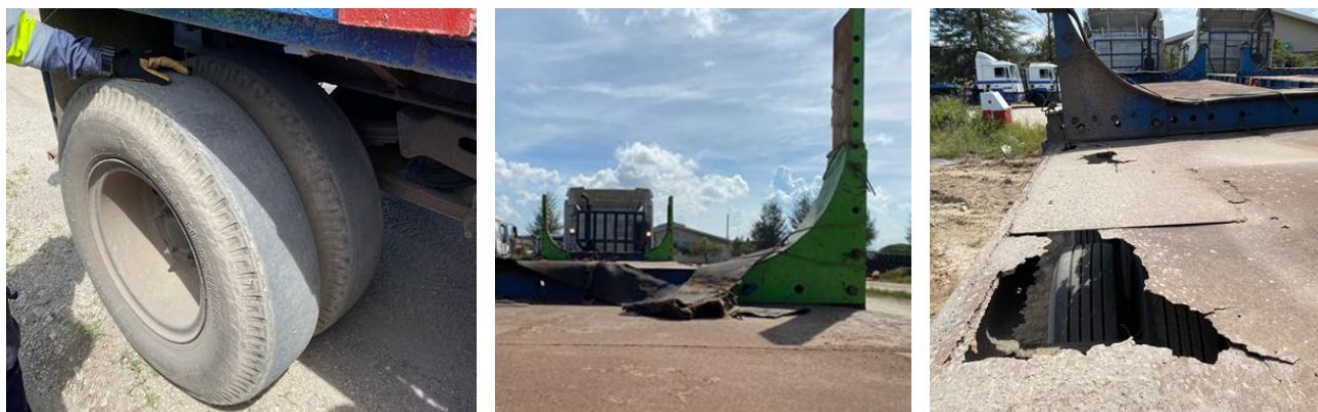


IMCA Safety Flashes summarise key safety matters and incidents, allowing lessons to be more easily learnt for the benefit of all. The effectiveness of the IMCA Safety Flash system depends on members sharing information and so avoiding repeat incidents. Please consider adding safetyreports@imca-int.com 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 Third-party truck not in appropriate or safe condition

What happened?

During preparation for transporting pipe sections from port to a coating supplier's facility, trucks to be used for the pipes were inspected and several defects identified. Trucks found in an unsafe condition were rejected by the company's site representative.



Multiple trucks were deployed by the coating supplier. During preparation it had been identified by the project team that there was the potential risk for trucks to be provided in an unsafe condition. This was known from a previous project involving the same supplier at the same location.

A planned inspection of trucks was performed jointly by the coating supplier and company site representative as part of the preparation activities. Several defects across multiple trucks were identified. The supplier was instructed to remove the trucks from service until all defects were rectified.

What was wrong? The following truck defects were identified:

- Unsafe tyres (low tread levels);
- Expired vehicle registration certificate displayed on trucks;
- Heavily corroded trailer beds, including holes on surface;
- Rubber padding was found worn and detached from bolsters;
- Fuel gauge not working;
- Missing side mirrors;
- Sagging wheel fenders, contacting tyres.

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Lessons learned

- Clearly define requirements and expectations relating to use of trucks with applicable 3rd parties. This should include truck condition/roadworthiness, required safety features, driver qualifications and competence, fatigue management and route planning;
- Consider adopting a specific truck inspection checklist to be used by the site team;
- Company site representative to participate in truck inspection activities and is authorised to reject any trucks considered unfit for purpose.

IMCA notes that another member has recently submitted an incident in which a third-party truck experienced a failure. In this instance, a low loader was being reversed out of a yard (after loading up from a vessel in port) when a hydraulic hose burst on the trailer resulting in approx. 10 litres of hydraulic fluid leaking onto the yard surface and rendering the vehicle inoperable.

Members may wish to refer to:

- [Hydraulic hose failure caused collapse of heavy haulage trailer](#)
- [Crew member stopped unsafe cargo operations](#)
- [Load fell from trailer after it was inadequately secured](#)
- [More than a dropped object – the need for vigilance during cargo operations](#)

2 Machinery breakdown leads to a collision

CHIRP Maritime, an industry charity facilitating confidential incident reporting from seafarers, has published its Annual Digest 2021, which includes a number of events and incidents of interest to IMCA members. The aim of CHIRP Maritime is to enhance maritime safety worldwide, by providing a totally independent confidential (not anonymous) reporting system for all individuals employed in or associated in the maritime industries. This incident is one of them.



