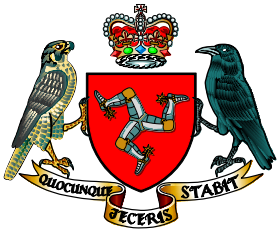
Isle of Man Ship Registry

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

2018

Isle of Man Government
Department for Enterprise



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Published June 2019

Introduction

The Isle of Man Ship Registry (IOMSR) is committed to helping seafarers, managers, owners and operators concerned with all Manx ships in achieving continued high standards of safety and pollution prevention. Occasionally things go wrong, when they do the master, skipper or technical manager is required by law (**Merchant Shipping Accident Reporting and Investigation Regulations**) to notify IOMSR concerning what has occurred.

Also, for ships to which the **Maritime Labour Convention (MLC)** applies MLC Standard A4.3.5 requires:

> *(a) Occupational accidents, injuries and diseases are adequately reported, taking into account the guidance provided by the International Labour Organization with respect to the reporting and recording of occupational accidents and diseases;*
>
> *(b) Comprehensive statistics of such accidents and diseases are kept, analysed and published, and where appropriate, followed up by research into general trends and into the hazards identified; and*
>
> *(c) Occupational accidents are investigated.*

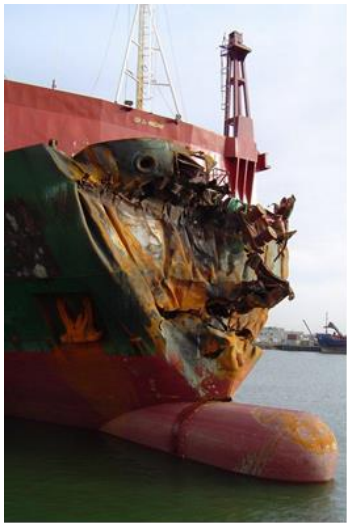
The notification and reporting scheme is reliant upon masters, skippers or operators reporting '**occurrences**' as accurately and in as timely a manner as possible in accordance with the regulations. From these reports we can alert the shipping industry about areas and activities where any additional safety controls may be necessary and hopefully prevent similar occurrences from happening again.

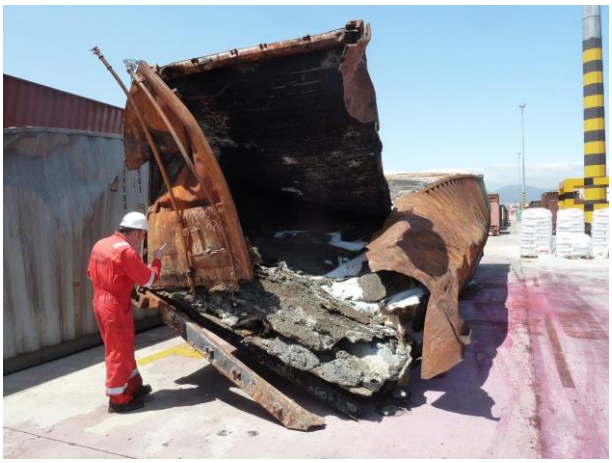
This report aims to provide statistics based on the reporting scheme's findings. Where any trends are identified the Isle of Man Ship Registry aims to work closely with shipping companies and other organisations in an effort to reduce these occurrences on board Isle of Man ships.

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

To submit a report or if you have any questions please contact:
Isle of Man Ship Registry, Department for Enterprise,
St George's Court, Upper Church Street, Douglas, IM1 1EX, Isle of Man, British Isles

Tel +44 1624 688500 Fax +44 1624 688501 Email: marine.survey@gov.im





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Contents

Chapter 1 – What is an occurrence?

