate provision of master links that could provide a better protection to the boatmen's hands and fingers during inserting of the master link into the rescue craft hook, by preventing the wire's thimble from free movement;
- Review and amend as appropriate, task risk assessments and specific procedures for operation of rescue craft.

Members may wish to refer to the following incident:

- Small boat deployment near miss incident

3 Workboat Failed During Transfer Operations Due to Fuel Contamination

What happened?


Sediment build-up at the bottom of the workboat tank

The Marine Safety Forum (MSF) has published a Safety Alert regarding an incident in which a workboat's engine cut out. The incident occurred during a crew transfer operation by workboat. The crew's engineer made several unsuccessful attempts to restart the engine. The Coxswain made contact with the vessel Master and advised him of the situation. The vessel proceeded to attend and the workboat was safely recovered.

What went wrong? What were the causes?

Vessel engineers discovered that the fuel in the tank was contaminated due to water condensation causing a build-up of bacteria. The source of contamination was water or moisture in the tank due to condensation in the tank head space; this resulted in a build-up of bacteria turning into sediment. The sediment caused the fuel oil fine filter to clog preventing the engine from starting.

Planned maintenance system (PMS) instructions with respect to inspection and maintenance were clear, but had not been followed. The vessel did not hold spare filters on board.

What actions were taken? What lessons were learned?

- Check fuel and tank quality through planned maintenance inspections, treat and/or clean as applicable;
- Ensure workboat fuel tank levels are maintained to prevent condensation/water building up;
- Ensure a stock of essential fuel filters are held on board.

Members may wish to refer to the following incident:

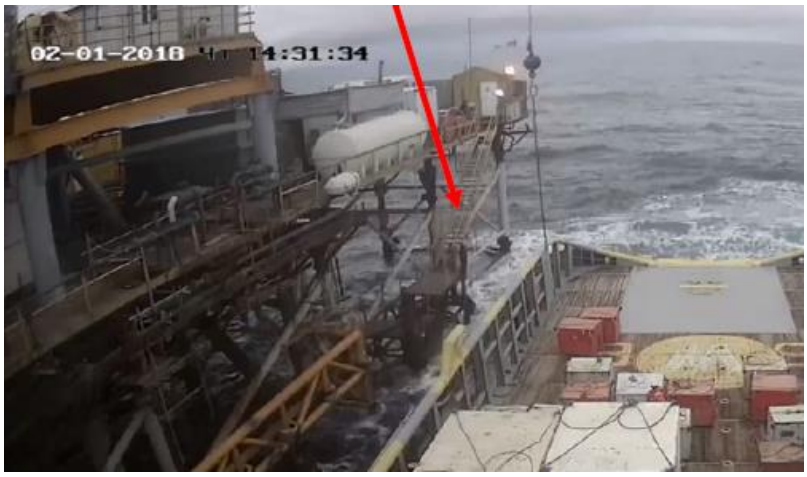
- Two cases of contaminated drinking water

4 Vessel/Platform Collision – Mooring Bollard Broken by Vessel

What happened?

A platform supply vessel (PSV) approached a platform to deliver the cargo via snatch lift. After starting cargo operations, it appeared that the crane did not have enough boom reach, so the vessel was taken closer to the platform (at around 1 m distance). There were 2m waves at the time.

The vessel's stern collided with the platform mooring bollard which was damaged. No one was injured. This damage was allegedly not noticed at the time by the crew, and was identified and reported by the client at a later stage.



What went wrong? What were the causes?

Our member notes that this incident happened recently and is under investigation. Detailed information and additional lessons learned, if any, will be communicated at a later date. Our members' initial findings were as follows:

- Given the unfavourable operational conditions, there was excessive exposure to risk, possibly driven by inadequate planning. The operation should have stopped when conditions were found unsafe;
- Concerns had been raised previously, relating to the absence of fenders and mooring buoys around the platform, and regarding the limited reach of the crane. These had not been addressed. Vessel management should keep their fleet management informed of operational hazards and enable corrective actions with clients and other 3rd parties, as needed.

What actions were taken? What lessons were learned?

Ensure that there is properly documented and agreed guidance available on methods of safely approaching platforms, on escape routes and on go/no-go zones, particularly when new locations are involved.

Members may wish to refer to the following incidents:

- Vessel activities near platforms – two incidents;
- Property Damage: Platform Supply Vessel collided with legs of jack-up rig.

5 Accidental Mixing of Different Fuel Oils

What happened?

A vessel was at anchorage waiting for the pilot. The engine room was manned and the main engine ready for manoeuvring. The duty engineer informed the bridge that two valves on the fuel transfer line were kept open overnight. These were the valve for Ultra Low Sulphur Fuel Oil tank no 6 (starboard) and valve for Heavy Fuel Oil tank no.6 (Centre starboard).

It was observed on the remote gauging system that the quantity of fuel in the Ultra Low Sulphur Fuel Oil tank no 6 (starboard) was considerably less than the previous day.

