Isle of Man Ship Registry

Annual Summary of Casualties, Accidents and Incidents on Isle of Man Registered Vessels

2023

Isle of Man Government
Department for Enterprise

Isle of Man Government
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Executive Summary

- There were 36 Accident, 29 Incident and 3 Casualty reports in 2023
- The most common occurrences in 2023 were collision/allision, sudden uncontrolled release of substances from a system and seafarer injury
- Watch keeping duties and mooring operations were the most common activity reported on the ARF forms
- There were 5 fatalities, 5 serious injuries and 11 minor injuries reported in 2023
- Using portable tools and moving about the ship were the most dangerous activities for seafarers
- The most common causal factors were the working method used and mechanical factors
- The most common causes identified for each causal factor were:
    - Working method – Unsafe working methods, failure to comply with instructions and machinery jamming/seizing
    - Mechanical and other equipment – Hydraulic/Pneumatic hose failure and failure of machinery automatic safeguards
    - Human factor – Negligence or carelessness of others
    - Other miscellaneous causes – Ship movement
    - Movement about the ship – Dropped objects and slippery surfaces

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Contents

Chapter 1 Introduction

The Isle of Man Ship Registry's 2023 Casualty Summary report provides statistics and analyses the trends identified from the Accident Report Forms (ARF) submitted to the registry over the course of 2023. We hope providing this data will help to reduce similar accidents in the future. All identifying information has been removed to respect the confidentiality of our clients and seafarers.

This report does not include statistics relating to fatalities or injuries from natural causes or suicide unless they are directly related to an 'occurrence' on board.

An 'occurrence' is either a **casualty**, **accident** or an **incident** as defined in the Merchant Shipping Accident Reporting and Investigation Regulations (SD815/01), with casualty being the most severe type of occurrence. In some areas of this report, the classification 'Fatality' is used where a casualty occurrence has resulted in death. These occurrences are still casualties under SD815/01 but the distinction is made to highlight the severity of the occurrence.

In this report, a "***serious injury***" means an injury sustained by a person resulting in incapacitation where the person is unable to function normally for more than 72 hours, commencing within seven days from the date when the injury was suffered. A "***minor injury***" means any lesser injury that is not a serious injury.

Chapter 2 Investigations

All reports received that are "Very Serious Marine Casualties" as defined by the IMO Casualty Investigation Code are investigated and have a report published.

For all other reports received, a decision is made by the Isle of Man Ship registry as to whether an investigation is required or not. Any reports published are available on the IOMSR website.

2.1 Investigations of incidents that took place by IOMSR in 2023

Type of Ship	Nature of Investigation
None	

2.2 VSMC Safety Investigations conducted by UK MAIB for IOM in 2023

Name of Ship	Type of Ship	Nature of Investigation
Verity	Cargo Ship	Sinking

2.3 Reports Published by IOMSR in 2023

Ship Name	Type of Ship	Nature of Investigation
Moritz Schulte	Gas Carrier	Engine Room Fire Fatality
Teal Bay	General Cargo	Mooring Accident Fatality

2.4 Investigations on IOM Vessels by other investigation bodies in 2023

Type of Ship	Nature of Investigation	Investigation Authority
None		

Chapter 3 ARF Reports Received in 2023

3.1 Reports from Isle of Man Registered Ships

In 2023, the Isle of Man Ship Registry received 68 ARF reports from Manx ships, no reports were received from foreign flagged vessels in Manx waters over the period. The graph below shows the number of reported occurrences in 2023.

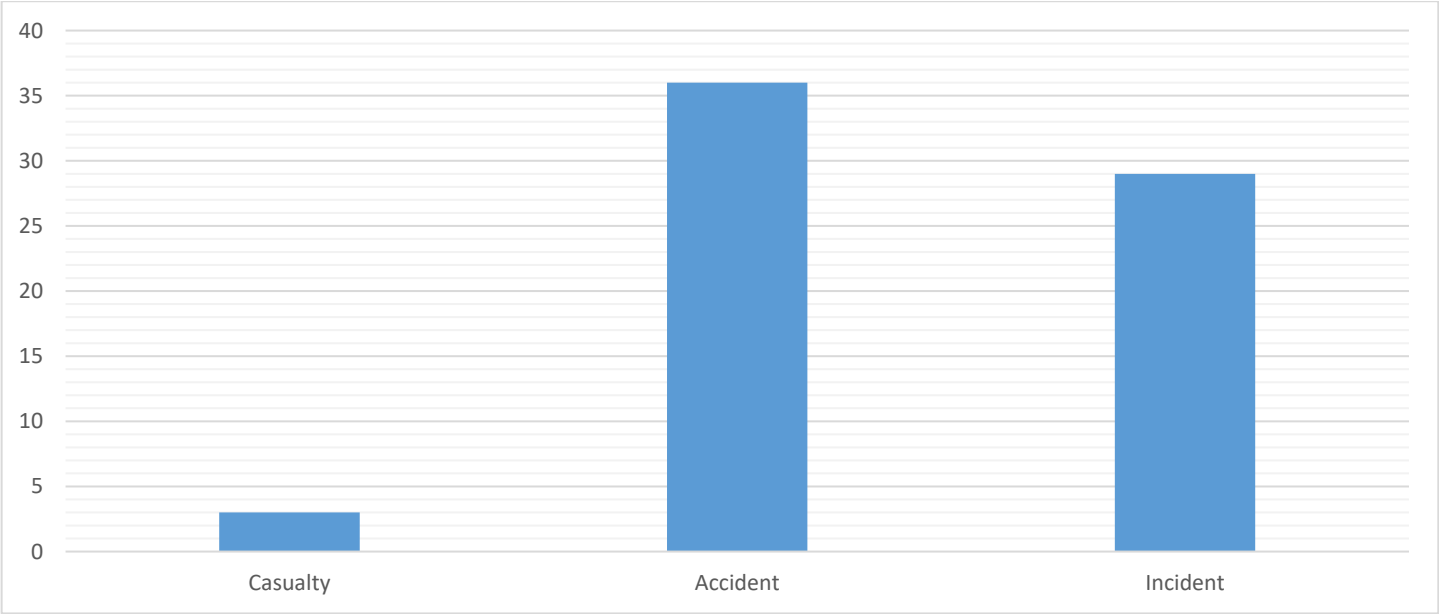

Figure 1 – ARF reports received in 2023

The table below gives a breakdown of cases reported per ship type in 2023.

	Bulk Carrier	Oil/Chemical Tanker	Gas Carrier	Offshore / Standby	Other Cargo Ship	Passenger Ship	Commercial Yacht	Pleasure Yacht	Fishing Vessel
Casualty	0	0	0	0	1	1	1	0	0
Accident	3	2	2	15	2	4	7	0	1
Incident	5	1	0	10	8	1	2	2	0
Total	**8**	**3**	**2**	**25**	**11**	**6**	**10**	**2**	**1**

Of the 25 accident ARF reports submitted from Offshore/Standby vessels, 12 of these were related to minor leaks (<2ltr) of oil or other fluid to sea. These have been disregarded from further analysis to allow trends pertaining to safety to be highlighted without bias from these reports.

Chapter 4 Analysis of ARF Reports Received in 2023

The most common occurrences reported to the Isle of Man in 2023 were collisions, sudden uncontrolled release of substances from a system and seafarer injuries (fig.2).

