

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](mailto: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 Shackle failure during over-boarding of pennant wire and ballast chain

### What happened

During over-boarding of the pennant wire and ballast chain from the main anchor handling winch over the stern roller, there was a failure in the chain link / 35t shackle. The failure occurred and the damaged chain came off the winch, went across the main deck and over the stern of the vessel. Everyone was in a safe position, and no-one was harmed, but there was damage to other nearby winch equipment. 110m of chain were lost overboard; our member calculated that this meant there was approximately 31.7t (submerged weight) of tension on the chain at the time of the incident.

Applicable  
Life Saving  
Rule(s)



Line of Fire



*Breaking point location of shackle on drum*



*Impact damage from flying chain directly above*



*Sheared piece of metal from shackle pin – found close to the winch where the beam was damaged*

### What went wrong?

- Evidence suggested that during the over-boarding of the chain, the nut on the shackle pin became lodged behind the stud piece of the chain link whilst wrapped on the winch drum.
  - When tension was applied on this section of the chain the links straightened and caused the nut of the shackle to be forced off along with the stud piece.
  - The resultant shock may have then forced the pin out of the shackle and allowed the chain to part;
  - At the point of shackle failure, the chain on the winch drum became loose and whipped towards the special handling winch causing multiple impact damage to surrounding equipment;

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## What was the cause?

- Immediate causes
  - Connection of different chain link sections using shackles and spooling them off the stern of the vessel for wet storage;
  - The decision to wet store the ballast chain was made onboard and not covered in the original project planning or HIRA.
- Underlying causes
  - No inspection certificates available for the 82mm chain;
  - Poor maintenance of the 82mm chain due to the fact it was only to be used as ballast weight in single 27.5m sections;
  - Kenter joining links were not used to connect the section of 82mm chain together, they were ordered but did not arrive;
  - Internal signed management of change documentation was missing some important detail regarding the actual connection of the individual chains to be wet stored;
  - The chain was connected with 35t shackles which have multiple edges that can be caught or trapped inside other equipment, especially the nuts.



*Pictures of damaged shackle nut and pin – shackle nut located STB side of winch near walkway and shackle pin found at the back of the winch. (Clear indication the shackle was side loaded)*

Our member concluded that the assessment of risk of connecting the chains using the shackles was overlooked mainly due to *last minute change* in the engineering planning of this scope of the project (IMCA italics).

Members may wish to refer to:

- [LTI: person injured when hook parted during lifting operations](#)
- [Hyperbaric lifeboat emergency lifting chain link failure](#)
- [Near-miss: Safe use of chains in rigging](#)
- [Failed shackle on vessel life raft](#)

## 2 MSF: Dropped object during cargo discharge operations

The Marine Safety Forum (MSF) has published [Safety Alert 21-14](#) relating to a dropped object during cargo discharge operations.

### What happened

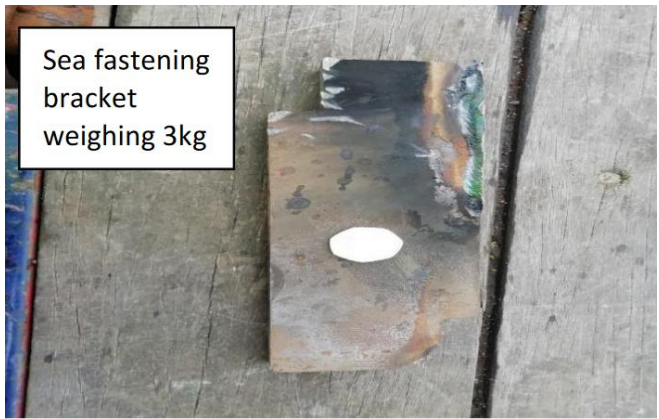
A cargo ship loaded with cargo for the renewables sector was being discharged using a mobile shore crane when a sea fastening bracket weighing about 3 kg fell out of a forklift pocket from a generator that was being offloaded and landed onto a trailer on the quayside.

The vessel was loaded with some 40 heavy lift items, each secured to a steel lifting frame with forklift pockets, each weighing about 80 tonnes, these had all been secured with 8 sea fastenings brackets per lift. The cargo was stowed over 3 decks and the sea fastenings were being burnt off by the ships' crew and swept up. During discharge of the lower tween deck a sea fastening was observed to fall from a forklift pocket. The following day another bracket was observed inside a forklift pocket.





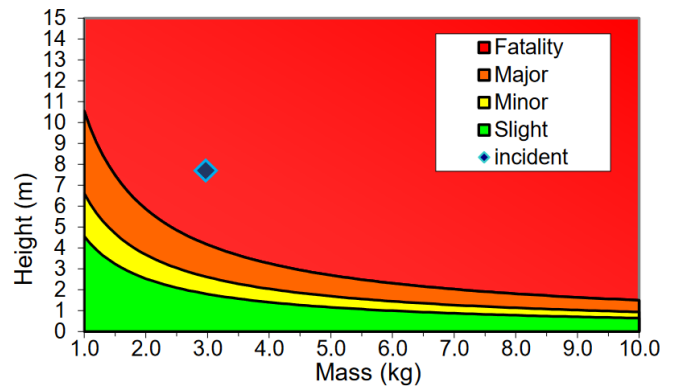
Lift 8m above quayside during discharge



Sea fastening bracket weighing 3kg



Sea fastening bracket found inside a lift the following day



A total of 320 brackets had been burnt off. The two missed ones could have resulted in a fatality.

### What went wrong

The MSF's correspondent noted the following:

- Deck crew were unaware of the requirement to carry out a dropped object sweep of each lift with an emphasis on forklift pockets;
- The lighting in the lower tween deck was poor.

