IMCA Safety Flash 07/19

April 2019

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1 Unpublished Safety Incidents

IMCA has been notified of slightly more than 200 safety incidents in the 15 months since the start of 2018. Approximately two thirds of these come from IMCA members; the remainder come from other trade bodies and regulatory organisations, including the Marine Safety Forum (MSF), the UK HSE, the United States Coast Guard (USCG) and the US Bureau of Safety and Environmental Enforcement (BSEE). Most incidents, but not all, are published. In the last 15 months, IMCA elected not to publish 33 incidents. All but four of those unpublished incidents came from IMCA members.

In many cases where the incident details were not published as part of an IMCA safety flash, the received incident notification was deemed to not have adequate scope for learning meaningful lessons, or the necessary effort required to prepare the incident would not return sufficient value to members. 27 of the 33 incidents fall into these two categories. Members are reminded that the decision whether or not to publish an incident is necessarily subjective and editorial in nature.

The following criteria may lead to submitted incidents being passed over:

- The incident involves a serious personal injury which has not been properly captured in the original communique;
- The incident report has a tendency to either shift responsibility or to apportion blame;
- The incident report uses safety jargon but fails to identify fundamental and obvious corrective actions;
- The incident report is too long and complex for a relatively minor incident (an example would be a non-serious slip/trip where the incident report ran to 11 pages);
- The incident report is too brief for a serious incident (an example would be an incident involving LTIs, dealt with in less than two hundred words, with no discussion of what happened to the injured person);
- The incident report comes in a form that cannot be rendered into an IMCA safety flash in a timely way – for example, incident reports delivered as a scanned PDF image, or in very difficult to understand English;
- The incident report contains no photographs, diagrams or images to support and/or explain the text.

Safety flashes exist to raise safety standards and thus to reduce incidents and injuries. They do this by bringing to the attention of members' employees, issues of critical safety importance, and thus enabling lessons to be learned. It is important, therefore, to guard the impact and appeal of safety flashes. Just as would any media news publication, we do this by choosing with care what material we do and do not publish.

What matters is not that every incident is published, but that every incident published, and safety flashes as a whole, tell a coherent story. It is this **safety story** that delivers lessons learned and the improvements in safety. It is the safety story that changes attitudes, hearts and minds.

Incidents where there is no permission to publish

The other main reason IMCA does not publish incidents is because members fail to give clear permission to publish. In three cases, this was because there has been no response after repeated attempts over months, from the safety professional responsible for reviewing and approving the draft. Given the volume of good quality safety reporting and information we do receive, further attempts to get permission to publish these is not a good use of time and resources, and the unpublished incident is abandoned.

The third reason is related to the second – the member who shared the incident has subsequently given us clear instructions **not to** publish, normally for reasons relating to legal or commercial complexities.

A short topical summary of the 33 unpublished incidents:

- Vessels and seamanship:
  - gangway incidents
  - hose ruptured during pumping of oil
  - damage to deployed equipment
  - vessel collision
  - vessel inadvertently crossed international border following navigation errors
  - potential collision due to COLREG violation;
- Injuries and health:
  - crewman cut hand
  - hand injury during cargo operation
  - injury on ROV LARS step
  - gas quads fell over causing injury
  - outbreak of chicken pox;
- Anchoring and mooring:
  - anchor chain collar parted
  - anchor lost during mooring operations
  - anchor wire broke, vessel lost anchor
  - incorrectly weighted monkey's fist;
- Lifting:
  - crane boom broke
  - failure of subsea lifting equipment
  - incorrect bridle hook up
  - main crane wire parted;
- Small boats:
  - unsafe condition - anomaly during lifeboat lowering
  - broken lifeboat wire;
- Relating to diving:
  - SAT diving carried out with unmarked umbilical
  - neck corrosion in gas bottles;
- Other:
  - dropped object in shipyard
  - cutting and grinding safety
  - equipment failure – gas release from valve plug

- equipment failure – shackles
- failures when incorrectly closing out planned maintenance tasks
- fake BOSIET certificates
- fire in a store – ceiling fan
- safety valve actuator explosion
- zipper adhesive failure impacting immersion suits
- tyre damage to helicopter from helideck lighting.