An 'occurrence' is either a **casualty**, **accident** or an **incident** in the Merchant Shipping Accident Reporting and Investigation Regulations (SD815/01). These are defined as follows:-

Casualty

This means "any contingency which results in:-

(a) loss of life or major injury to any person on board, or the loss of any person from, a ship or a ship's boat;
(b) the loss or presumed loss of any ship or the abandonment of any ship or a ship suffers material damage;
(c) a ship goes aground, is disabled or is in collision;
(d) any loss of life or major injury, or serious harm to the environment, is caused by a ship;
(e) any major damage to the environment brought about by damage to a ship and caused by, or in connection with, the operation of the ship."

Accident

This means "any occurrence of the following type provided that it caused material damage to any ship or structure, or damage to the health of any person, or serious injury:-

(a) the fall of any person overboard;
(b) any fire or explosion resulting in material damage to a ship;
(c) the collapse or bursting of any pressure vessel, pipeline or valve or the accidental ignition of anything in a pipeline;
(d) the collapse or failure of any lifting equipment, access equipment, hatch cover, staging or bosun's chair or any associated load-bearing parts;
(e) the uncontrolled release or escape of any harmful substance or agent;
(f) any collapse of cargo, unintended movement of cargo sufficient to cause a list, or loss of cargo overboard;
(g) any snagging of fishing gear which results in the vessel heeling to a dangerous angle; or
(h) any contact by a person with loose asbestos fibre except when full protective clothing is worn."

Incident

This means "any occurrence, not being a casualty or an accident as a consequence of which the safety of a ship or any person is imperilled, or as a result of which material damage to any ship or structure or damage to the environment might be caused."

Incidents can also be referred to as 'near misses' or 'near accidents'. Vessel inspections by the IOMSR have shown that the type of incidents reported to technical managers range from 'minor incidents', e.g. a person forgetting to wear a safety helmet on deck, to 'major incidents', e.g. narrowly avoiding a swung load suspended from a lifting appliance. The IOMSR encourages the master, skipper or technical managers to use their judgement in determining a 'minor incident' and a 'major incident'. All 'major incidents' should be reported to the IOMSR using the ARF Form. For the remainder the master, skipper or technical manager should use their professional judgement.

If there is any doubt then report to Isle of Man Ship Registry.

IMO Classification

The International Maritime Organisation (IMO) Casualty Investigation Code (IMO Resolution MSC 255(84)) defines occurrences as a Marine Incident, Marine Casualty or Very Serious Marine Casualty. Refer to Chapter 6 of this report for information concerning cases reported to IOMSR classified as per the IMO Casualty Investigation Code.

Chapter2 – Reporting occurrences

2.1 Who has to Report?

Under the regulations the master, skipper or technical manager of any Manx registered vessel wherever they may be and the master, skipper or technical manager of any foreign flagged vessel in Manx territorial waters.

A vessel means any description of watercraft ranging from pleasure vessels, fishing boats, commercial yachts, passenger ships and cargo vessels.

Occurrences on board ships in ports, with the exception of those involving stevedores or shore-based workers, are included and must be reported. Occurrences involving shore-based workers should also be reported to the country's Health and Safety Department or equivalent body.

2.2 When to report

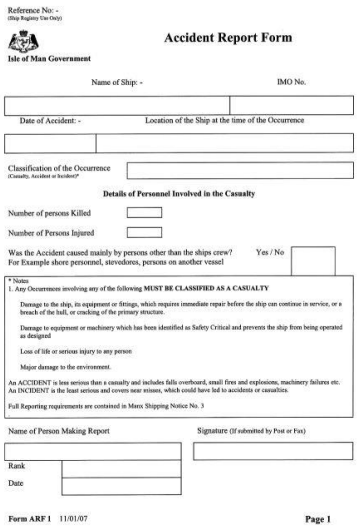
When a **CASUALTY** occurs the master, skipper or technical manager must inform the IOMSR as soon as possible after becoming aware of the casualty. The Master or Skipper must send a report to the IOMSR as soon as is practicable by the quickest means available.

When any **ACCIDENT** occurs the master, skipper or technical manager must inform the IOMSR as soon as is practicable and by the quickest means available. A report must be sent to the IOMSR no later than within 24 hours of the vessel's next arrival in port.