The original MSF report noted that the sea fastenings were being burnt off by the ships' crew and "diligently" swept up. Obviously not diligently enough...

### Actions

- The importance of dropped object sweeps was reiterated to the crew.
- IMCA notes that there may be a lesson here in terms of additional vigilance when doing repetitive work. 320 sea fastenings, and two were missed.

Members may wish to refer to:

- [Near-miss: Dropped object from cargo](#)
- [High potential dropped object](#)
- [Dropped object incidents](#)

### 3 MOB: person fell into water during gangway installation

#### What happened

Deck crew were installing a portable gangway when a crew person fell into the water. The person was wearing full PPE and a life jacket and was recovered without injury.

Applicable  
Life Saving  
Rule(s)



Bypassing  
Safety  
Controls



Line of Fire

#### What went wrong

One crew person (AB1) went ashore to pass the gangway ropes to a second person (AB2) on the vessel. AB2 began to pull the ropes without informing AB1, and as a result AB1's foot became trapped under the gangway. AB1 could not pick up the gangway from the midway position to release his foot because the only item for lifting in this position was the net and rope which runs through the stanchions. So he asked AB2, on the vessel, to pick up the gangway from the vessel to release his foot.

AB2 attempted to lift the gangway (see photo) but was unable to heave it high enough to release the trapped foot. He then stepped aside with the gangway and at that moment he lost his footing and slipped and fell into the water.

#### What went wrong/what were the causes?

IMCA notes that this was a very simple and wholly avoidable incident with causes that remain "evergreen" or of permanent interest to members.

- The crew did not inform to the Bridge and Captain that they were conducting the gangway activity;
- The crew were tired and in a rush to complete the job; they took no Toolbox Talk nor "Take 5" moment before the job;
- There were not enough people to do the job safely;
- The AB that fell overboard ought have kept three points of contact while working in the narrow bulwark;
- No-one stopped the job - Stop Work Authority was not exercised when the task could not be completed safely;
- There was no risk assessment for installing the gangway.

#### Actions

- Use Toolbox Talks, even for the most ordinary or everyday operation;
- Ensure better communication between bridge and deck at all times, not just when installing gangways;
- Check onboard arrangements for manual handling of gangways, including development of Risk Assessment
- Ensure sufficient supervised and properly rested crew are available for the job.

Members may wish to refer to:

- [Double man overboard resulting in one fatality](#)
- [Man overboard incident \(not fatal\)](#)
- [Unsafe personnel transfer – man overboard](#)



Area where crew member fell into water



Position of ABs during installation

## 4 Diver finger injury from Lionfish fin ray

### What happened

A diver suffered a finger injury from a Lionfish fin ray. The incident occurred during diving operations, when the diver went to pick up some tooling and the Lionfish came close to the diver. The diver tried to push the fish away, and in doing so his right thumb was pricked by one of the fin rays of the fish. The diver was recovered to the bell; on closer inspection there was a slight bleeding and small piece of the fin ray lodged in thumb. The bell was recovered to surface, where the medic assessed the injury and treated with a wash, dressing and pain killer.

### What were the causes?

Our member noted immediate, underlying, and root causes:

- Immediate Cause - contact with sharp object (divers right thumb punctured through glove by one of the fish spines);
- Underlying Causes:
  - Behaviour – Poor decision making / judgement (diver tried to wave / push fish away);
  - Behaviour – Lapse / mistake / omission (divers had been advised to keep clear of hazardous marine life and not attempt to move or engage them in any way);
- Root Cause - lack of due care in response to known hazard in that region.

### Actions

- Review of gloves worn by divers to ensure suitability for protection against venomous fish in that region;
- Refresher training with dive team on venomous fish hazard and update of risk assessment;
- Additional controls implemented for remainder of project:
  - Every Dive team briefing included risk of venomous fish;
  - Dive Supervisor monitor video feed and warn of any Lionfish in vicinity;
  - Divers increased buddy watching in water to warn of fish in vicinity.

Members may wish to refer to:

- [Near-miss: Leopard seal interference with diver](#)
- [Irukandji jellyfish awareness \(Australia\)](#)
- [Precautions against jellyfish sting during diving operations](#)
- [HSE: Allergic reaction at work](#)



*A Lionfish (Fin Ray highlighted)*

#### Lionfish

Lionfish are harmful to humans. A lionfish sting can be very painful, and though not normally fatal, the sting can cause other potentially serious medical problems for divers.

Lionfish can be aggressive, even engaging potential threats with a 'spines forward' approach; they should be treated with caution at all times.

## 5 Fuel oil hose burst during bunkering

### What happened

During bunkering a vessel in port, a 2" fuel oil hose burst. The hose burst as the fuel transfer rate was increased at the start of the operation. Around 30-50 litres of fuel oil were spilled on the jetty. Owing to the quick reactions of the Master and crew, no fuel went overboard.

### What was the cause?

Our member notes that this is a preliminary cause and investigation is ongoing. The reason for the failure has yet to be confirmed; the hose had recently undergone a third-party test and certification.



*Section of the hose that failed*



*Stowage of hoses in coiled position due to long lengths*



*Crew immediate response in containing the spill*

A suggestion raised was that the fuel oil hose had been damaged over long periods of time by being stowed in an improper coiled position due to its length (longer than the deck stowing location).

### Recommendation

- Inspect cargo hose stowage and consider whether those that are stowed in a coiled position, need to be moved or changed in position more frequently so as to avoid damage / kinks in the same location.

Members may wish to refer to

- [Near Miss – Damaged Rig Hose](#)
- [Safety Flash 18/16](#) - all incidents of which relate to the inappropriate or unplanned release of substances or objects