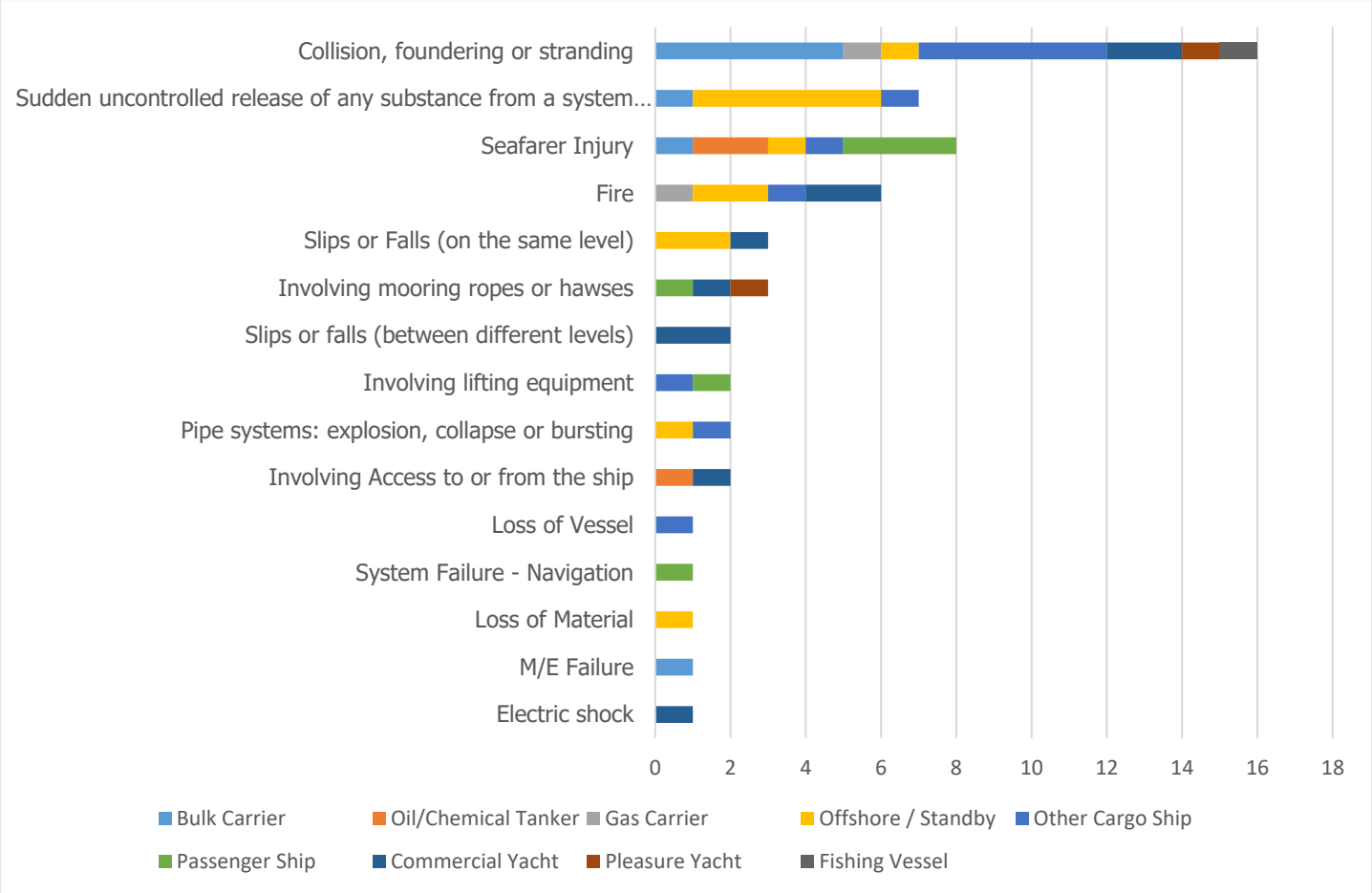

Figure 2 - ARF Occurrence by Ship Type

The reported occurrences come from several different ship types and there does not appear to be enhanced risk associated with a specific class of ship. No matter the vessel, effective preparation and constant vigilance should be maintained during all work tasks.

To minimise the risk of collision, allision and grounding occurrences, correct watch keeping procedures, organisation of work and vigilance are key.

Pipes, hoses and all other equipment associated with the movement of substances onboard should be regularly inspected for signs of deterioration to minimise the risk of failure during their use.

Thorough risk assessments, toolbox talks and detailed plans of work before starting any job are vital to minimise the risk of seafarer injury during work.

Figure 3 below shows the ARF reports received in 2023 broken down by the activity being performed at the time of the accident:

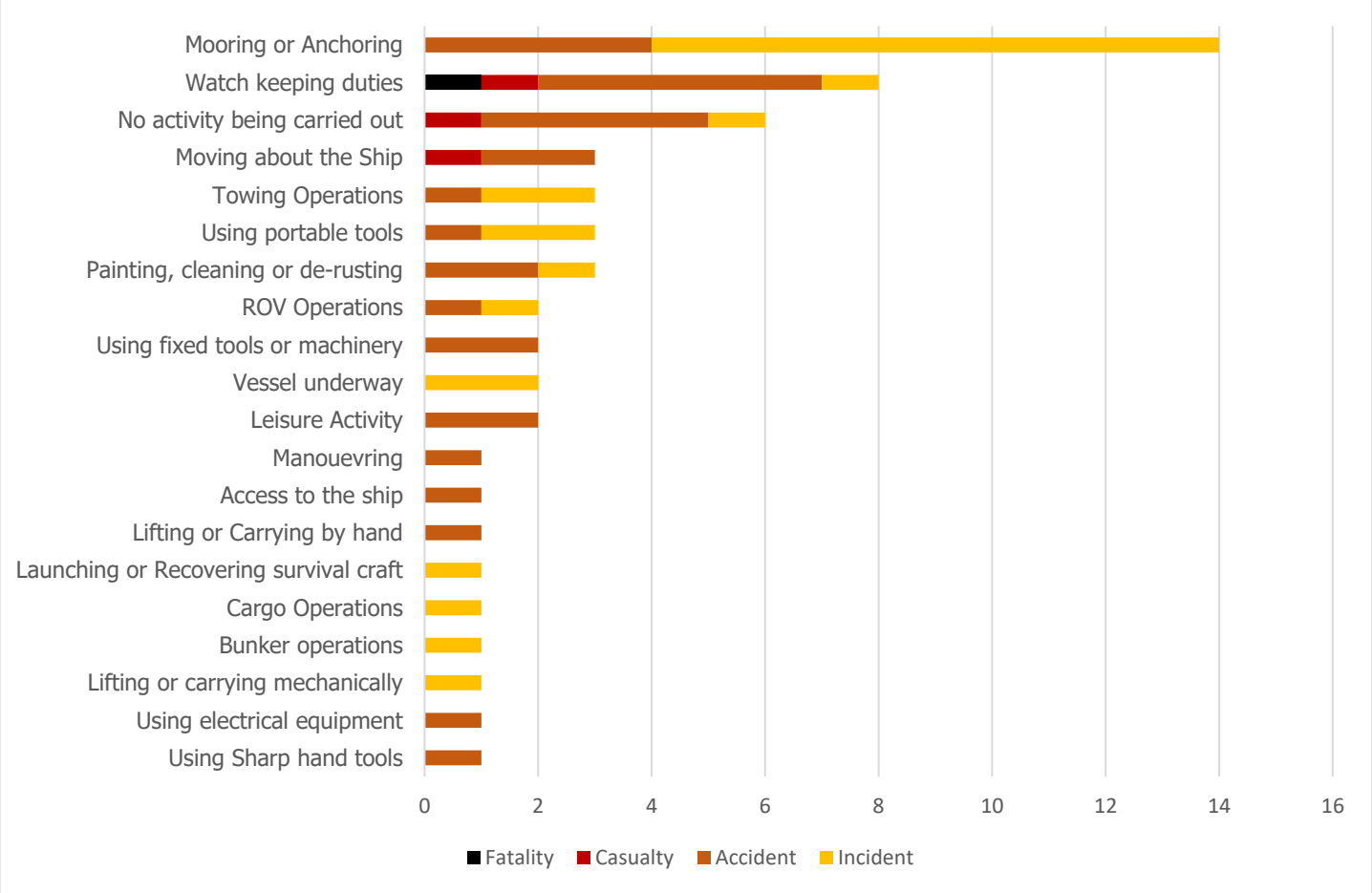

Figure 3 - ARF Reports by Activity Performed

Watch keeping duties and Mooring/Anchoring were the most prevalent activities being performed at time of incident. Mooring is one of the most dangerous activities on board when a marine accident occurs due to the significant potential energy bound within the tension of the ropes. Crew should be regularly reminded of the dangers of mooring activities and training in the same should be comprehensive and thorough, particularly for seafarers who are new to the vessel and may be unfamiliar with that vessel's specific danger zones.

The number of occurrences discovered through watch keeping duties highlights the importance of maintaining an effective and vigilant watch using crewmembers or a robust UMS system. Early detection of occurrences such as fire or failing/deteriorating equipment is crucially important in ensuring that minor incidents do not develop into something far more serious.