When an **INCIDENT** occurs the master, skipper or technical manager must report the incident to the IOMSR before the vessel departs from the next port.

2.3 How to report

Initial reports can be made directly by telephone, fax or email to the IOMSR. When the occurrence has been investigated on board the master, skipper or operator should complete the Accident Report Form (ARF – see right) and forward it to the IOMSR by fax, email or mail. Any additional report forms used on board to document the occurrence may also be submitted to the IOMSR along with the completed ARF. It is recommended that a copy of the ARF is kept on board as a record.



Reference No: -
(Ship Registry Use Only)

Accident Report Form

Isle of Man Government

Name of Ship: - IMO No.

Date of Accident: - Location of the Ship at the time of the Occurrence

Classification of the Occurrence
(Casualty, Accident or Incident)*

Details of Personnel Involved in the Casualty

Number of persons Killed

Number of Persons Injured

Was the Accident caused mainly by persons other than the ships crew? Yes / No
For Example shore personnel, stevedores, persons on another vessel

* Notes
1. Any Occurrences involving any of the following **MUST BE CLASSIFIED AS A CASUALTY**

Damage to the ship, its equipment or fittings, which requires immediate repair before the ship can continue in service, or a breach of the hull, or cracking of the primary structure.

Damage to equipment or machinery which has been identified as Safety Critical and prevents the ship from being operated as designed

Loss of life or serious injury to any person

Major damage to the environment.

An ACCIDENT is less serious than a casualty and includes falls overboard, small fires and explosions, machinery failures etc. An INCIDENT is the least serious and covers near misses, which could have led to accidents or casualties.

Full Reporting requirements are contained in Manx Shipping Notice No. 3

Name of Person Making Report Signature (If submitted by Post or Fax)

Rank

Date

Form ARF 1 11/01/07 Page 1

The ARF is available on request from the IOMSR or available for download from the IOMSR website.
http://www.iomshipregistry.com/formsdocs/forms/

A brief statement is also required in the Official Log Book Narrative Section.

All reports received that are "Very Serious Marine Casualties" as defined by the IMO Casualty Code (refer to Chapter 6) are investigated. For all other reports received a decision is made whether or not an investigation is warranted.

Not all occurrences are investigated by IOMSR, this may be because:-

- it has been agreed that investigation is being conducted by another investigation authority; or
- the shipboard staff and/or technical managers have completed a thorough investigation and the underlying cause is clear.

Investigations are carried out in accordance with the Isle of Man Accident Reporting and Investigation Regulations, SOLAS ChI Reg 21 and the IMO Casualty Investigation Code. It is not the intention of these reports to apportion blame or economic liability.

The initial part of an investigation seeks to establish the causes and circumstances of what has happened, with a view to deciding whether or not a further investigation is warranted. Whenever an occurrence is investigated a report is made. A provision is made for any person likely to be affected by a report to see the draft and comment on the facts and analysis therein before it is finalised. Sometimes due to the circumstances surrounding the investigation it is not always possible to publish the reports.

Published reports are primarily for the benefit of all seafarers, managers and owners concerned with Manx vessels in the hope that lessons learnt may prevent similar occurrences from happening again. The names, addresses and any other details of anyone who has given evidence to an investigator are not disclosed unless a court of law determines otherwise. Any reports published are available on the IOMSR website.

2.4 ISM Code Vessels

Where vessels comply with the International Safety Management (ISM) Code the Safety Management Manual should include procedures for ensuring accidents and hazardous situations are reported (ISM9.1). The IOMSR will accept the vessel's reporting form in lieu of the ARF provided it contains at least all of the information required by the ARF.

If vessels have a safety officer on board as required by the Merchant Shipping Safety Officials, General Duties & Protective Equipment Regulations (SD816/01) then the safety officer should be involved in the investigation on board.