What went wrong? What were the causes?

All valves on the fuel transfer line were closed and soundings were taken for all tanks. It was found that 57 tonnes of Ultra Low Sulphur Fuel Oil from tank no.6 (S) had been accidently transferred by gravity to Heavy Fuel Oil tank no.6 (CS), due to the initial higher level in the first tank (tank no.6 (S)).

Samples from tank no.6 (CS) and ULSFO settling tank were taken and landed ashore for urgent sample analysis.

Results from the laboratory confirmed that fuel was contaminated due to mixing.

Our member noted the following

- There was financial and reputational loss:
  - cost for urgent sample analysing
  - company's reputation with the shipowner;
- The **immediate cause** was carelessness – failure to operate the fuel valve correctly;
- Causal factors identified were inadequate supervision or management – a lack of adequate oversight and monitoring;
- The **root cause** identified was inadequate compliance with existing procedures.

What actions were taken?

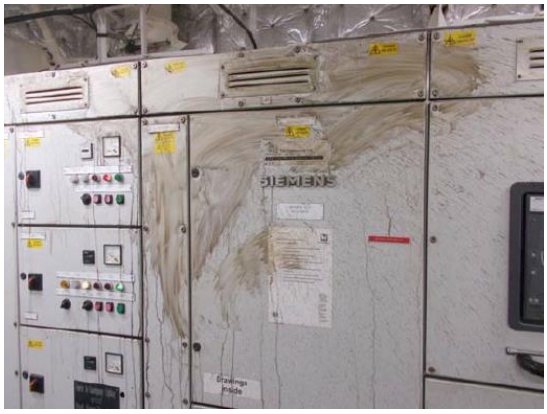
Persons involved were referred back to company procedures, and a notice with the fuel oil transfer procedures displayed near the operating panel.

Members may wish to refer to the following incidents:

- Isolation of Fuel Tanks;
- Cargo contamination causing LTIs during clean-up;
- Near Miss: Engine Room Flooding.

6 Unexpected Release of Water During Annual Maintenance of CO2 Fixed Firefighting System

What happened



An incident took place during annual maintenance of CO_2 fixed firefighting equipment on a vessel, in the emergency generator switchboard room. There was an unplanned and unexpected release of water.

As part of the annual maintenance of the CO_2 fixed firefighting system, air was blown at 7 bar through the lines. As part of this check, a person was located in the CO_2 room on the starboard side of the main deck, an engineer was in the emergency generator room located below the switchboard and the vessel electrician was in the switchboard room to witness the tripping of the emergency generator room supply fan.

What went wrong?

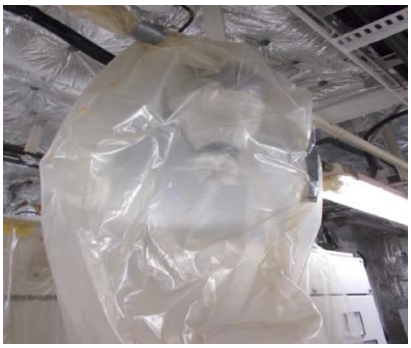
When the task started, a fine mist was noticed coming from one of the nozzle heads in the emergency generator switchboard room. Further to this, water was seen spraying out of the nozzles onto the 440V and 220V switchboards, transformers and surrounding areas. An all stop was immediately called over the radio.

What were the causes?

The source of the water has not been identified, however it is suspected to have been as a result of condensation forming in the pipework supplying the nozzles. These pipes are of considerable length.

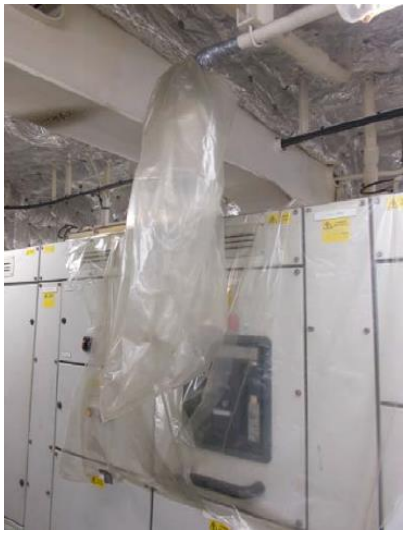
IMCA notes that compressed air systems should be blown through before connection, to ensure that there is no water in the air system which may be transferred into the system being blown through.

What actions were taken?



Following the incident, the vessel team placed bags with a small air vent onto the nozzle heads to collect any unexpected release of water during checks;

- Nozzle heads to be covered appropriately during these tests;
  - the planned maintenance system was updated to include instructions to cover nozzles within electrical switchboard spaces and any other sensitive areas during these tests;
  - other vessels and third-party contractors were advised to take similar precautions.



Members may wish to refer to the following incident:

- Fixed CO2 Fire Extinguishing Systems – US Coast Guard Alert.