What happened

While proceeding to a berth, a tanker experienced main engine failure and collided with a barge berthed outboard of another vessel moored alongside a breakwater. The fully laden vessel (a tanker) entered the breakwater with a speed of 8.3 knots and was swinging to starboard when the main engine was stopped. The pilot ordered hard to port and dead slow ahead as the vessel continued to swing to starboard, but the main engine failed to respond. The pilot ordered bow thruster full to port, although the master advised it would be ineffective at speeds over 6 knots. The vessel subsequently collided with a moored barge at around 4.5 knots.

What went right

- Before berthing, company procedural checks were carried out and all were found satisfactory;
- Weather conditions at the time of the incident were light wind, a calm sea with no swell, and good visibility;
- The bridge was manned by the master, second officer, lookout, helmsman and pilot. ECDIS was used as the primary means of navigation.



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What went wrong

- Detailed inspection identified significant hull damage although the vessel was not holed.
- Investigation revealed that engine control system maintenance work conducted 6 days beforehand had not been properly completed nor had it been inspected afterwards.
- A red locking pin (see photos) had not been correctly secured back into position and during manoeuvring had shaken loose due to vibration. This activated the emergency manoeuvring system which overrode both the bridge and engine room control systems.
- The root causes for this incident were found to be a **lack of understanding of the risks** by the engineering officers carrying out the checks, which were not overseen by a supervising officer – a company procedural requirement which was not followed.

Lessons learned

- Amend pre-arrival and departure checklists to include physical verification of the emergency manoeuvring system's locking arrangement;
- Ensure closer integration between pilot and bridge team;
- Look out for single points of failure.

Members may wish to refer to

- [MSF: Contact between Vessel and Offshore Installation](#)
- [Collision between vessels](#)
- [Vessel made contact with installation](#)

3 Equipment found live: drawings incorrect for Lock-out/Tag-out

What happened?

An electrical working foreman was “checking for dead” on control oil pump motor space heaters. It was discovered that the heaters were still live and energized. The heaters were not included in the Lock-out / Tag-out arrangements. After review of the drawings and the load centre breaker schedule, it was determined that the drawing and the breaker schedule were incorrect. The heaters were indicated as one circuit on the drawings and the breaker schedule, but they were traced back to another circuit.

Work was stopped and the LOTO, drawings and breaker schedule were all modified.

What went right

- An increased focus on LOTO during this outage allowed electrical personnel to find the error;
- The electrical working foreman noticed the hazard and it was corrected;
- No-one was harmed.

What went wrong?

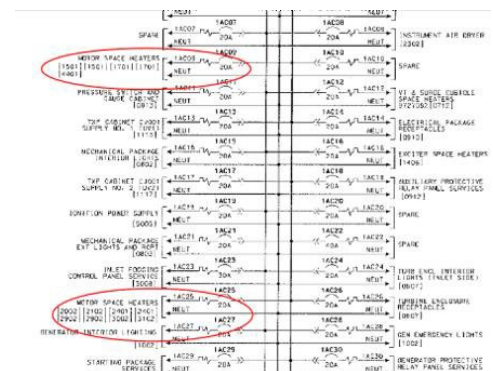
- The drawings were incorrect, but as this work was infrequent, it had not been noted previously;

Lessons learned

Applicable
Life Saving
Rule(s)



Energy
Isolation



- There was a review of work practices with plant staff to communicate the issue as a result of this alert;
- Ensure all appropriate or possibly relevant electrical equipment is locked out/tagged out;
- **Always “check for dead”.**

Members may wish to refer to:

- [Electrician suffered flash burn to hand](#)
- [Crisis Management: Rail Industry High Potential Near Miss](#)
- [Incorrect as-built drawing configuration](#)
- [Incorrect pressure gauge on high pressure supply line](#)

4 MSF: CO₂ system left non-operational after servicing

What Happened

The Marine Safety Forum has published Safety Alert 22-10 relating to an important safety system being left non-operational after it was serviced. The incident happened when a vessel had recently undergone a firefighting equipment survey. All equipment was fully inspected, and any faults or discrepancies were rectified. The Fixed CO₂ system flexible hoses were renewed. To allow the survey to be conducted safely, safety pins had been put in place, while the outside contractors carried out their inspection. When finished these should have been removed, to make the system ready for activation – **but they weren’t.**



Almost 4 weeks after the survey, after a routine inspection, it was found that the safety pins inserted during the survey had not been removed and were still in place making the system inoperable. This had a high potential to develop into a serious incident if the CO₂ system had been required for extinguishing an engine room fire.

A similar safety alert had been issued by the vessel owner to their fleet in August 2021.

What went wrong

Exact details on causes and corrective actions specific to this incident were not provided by the submitting party / vessel owner, but lessons learned, and actions below were reinforced from the previously mentioned fleet safety alert that had been issued in August 2021. This guidance was relevant to the incident described.