2 Transferee Stepping from Gangway to Staircase During Rotation

What happened?

During extraction of working teams from offshore wind farm turbine towers in poor weather, a transferee found himself on a gangway as it disconnected. Weather and sea conditions deteriorated faster than was forecast; the decision was taken to extract personnel from a number of turbine towers.

Three teams were safely extracted from three towers. During the transfer of the fourth team, the last person to cross (the team leader) began his transfer. When he was approximately halfway across, an alarm sounded, and the traffic light turned to red. The transferee continued across the gangway, but as he reached the end of the gangway at the vessel end, the gangway reached its extension limit and self-activated auto disconnection.

The equipment is programmed to slew to the right (towards stowed position on the vessel). As slewing occurred, the transferee continued forward to get off the gangway platform. While slewing, the guard rail of the rotating platform passed by the posts on the static part of the platform with approximately 19cm clearance between them. Since the transferee continued his transfer, he exposed himself to a potential crush hazard. The gangway completed its slew into its stowed position and the transferee safely exited the gangway platform.

The gangway safety induction video stated to return to vessel or brace in case of an alarm, depending on the transferee position on the gangway (static part of telescopic part).

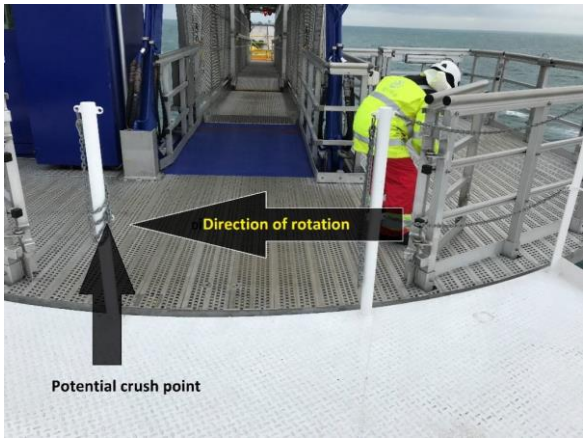


Figure 1: Photo of gangway and railings

Figure 2: Screenshot from gangway operator's induction video

What were the causes

- The **immediate cause** was found to be failure to follow gangway instructions; the transferee continued to transfer from gangway to vessel;
- **Root causes** identified were:
  - insufficient awareness and lack of risk perception of transferee
  - insufficient design risk assessment – design of platform

- unclear instructions – induction gives ambiguous guidance on correct action if alarm sounds. Instructions are to transfer to vessel (when on static part of gangway), rather than continue to gangway platform and await instructions to continue transfer to vessel:

- Contributing **causal factors** identified were:
  - bad weather – wind noise contributed to confusion on the gangway;
  - unsafe construction – crush hazard was inherent to design of platform;

What actions were taken? What lessons were learned?

- The vessel Master noted that the post which forms part of the hazard is actually superfluous to operation and the necessary safety features of the gangway and platforms and could be removed without any effect. The post was removed;
- All crew were to refamiliarize with the gangway transfer safety video;
- Manufacturer of gangway contacted with suggestion to review/revise their design risk assessment with respect to position of poles on fixed platform in relation to proximity to gates on rotating gangway platform;
- A further lesson learned is that gangway instructions differ per gangway manufacturer/operator, which causes confusion amongst transferees.