This year saw a rise in the number of occurrences resulting from movement of seafarers around the ship, the ship is a unique environment, it can be easy for complacency to set in when living and working aboard a vessel for several months at a time. The danger should never be underestimated however and seafarers should be reminded of the need to move sensibly around the vessel and maintain three points of contact wherever possible, particularly in times of inclement weather.

2023 also saw the tragic loss of 5 crewmembers aboard the MV Verity, the MV Verity collided with another vessel off the coast of Germany in the early hours of the morning. Investigations are ongoing by the MAIB to establish the root causes of the incident. Our thoughts are with the families of those affected by the tragic loss of MV Verity.

Chapter 5 Reported Injuries and Fatalities

This section of the report analyses only the ARF reports received in 2023 that resulted in injury to a person. In 2023, there were a total of 5 fatalities, 5 serious injuries and 11 minor injuries recorded.

5.1 Seafarer Injury Rate

The table below shows the approximate rate of injury and severity across the Isle of Man fleet extrapolated to the injury rate per 100,000 seafarers. This gives a standardised industry health performance and allows for comparison between other work sectors (i.e. construction).

	All Ships		MLC Ships		Non-MLC Ships	
Seafarers Injured	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**
Fatalities	5	45	5	61	0	0
Serious injuries	5	45	3	36	2	72
Minor injuries	11	100	10	122	1	36

Rate per 100,000

Note:

1. The number of seafarers is estimated based on a seafarer average per ship type per ship size. Number of seafarers is based only on seafarers employed on board ships only and does not include seafarers at home on leave.
2. "**MLC Ship**" means any ship to which the Maritime Labour Convention 2006 applies.
3. MLC seafarer does not include passengers, yacht guests, visitors or crewmembers employed on a non-MLC ship.
4. See introduction for definition of "Serious Injuries" and "Minor Injuries".

5.2 Number of Injuries and Fatalities Reported

The tables below show a breakdown of injury by rank on board.

MLC Seafarer Injuries

MLC Seafarer Injuries by Rank	Minor	Serious	Fatality	Total
Master	0	0	1	**1**
Chief Officer	0	0	1	**1**
OOW Nav.	2	1	0	**3**
Chief Engineer	0	0	1	**1**
2nd Engineer	1	0	0	**1**
OOW Engineer	1	1	0	**2**
ETO	0	0	0	**0**
Deck Rating	1	1	1	**3**
Engine Rating	3	0	0	**3**
Deck/Eng. Cadet	0	0	0	**0**
Cook/Steward	2	0	1	**3**
Others	0	0	0	**0**
Total	**10**	**3**	**5**	**18**

Non-MLC Seafarer Injuries

Non-MLC Seafarers	Minor	Serious	Fatality	Total
Passenger / Yacht Guest	1	1	0	2
Visitor/Contractor/Stevedore	0	1	0	1
Fishing Vessel Crew	0	0	0	0
Total	**1**	**2**	**0**	**3**

In 2023 Navigation Officers were the most likely rank to obtain an injury during the course of their working duties

5.3 Injury by Activity

Figure 4 shows the injury severity by the activity being performed.

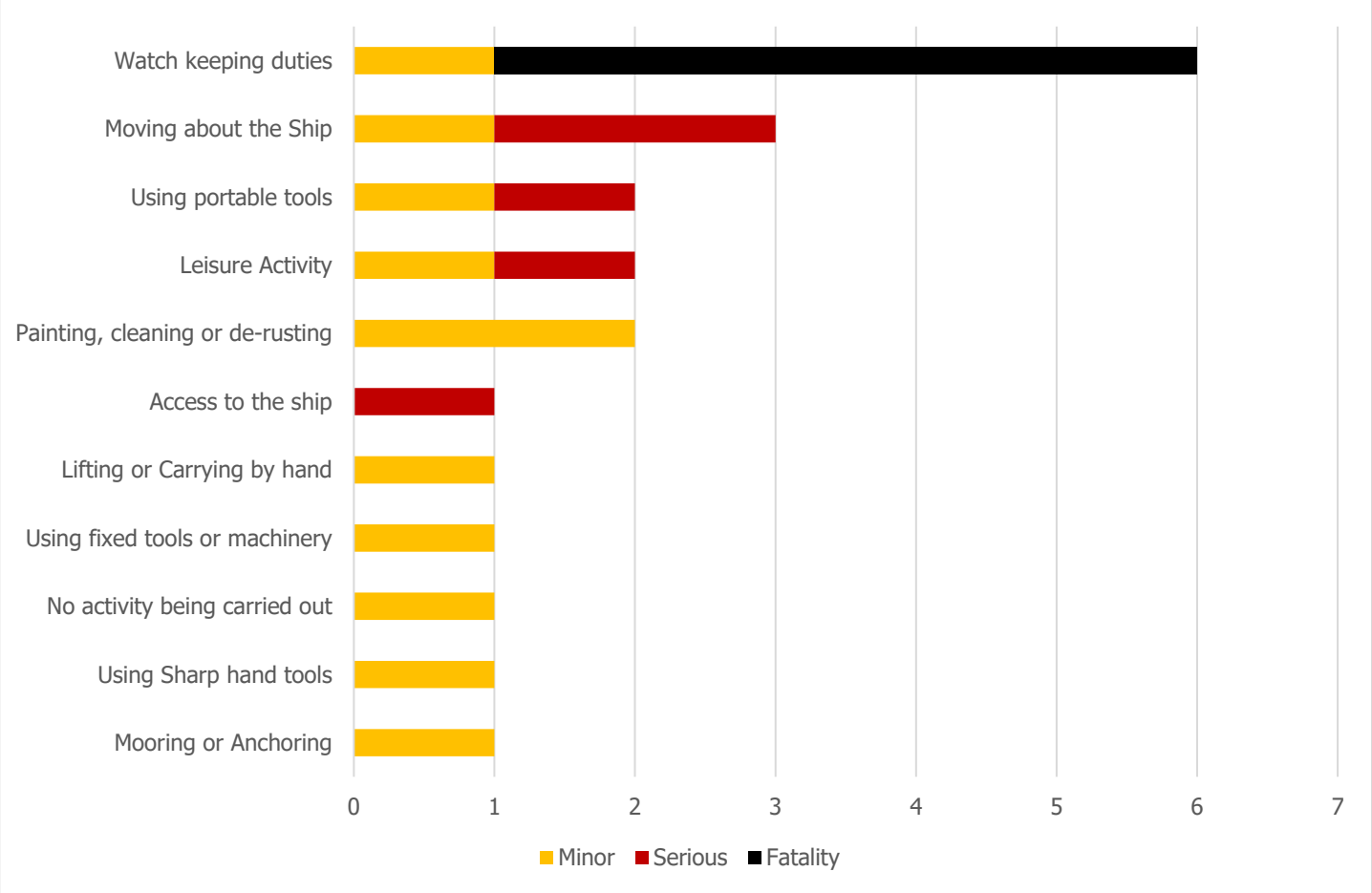

Figure 4 - Injury Severity by Activity

It should be noted that the five fatalities associated with watchkeeping duties were related to the single tragedy involving MV Verity. Taking this into account, the most dangerous activities for seafarers were using portable tools and moving about the ship. All crewmembers should take care when moving about the ship, especially if they are focused on another task. The design and materials used for construction of most ships combined with surface movement means that the risk of injury during a slip or trip can be significant.

Portable tools should be maintained in a good condition and visually inspected before use. Seafarers should consider the risk associated with a specific portable tool before commencing work and always wear appropriate PPE to minimise the severity of an injury if it does occur.