It should be noted that the recommendations were specific to that vessel owner; each vessel or company should review against their own processes.

Lessons learned

- Use of a Permit to Work may be considered for any maintenance work on essential fire fighting equipment – or indeed any essential safety system which if inoperable, might be potentially life-threatening;
- Careful control and records should be kept of the isolation of such equipment to help ensure that the system cannot be left in an inoperable condition;
- Never assume and rely that all will be well and ok. Assumption is the pathway to undesired events. Always check and verify;
- Ensure thorough inspection of third-party work to ensure any systems worked on are reinstated to original design intent after completion of the task;
- Work is only complete when the isolations are removed, and the permit can be closed.

The MSF notes that this is an example of Safety Flashes / Lessons Learned, issued by the company, not being acted upon, distributed, or reviewed by all crew members.

- Safety information issued by shoreside or vessel management should be fully discussed, circulated to all crew members, and acted upon, as required to maintain the safety of all onboard the vessel. This should include all circulars, Safety Flashes, lesson learned, and outside bulletins = all should be suitably posted, discussed and noted by all crews;
- Include such safety briefing, material and alerts in hand over notes to ensure your colleagues are also properly informed;
- Could a similar occurrence happen on your vessel?

Members may wish to refer to:

- [Wrong key for the CO2 room](#)
- [Fixed CO2 fire extinguishing systems – US Coast Guard alert](#)
- [Serious failure of CO₂ fire-fighting system](#)

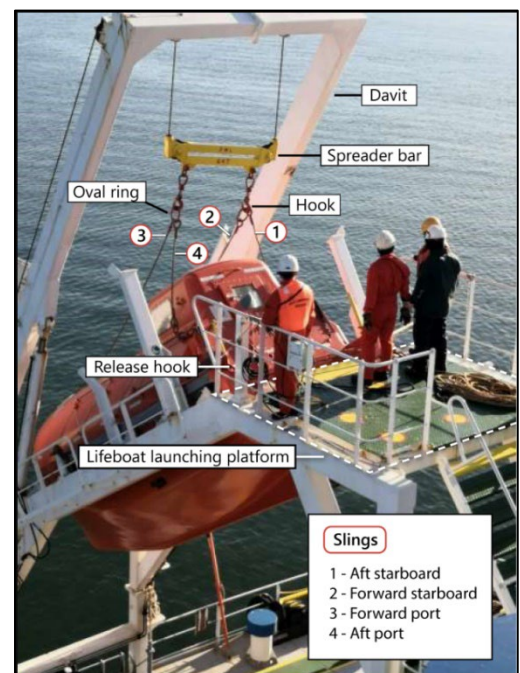
5 Accidental release of free-fall lifeboat

What happened

The Transportation Safety Board of Canada (TSB) has published [safety investigation report M20P0353](#) relating to the accidental release of a free-fall lifeboat from a bulk carrier. The incident occurred in December 2020. The crew were carrying out a free-fall lifeboat drill while the vessel was at anchor, when the wire rope slings holding the lifeboat failed and the boat fell approximately 14m to the water. There were two crew members in the lifeboat at the time. Both were seriously injured and were transferred to hospital. The forward starboard side of the lifeboat's hull was damaged. There was no pollution.

What went wrong

- Findings as to causes and contributing factors - conditions, acts or safety deficiencies that were found to have caused or contributed to this occurrence;
 - The crimp sleeves on the lifeboat slings had weakened over time as a result of intergranular stress-corrosion cracking;
 - The manner in which the slings were attached to the hooks caused the load to concentrate on the aft starboard sling. This, in combination with the weakened crimp sleeves, caused the sequential failure of the slings and the aft port sling bracket;
 - The crew had developed an informal practice that did not address the risk of standing unsecured in the lifeboat;
 - There was no additional restraining device in use to protect the crew in the boat from falling when the slings failed.
- Findings as to risk - these are conditions, unsafe acts or safety deficiencies that were found not to be a factor in this occurrence but could have adverse consequences in future occurrences;
 - In the absence of any international guidance requiring free-fall lifeboat slings to be verified periodically, inspected before use, and marked with a safe working load, there is a risk that this critical equipment will be overlooked during inspections or its safe limits will be exceeded, leading to an accident.



- If supervisors are required to take an active role during safety critical tasks such as lifeboat drills, their attention will be divided and they will be less able to attend to all aspects of the task, increasing the risk that safety critical items will not be identified in time to prevent an accident.

Members may wish to refer to:

- [Master links came free from lifeboat release hooks, releasing the lifeboat](#)
- [Free-fall lifeboat safety](#)
- [Lifeboat wire rope failure](#)
- [Tombarra fall wire fatality: Updated reports](#)