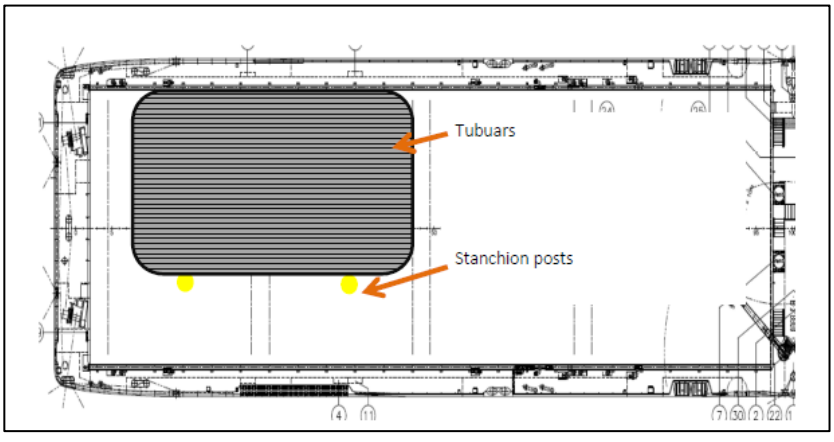
Members may wish to refer to:

- Near Miss During Transfer Operations from a crew transfer vessel (CTV) to a turbine tower
- Near Miss Incidents During Personnel Transfer To Offshore Renewable Energy Installations
- Crew Transfer Vessel Trapped Under A Boat Landing [in deteriorating weather conditions]
- MSF: Three Potential Near Misses During Cargo Operations [in deteriorating weather conditions]

3 Near Miss: Cargo Shifted on Deck in Heavy Weather

What happened?

A platform supply vessel (PSV) was on 'stand-by' near an offshore Installation waiting on weather. Owing to the sea conditions, the vessel was pitching and rolling heavily. A load of 20'' casing had been back-loaded earlier; this load covered two-thirds of the width of the deck on the port side and was stacked two layers high. The casing was secured with pipe stanchion pins. However, on taking a particularly heavy roll to starboard, the pipe stanchions sheared, causing the load to move/roll approximately 3m to starboard, ending up resting against other back loaded cargo.



Weather conditions at the time were: wind gusting up to 45 knots, sea state: 5-6m. As per vessel procedures, no personnel were on deck at the time.

What went wrong?

Both stanchion pins sheared at the base/weld (see images below).

It is believed this incident happened because there was a small gap of 10–15 cm between the forward pin and the casing, which allowed additional load on the after pin when the vessel was rolling, thus causing the aft pin to shear. The most recent visual inspections of the pins were within the last three months and were found to be in a satisfactory condition. However, it was later identified that the pins were several years old and had been in use frequently during adverse weather/winter conditions.

What were the causes?

- Incorrect securing method;
- Poor back-load planning (space between tubular and stanchion pin allowed movement);
- The welds on stanchion pins failed;
- Weather and sea conditions.

What actions were taken? What lessons were learned?

- Increased focus on back-load planning and placement of equipment on deck:
  - box in loads with heavier back-load (this would have occurred on this vessel, however, in this case operations were suspended by the crane operator on the installation, due to excessive wind speed);
- Re-assessment of life-span of securing pins. All pins were replaced with new and welds were subject to non-destructive examination (NDE);
- During loading/back-loading of casing, risk assessment regarding possible additional stanchion pins was needed, especially during winter periods.

Members may wish to refer to:

- Near miss: cargo shifted in heavy seas whilst alongside platform
- Near miss: ROV Broke Free Of Cargo Strops During Heavy Seas
- Able Seaman injured when vessel moved during cargo operations

4 Uncontrolled Release of Walk to Work Gangway

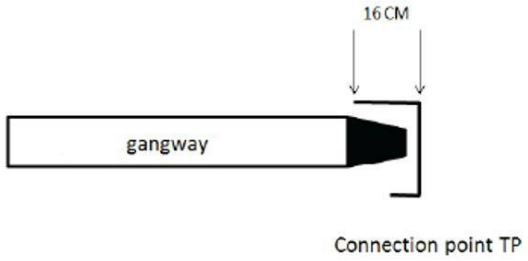
What happened?

A walk-to-work (W2W) gangway system broke loose from its connection point. The incident occurred during transfer of four persons to an offshore wind installation. The first person got the green light (operated manually) to transfer across and did so without problems. After the first person had transferred, the system moved up and down and slipped upwards from its push-on point and came into contact with a floor grating that came loose, resulting in minor damage. The transfer was aborted, and further transfers were done using a CTV (crew transfer vessel).