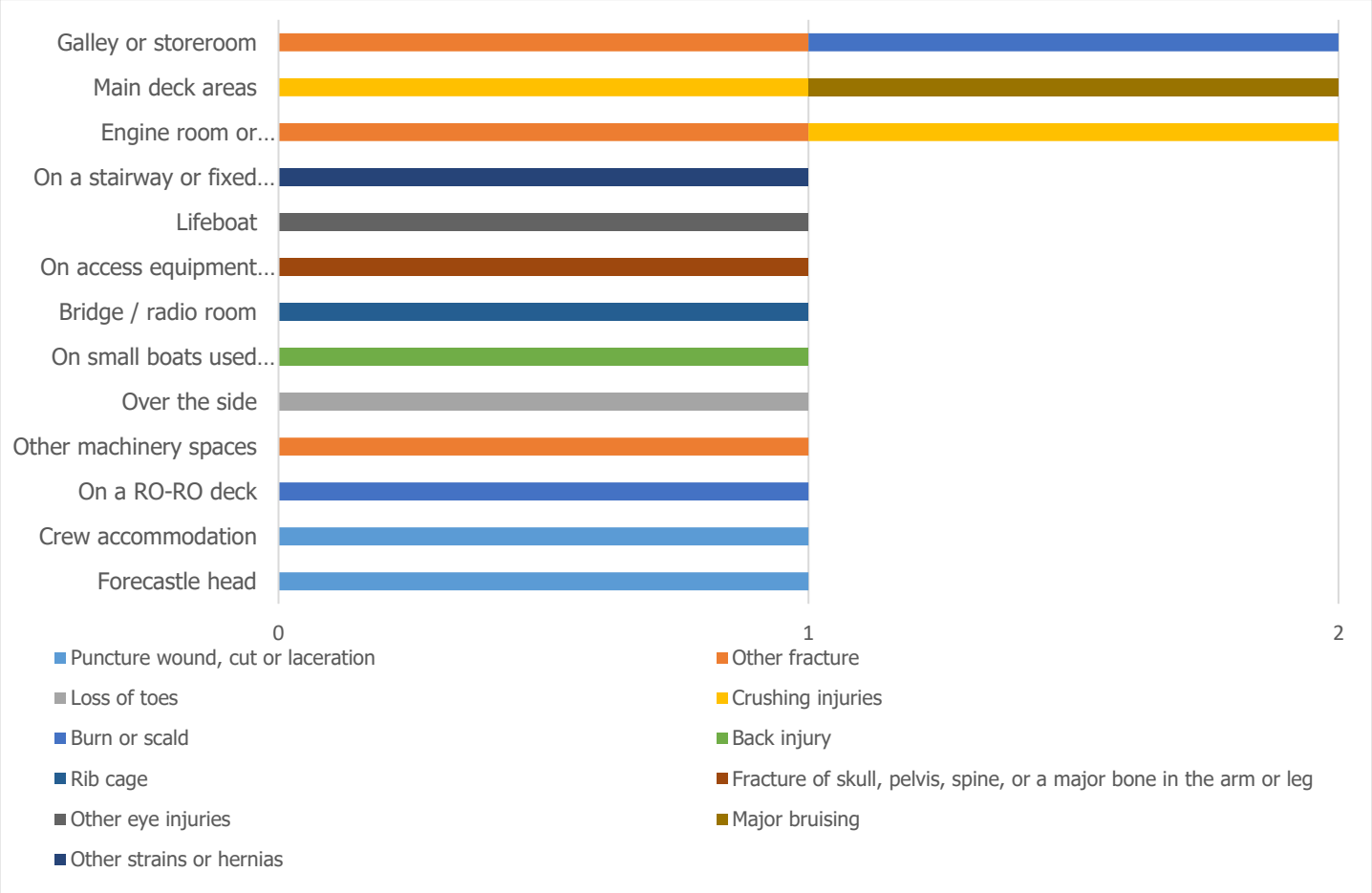

Figure 5 - Injury by Location about Ship

Consistent with the activities data, deck areas and the engine room carried the greatest risk of injury. The Galley also reported a higher number of incidents in 2023, care should be taken when moving around the Galley, the presence of hot surfaces, oil/grease and cooking appliances combined with the movement of the ship creates significant risk even for the simplest of cooking tasks when compared against similar operations ashore.

Chapter 6 Breakdown of Occurrences in 2023 by Cause

The following charts represent a breakdown of all the occurrences by the causal factor. Determination of the various causes follows an investigation into the occurrence by the ship's staff, company investigators or an external investigating body. It is important to remember that an occurrence may be the result of several factors across different categories.

Figure 7 below shows occurrence split by the causal factor categories.

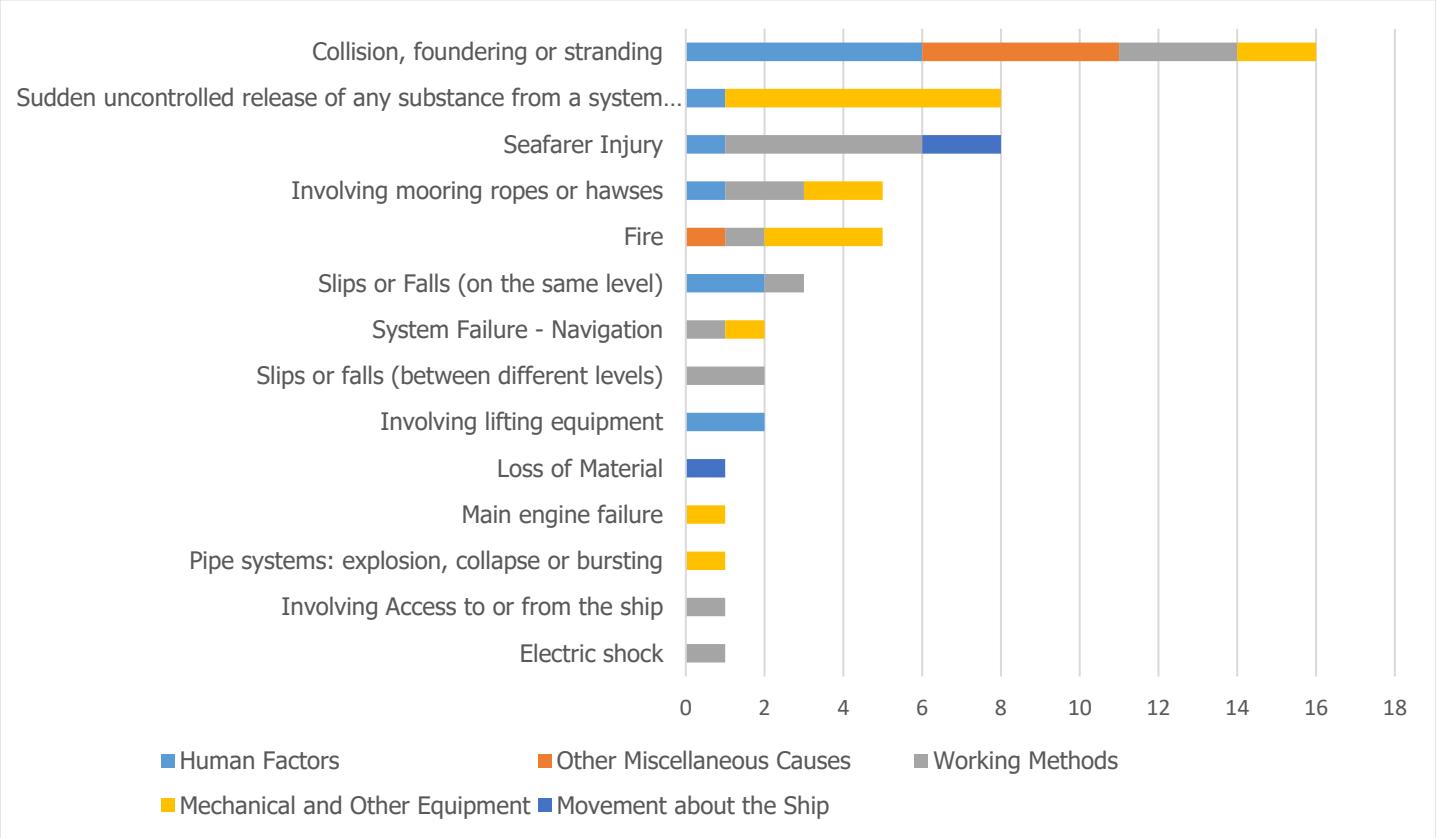

Figure 6 - Occurrence by Causal Factor

The most common causal factors were the working method used and mechanical related factors.

6.1 Occurrences by Working Method

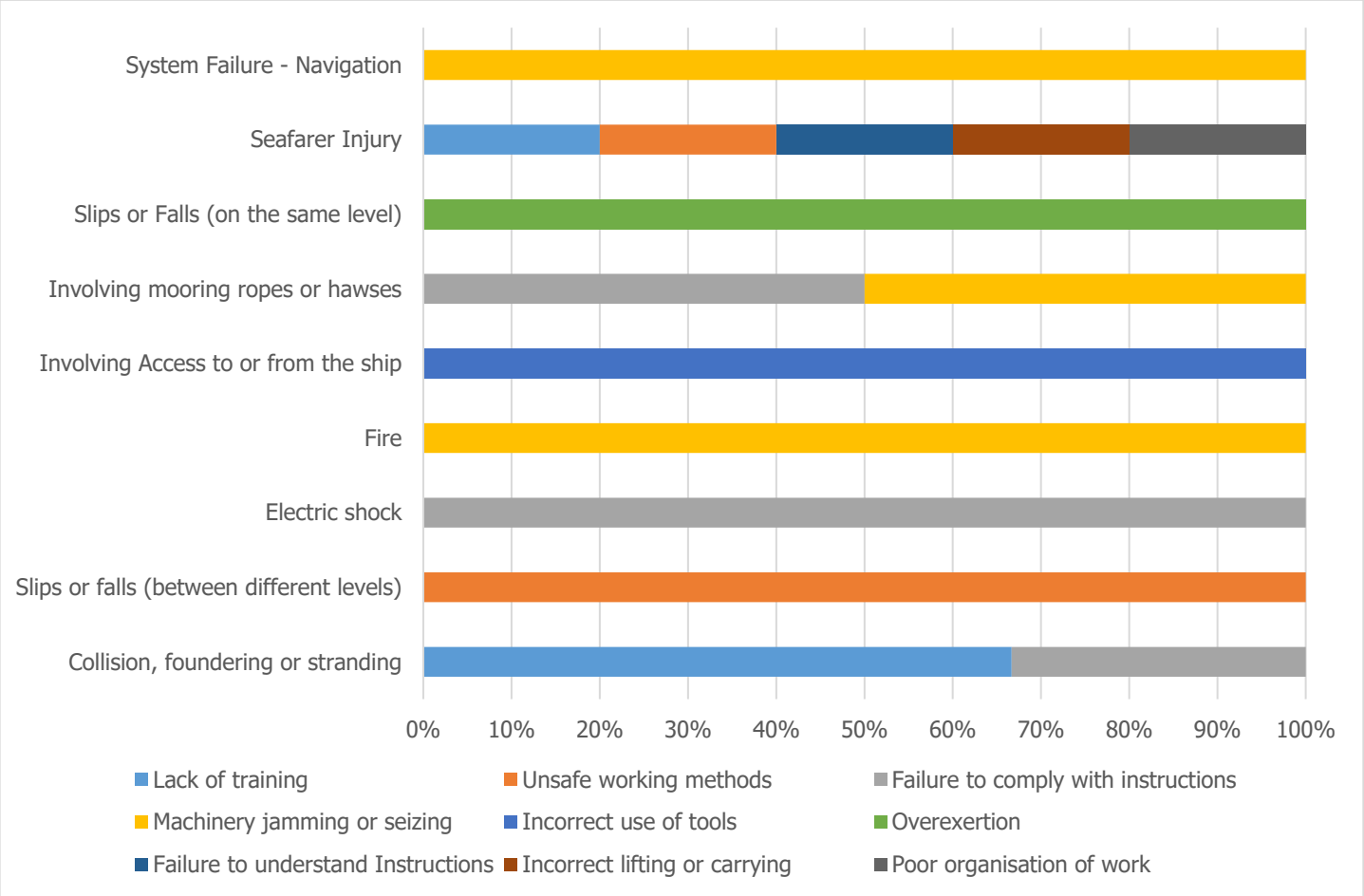

Figure 7 - Occurrences by Working Method

In 2023, the predominant working method causes were reported to be unsafe working methods, failure to comply with instructions and machinery jamming or seizing.

Seafarers should plan their work and safety precautions adequately and avoid taking shortcuts to get the job done more quickly. This highlights the importance of effective risk assessment. A seafarer should not feel they must put themselves in a dangerous situation to complete the job or to save a few minutes of time. Thorough toolbox talks should be held before every job to ensure each seafarer is aware of the risks involved in the job and the role that they must play in the job.

Continuous training, rigorous risk assessment and detailed procedures all contribute to a safety culture that helps reduce occurrences caused by unsafe working methods and failure to comply with instructions.

Machinery should be maintained according to the manufacturer's instructions, regularly inspected and cleaned/lubricated as required. Where all proper precautions are taken, the risk of a true machinery defect causing jamming or seizing is rare.

6.2 Occurrences by Movement about the Ship

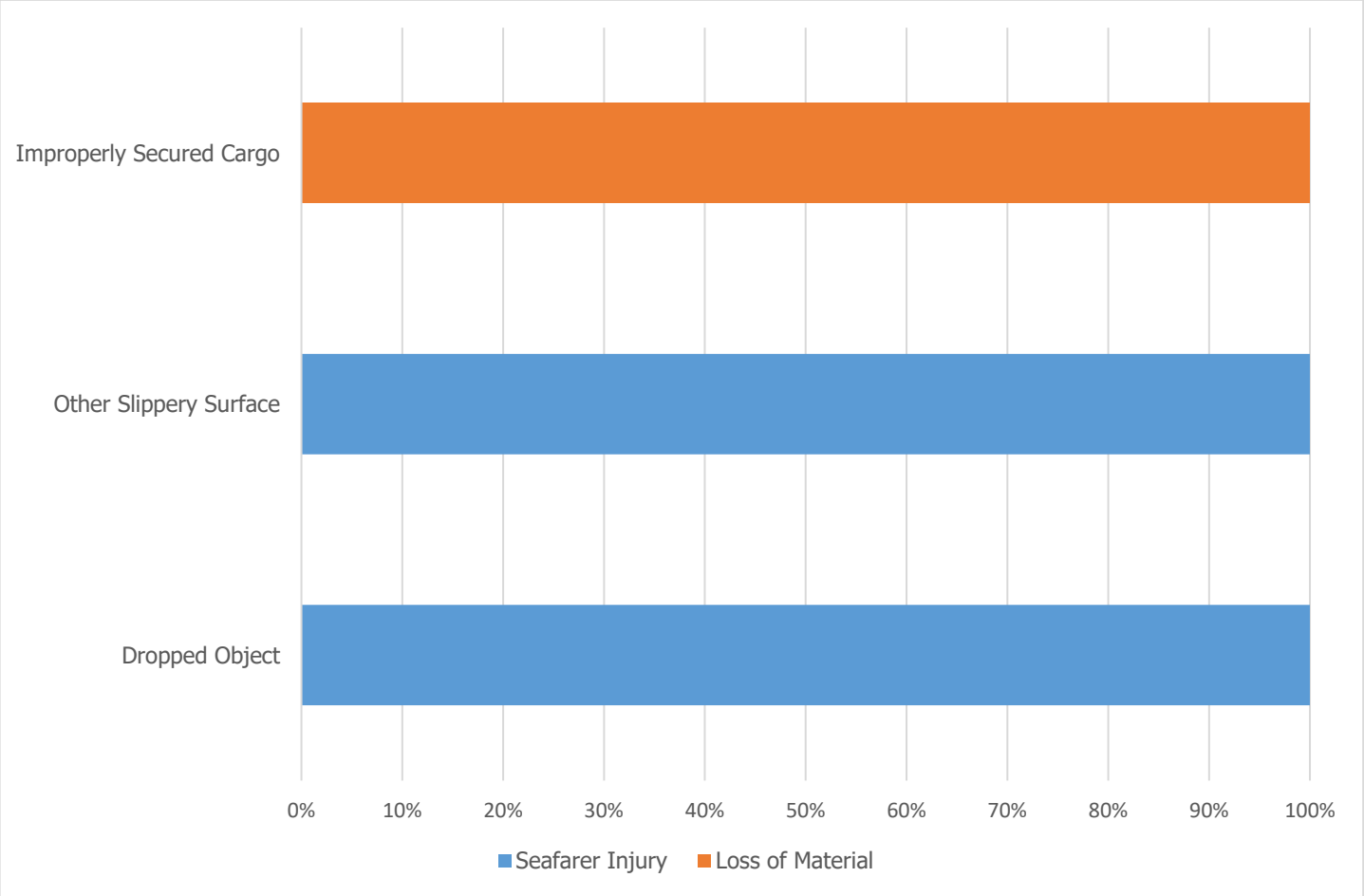

Figure 8 - Occurrences from Moving about the Ship

Seafarers should always remain aware of other jobs occurring in their vicinity when performing a task onboard, tools should be safely stowed when not in use, particularly when working at height.