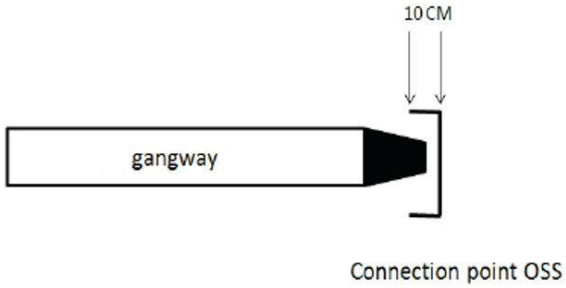
Our member's investigation noted the following:

- The gangway system was tested before the incident and it was observed that the system seemed to be reacting slower than normal, but as it performed well under tests earlier that day it was agreed between operator and captain to start operations;
- There were slight differences in the push-on point design on this installation (a substation) than on the turbine towers (see illustration);
- The weather and sea state at the time was within the working limits for the gangway system (actual 1.5 m and 15 knots versus design 3m Hs & 30 knots wind).

Connection point on TP (painted red)




Connection point OSS (regular construction beam)



What went wrong? What were the causes?

Investigation of the software control for the gangway system Active Motion Compensation (AMC) revealed that the performance for boom motion was not optimal. Corrections were made to the software parameters.

The primary cause was found to be that due to reduced accuracy of the AMC, the vertical force acting on the connection point led to connection failure.

What actions were taken? What lessons were learned?

Corrective steps to prevent future incidents:

- AMC performance to be verified during annual inspection;
- Before connecting the gangway, position the gangway approximately 1m from connection point, visually verify that AMC is stable and that the control error is within reasonable limits;
- Verify that the connection point is designed to fit the gangway with respect to shape and load.

Members may wish to refer to:

- LTI: feet trapped in motion compensated telescopic gangway
- Crane Motion Reference Unit (MRU) malfunctions after overheating
- Near Miss During Transfer Operations from a crew transfer vessel (CTV) to a turbine tower
- Near Miss Incidents During Personnel Transfer To Offshore Renewable Energy Installations

5 Vessel Hit Moored Barge Whilst Turning

What happened?

Whilst turning in a river port, a vessel collided with a moored barge. The vessel`s port quarter grazed the starboard bow of the barge at around 0.1 knots. Damage to the vessel was not extensive, but the cost of repairing the damage to the barge was estimated to be US$350,000.

The incident occurred when the vessel was required to turn in a smaller turning basin than usual, in which there was a barge moored alongside a terminal within the turning radius of the vessel. The estimated turning area was 290 metres across; the barge was 17 metres wide and the vessel was 244 metres long. This left a very small margin of 29 metres.

Damage to the Barge

Damage to the Bollards

Damage to the vessel

What went wrong? What were the causes?

- The vessel turned in a smaller turning basin to save time and avoid traffic whilst a barge was moored alongside an oil terminal present in the vessel's turning radius. The original plan was to turn in a larger turning basin further up the river;
- The bridge team did not challenge the Pilot`s orders or intervene;
- Risk seen as tolerable: the deviation from the current voyage plan for pilotage waters was based on pilot's advice only and not properly assessed by the bridge team as it ought to have been;
- Complacency: the vessel crew had turned their vessel here before on several occasions, and had two pilots present on the bridge;
- Inadequate supervision: there was misjudgement of vessel movement, external forces (wind, current) and of the clearance to the barge.

What lessons were learned?

- Better communication with the Pilot and with mooring teams, regarding turning ranges to the shore/bank of the river and other vessels alongside the berth before starting turn;
- Avoid turning where there is only marginally enough room;
- Be more fully aware of vessel manoeuvring characteristics and inform the Pilot accordingly.

Members may wish to refer to:

- Near Miss: Sailing close to a construction barge
- Near Miss: Unauthorised Release Of Shore-Controlled Mooring Lines
- Collision between OSV and barge