Where appropriate, Masters should ensure that deck-working areas have non-slip surfaces. This can be achieved by either clearing/cleaning the deck, placing non-slip mats or use of non-slip paint mixes. Where cleaning or similar work is being performed, all products should be thoroughly washed off and signage or other means deployed to raise awareness to others of the risk until the area is completely dry.

6.3 Occurrences by Human Factor

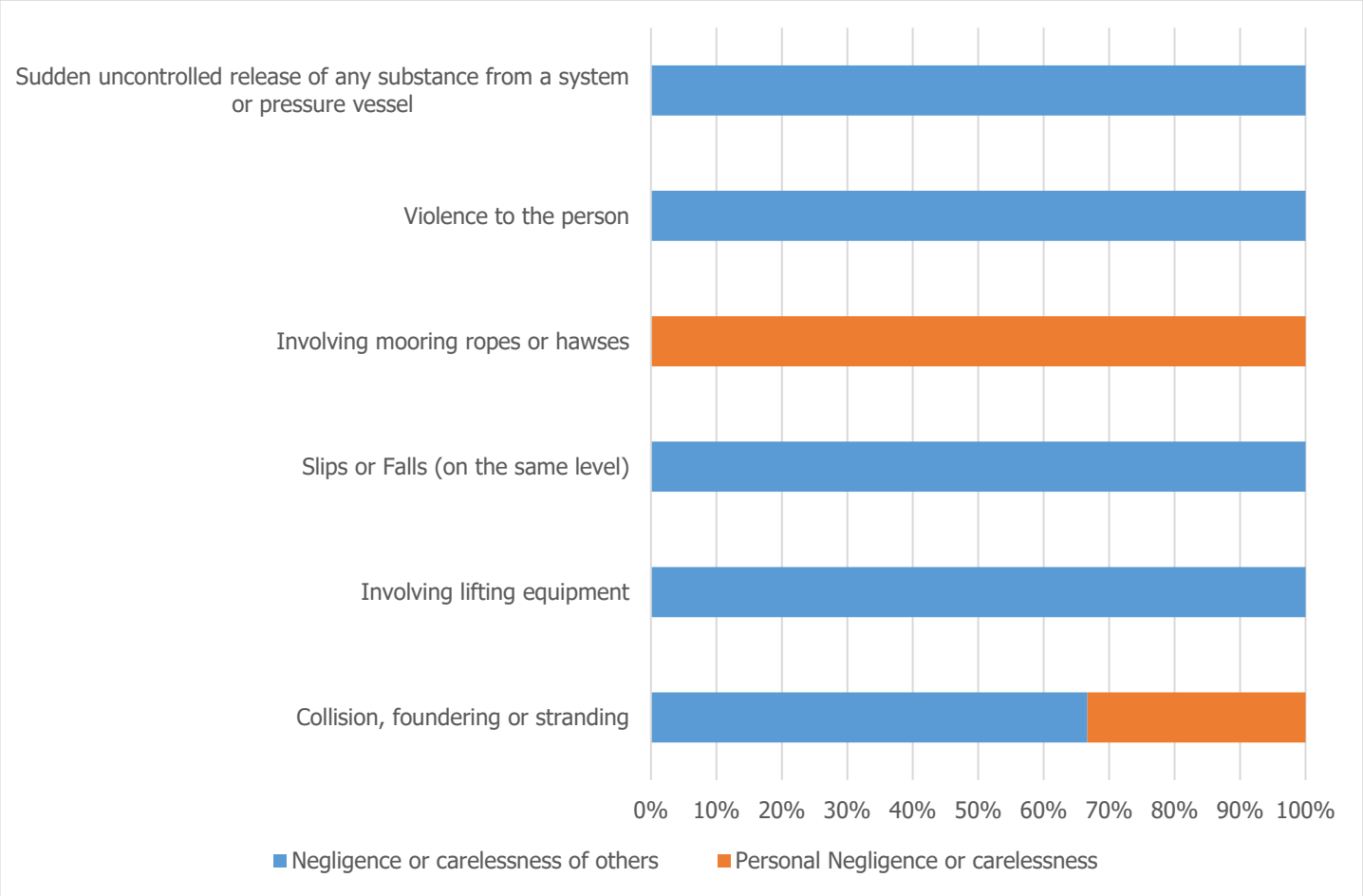

Figure 9 - Occurrences by Human Factor

By "human factor" we mean the act or omission of a person to do something that leads to the occurrence happening. It is rare that a particular occurrence can be attributed to direct malicious action by a crew member, rather, inadequate training, the temptation to cut corners on a job to try and save time and fatigue are far more prevalent reasons that the human element may factor into the reason for an occurrence happening. It is important that all crewmembers feel confident in completing the tasks assigned to them and under no time-pressure to cut corners and complete the job. Rest periods should be adequately managed onboard to ensure that seafarers do not accumulate fatigue and begin to suffer during performance of their tasks.

6.4 Occurrences by Mechanical & Other Equipment

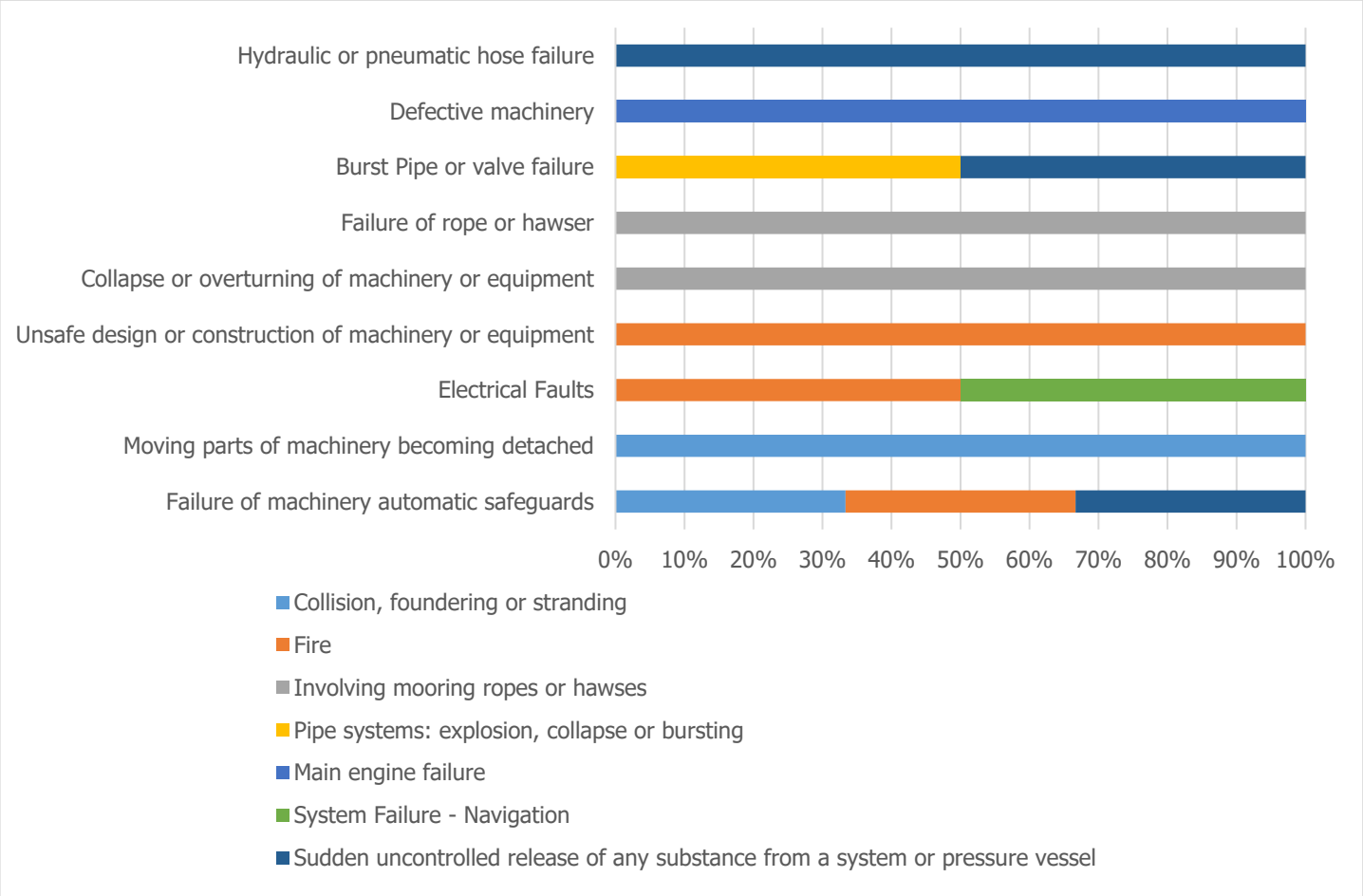

Figure 6 - Occurrences by Mechanical Factors

In 2023, the predominate cause of mechanical factors was hydraulic/pneumatic hose failure and failure of machinery automatic safeguards. Prior to commencement of any work, visual inspection of components is key, the manufacturers guidance for lifespan whilst generally applicable will not account for instances where damage or deterioration has accidentally occurred prior to the next job taking place. Where there is any doubt as to the suitability of a component it should be removed and replaced prior to the job taking place.

6.5 Occurrences by Other Miscellaneous Causes

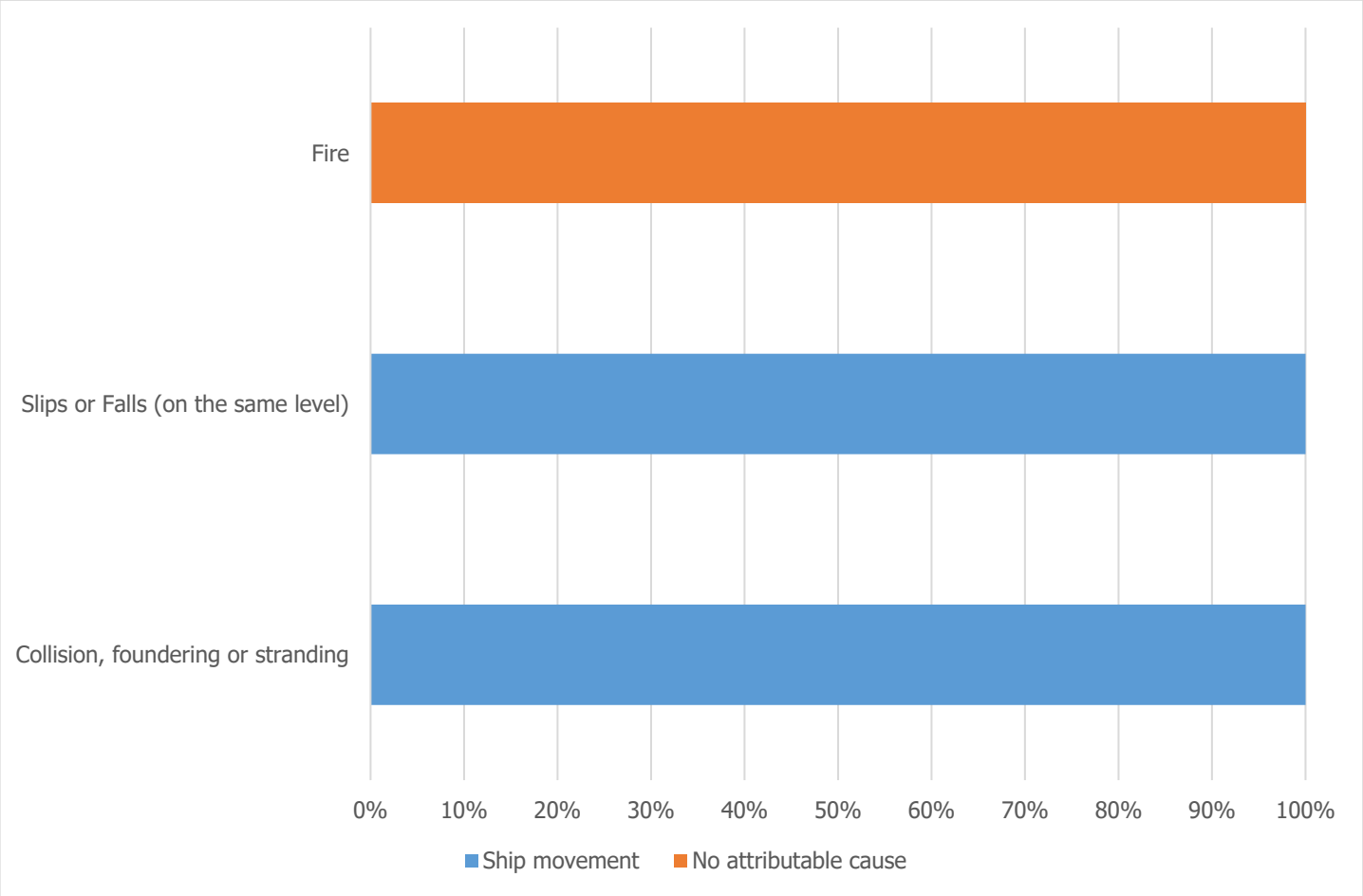

Figure 11 - Occurrences by Miscellaneous Causes

In 2023, the predominant 'other miscellaneous cause' was reported to be "ship movement". It is important to always remain aware of prevailing weather conditions and be prepared to react dynamically as a situation changes. Whilst at anchor, seafarers should be aware of other vessels within their vicinity and operate under the assumption that they may not be as aware of the weather conditions and be prepared to act accordingly.

Chapter 7 Conclusions

The most prevalent occurrences reported in 2023 were collision/allision, sudden uncontrolled release of substances from a system and seafarer injuries.

There were 5 fatalities, 3 serious injuries and 10 minor injuries to MLC seafarers reported in 2023 along with 2 serious injuries and 1 minor injury to non-MLC seafarers.

The most common serious injury were fractures. The most common minor injuries were crushing/pinch point injuries.

Using portable tools and moving about the ship resulted in the most severe injuries in 2023.

The ARFs received highlight the causes identified when occurrences happened. The most common causes identified for each ARF theme in 2023 were:

- Working method – Unsafe working methods, failure to comply with instructions and machinery jamming/seizing
- Mechanical and other equipment – Hydraulic/Pneumatic hose failure and failure of machinery automatic safeguards
- Human factor – Negligence or carelessness of others
- Other miscellaneous causes – Ship movement

- Movement about the ship – Dropped objects and slippery surfaces

A significant number of the reports received could have been prevented by putting in place effective controls ahead of the work such as thorough risk assessments and toolbox talks prior to the job commencing. Seafarers should not become complacent because a job has been done many times before, the risk is still present.

A common factor in several of the reports relates to machinery or associated equipment such as pipes or hoses failing, it is important for any vessel to have a rigorous preventative maintenance program in place and to ensure it is followed. All tools and equipment should be inspected prior to any job and the work stopped and risk reconsidered where any particular component is found to be subpar.

If you are in any doubt about the safety concerned with a particular work activity, stop and re-evaluate.

Additional Information

- Manx Shipping Notice 003 – Accident Reporting
- Maritime Labour Notice 4.3E
- Code of Safe Working Practices for Merchant Seafarers and Fishermen's Safety Guide published by the UK Maritime and Coastguard Agency
- Master's / Yacht Master's Handbook (available free on the IOMSR website)
- Merchant Shipping (Accident Reporting and Investigation) Regulations 2001 SD815/01 (available free on the IOMSR website)
- Isle of Man Ship Registry website
- Contacting the Isle of Man Ship Registry – email marine.survey@gov.im

The Isle of Man Ship Registry welcomes any feedback concerning this report. If you have any comments or suggestions for future reports please contact the Isle of Man Ship Registry at the email address above.

Appendix Summary of Select ARF Cases

Ship Type	Event Description
Other Cargo Ship	While removing a gasket during the investigation of a blocked W/C, the hand-tool (knife) used by the 2/E slipped causing a cut to the knuckle, below the index finger on his left hand. The 2/E was not using gloves at the time. The pipe containing the gasket had been removed from the workings of the W/C prior to the accident. Instead of taking the pipe to the E/R Workshop to remove the gasket, the 2/E attempted to remove it in situ, resulting in the injury.
Bulk Carrier	While vessel was enroute to Suez via the Mediterranean Sea, Wiper while closing the Engine room entrance door leading to the boiler platform on upper deck, sustained an injury on his right-hand thumb. Vessel was rolling ≈10° and whilst closing the watertight door, the wiper suffered a pinch point injury due to placing his right-hand thumb in door frame.
Commercial Yacht	Whilst underway from Chile to Panama, a fire was detected in the engine room at 12:20. 2/E located the fire, which was the centre generator, informed C/E and proceeded to extinguish using a foam extinguisher. The centre generator was shut down and isolated. The Master raised the alarm via radio and crew began to converge on the scene bringing extinguishers. Confirmation fire was extinguished was given a few minutes later by C/E. Clean up operation was carried out, engines revs reduced to maintain positive pressure to clear out smoke whilst analysis of cause and checks were conducted.
Gas Carrier	Fire on ME unit 6 exhaust lagging. Fumes were observed coming from Unit 4 & 5 exhaust lagging too. SF emergency shutdown was activated. The fire on ME unit 6 exhaust lagging was extinguished using fire extinguisher. Fire alarm and engineers call was sounded. ME Speed was reduced and ME was stopped.
Offshore / Standby	During renewal of the locking pins, IP was assisting with the removal. Due to wear and tear, the pins were hard to remove. A 6.8kg sledgehammer was used for the removal but unsuccessfully. IP attempt to wiggle the locking pins by hand and Chief Engineer then simultaneously hit the pin with the sledgehammer. At 07:20 during this attempt, IP unintentionally moved his hand in the line of fire, resulting in trauma on middle and ring finger.
Offshore / Standby	The IP was in foam room removing a small yellow drain hose from the foam line. The IP opened the door to the fan room to hang the yellow hose back on the hook with his right hand while holding fan room door with his left hand. The IP left hand slipped in between the door and door frame while hanging hose on hook, causing door to shut on the tip of his left-hand index finger.
Gas Carrier	At 0722 a squall started to build up with wind speeds up to 22 knots and resulted in the anchor cable stretching within the vessels turning circle. The vessel stretched the anchor cable and its stern ended up having minor contact damage with the stern of other cargo vessel at 0736 hrs. Vessel then proceeded to heave up stbd anchor and drop stbd anchor at a safe distance from other cargo vessel. No crew was hurt and no pollution occurred during and after the accident.
Bulk Carrier	Vessel was Planned to take bunker (LSMGO) at Kwangyang, S.Korea. The bunker barge crew made the connection of the flange onboard. As soon as the bunker transfer started, oil sprayed out from the flange and the alert crew immediately raised alarm & stopped bunkering. Oil was contained onboard and immediately collected onboard, however at this time it was raining heavily, some traces of oil escaped and caused a sheen on the water at the aft part of vessel. Master immediately notified the local authorities and vessels P&I.
Passenger Ship	On completion of transferring waste VLSFO from Bunker tank to Sludge tanker - Motorman was disconnecting the hose upon completion of the transfer. Unknown to the motorman, the assisting party was holding the flexible hose off the deck. This created a small pressure head, resulting in a small amount of VLSFO being released onto

	motorman's left leg. The VLSFO rapidly soaked through his boiler suit causing a burn to the left leg.
Passenger Ship	Soup pot was being carried in the galley, it was caught on the storm bar around the deep fat fryer. This then split onto cook's forearm causing the burn. Fully Galley PPE was being worn at the time.
Offshore / Standby	IP was performing maintenance on the RO plant in Engine Room. In the process, he lost his footing and when he slipped down his left knee contacted the deck. He felt an acute pain but did not report it until the swelling appeared. Medic attended to IP, assessed injury and administered medical treatment. Due to injury, Medic requested that IP be transferred to Hospital onshore by Ambulance for further assessment.
Other Cargo Ship	Transit along Escravos river, HRA transit. While under pilotage and overtaking a vessel (local barge "name unknown") on her Starboard side the barge altered course to starboard and made contact with the vessels port side. The barge did not respond to any horns from the vessel or other communication attempts prior to or after the incident. Even the pilot could not get hold of this vessel. Due to constraints of the narrow river the vessel could not alter course to avoid any collision. Collision made by third party vessel to the Port side of our vessel.
Pleasure Yacht	A single deckhand was trying to raise the anchor alone, at the request of the captain, the chain built up in the chain locker and became rigid, the spurling pipe was bent and the retaining bolts sheared off.
Oil/Chemical Tanker	Ballast tank lids are mostly slippery and must be approached with special caution. When ballast tank lid was lifted it slid and slammed 2/O hand causing severe pain. 2/O moved away and sat when he lost consciousness for few seconds. 2/O supervised tank entry including shifting ballast tank lids. During shifting, 5P BT lid slid and slammed on his left hand (middle finger) causing severe pain. He felt dizziness straight after that and moved away from the tank hatch to sit down. When 2/O sat down he lost consciousness for few seconds. It was observed by LR Surveyor attending the vessel. A few seconds after C/O and 3O helped 2/O to walk into accommodation.
Oil/Chemical Tanker	Vessel was at anchor in Martinique, Fort-De-France, French Caribbean Island. The service boat was ordered to collect off-signing Technical Director from the vessel to shore. As the pilot boat was alongside there were moments of heavy pitching to the swell but also moments of relative steadiness making disembarkment by pilot ladder possible if care was taken. Off-signer began descent down ladder and stops at a height safely above any movement of the pilot boat. He was looking down assessing the movement of the pilot boat. At this point the boatman took hold of the back of this lifejacket. Off-signer repeatedly told him to let go. Several members of the deck party, also shouted to the boatman to let go of the lifejacket which he eventually did. The pilot boat appeared to settle and at this point the boatman took hold of Off-signers lifejacket again and pulled him backwards trying to prompt him to step off. Boat crew was acting very impatient as soon after they had to take the Pilot to another ship. This may have been a contributory factor in the boat's crew decision to pull Off-signer off the ladder by his lifejacket, without verbal warning or permission. He jerked backwards and caused Off-signer's right leg to slip off the pilot ladder step, in-between the ladder and pilot boat. At the same time to boat moved against the side of the ship causing his right leg to be crushed between the boat and pilot ladder. C/O immediately shouted to the boat to pull away from the side of the ship. His leg was between the pilot boat and the ladder step for two to three seconds. At some point his left leg also came loose from the pilot ladder and he was hanging on by both arms at full stretch. It took the pilot boat eight seconds to fully move away from the side of the ship.

	Off-signer managed to regain footing with his left leg and gradually hobbled and pulled himself back up the pilot ladder onboard in significant pain.
Oil/Chemical Tanker	During routine weekly LSA/FFE inspection the 2/O observed reducing pressure of lifeboats air cylinders caused by decreasing outside air temperature. After everyday monitoring he made decision to refill cylinders. The 2/O acted according to instruction and proceeded with refilling the cylinders at Port Lifeboat under 3/E supervision; after connecting the supply hose with the cylinders charging point, 2/O started the compressor remotely by UHF with 3/O assistance and pressure in the hose start increasing. At that moment, the coupling of supply hose broke away from the cylinder and kicked the 2/O in right eye, causing wound of nose, superior eyelid and bruise of eyeball. OOW was informed immediately. Master, C/O and Medical officer came down for assistance.
Other Cargo Ship	Vessel involved in collision with other vessel, approximate position 12nm southwest of Helgoland, German Bight, at approximately 0500hrs LT. Vessel subsequently capsized.
Passenger Ship	During the retrieval of the mooring lines, the headline from the port aft winch was being retrieved. The eye was now on deck and passing through the "old man" on stbd side. At this point the AB was caught by the rope and fell backwards.