2.5 Investigations by IOMSR in 2018

Type of Ship	Nature of Investigation
Commercial yacht	Grounding
Fishing vessel	Fire
Passenger ship	Oil spill

2.6 Reports Published in 2018

Ship	Type of Ship	Nature of Investigation
Cheshire	Bulk carrier	Ammonium Nitrate Fertiliser Cargo Decomposition (2017)
BW Maple	Gas carrier	Collision (2017)
Endeavour and Our lads	Fishing vessels	Dangerous Manoeuvring (2017)

Casualty investigation reports are published on the Isle of Man Ship Registry Website.
https://www.iomshipregistry.com/forms-reports/casualty-reports/

2.7 Investigations by external investigation body on Isle of Man vessels in 2018

- None

Chapter 3 – ARF Reports Received in 2018

3.1 Reports from Isle of Man Registered Ships

In 2018 IOMSR received a total of 76 ARF reports from Isle of Man registered ships. The table below shows the number of reported occurrences by type in 2018 and the preceding 4 years including a breakdown per ship type for 2018.

Description of Occurrence by Type per Year						2018										
Year	2014	2015	2016	2017	2018	Passenger	Oil Tanker	Chemical Tanker	Gas Carrier	Bulk Carrier	Offshore / Standby	Other cargo Vessel	Commercial Yacht	Pleasure Vessel	Fishing Vessel	Total
Casualties	23	36	31	30	21											
Accidents	32	27	12	23	16											
Incidents	21	22	28	28	39											
	76	85	71	81	76	5	16	0	8	10	7	9	20	0	1	76
Collision/Allision - significant damage, foundering, stranding	6	9	9	7	5		1		1			2	1			1
Collision/Allision, touch sea bottom - no/minor damage	19	8	10	16	12	1	1		3	1	1	2	3			1
Fire	7	11	6	9	6	1	1						3		1	1
Explosion			1													
Pressure vessel: explosion, collapse or bursting			1													
Pipe systems: explosion collapse or bursting	1	1		2												
Sudden uncontrolled release of any substance from a system or pressure vessel	7	6	5	12	10	2	2				5	1				1
Accidental ignition of flammable material		1			3				1	1			1			1
Electrical short circuit or overload	2	1		3												
Failure of any lifting device	1	1		2	2		1						1			1
Failure of any access equipment	1		1													
Involving access to or from the ship			1	2												
Slips or falls (same level)	7	9	8	5	6		3			1		1	1			2
Slips or falls (different levels)	5	5	4	2	3		1						2			2
Involving mooring ropes or hawses	6	1	2	3	1					1						
Involving lifting equipment	1	4	3	4	3				1		1		1			1
Exposure to hazardous or toxic substances				1	1					1						
Man overboard		1	1													
Electric shock	1	1	2	1												
Violence to the person			1													
Other	1															
Closing doors or hatches			2		1							1				1
Moving about - no fall, no handling		2	3	1	4		2					1	1			2
Moving about - manual handling	2	2	2	1	1					1			1			1
Involving rescue boat/lifeboat/liferaft																
Drill - other than survival craft		2														
Cargo securing failure	1		1	2												
Maintenance - machinery	1	10	2	3	4		3		1							
Maintenance - other	3	4	1		4		1			1	1	1	1			1
Cargo hold cleaning		1														
Navigation - COLREG infringement	1				1								1			1
Navigation - machinery/equipment failure	1	4	2	3	5	1			1	2			1			1
Navigation - other		1			2					1			1			1
Illness																
Bunker operations																
Cargo operations			1	1												
Galley operations	1				1								1			1
Mooring/anchoring operations			1													
Unauthorised boarding																
Leisure activity on board/in sea	1		1	1	1								1			1
Total	76	85	71	81	76	5	16	0	8	10	7	9	20	0	1	76

The table below represents a breakdown of **cases** per ship type reported to IOMSR in 2018.

Type of Vessel	Total	Casualty	Acc.	Inc.	Death	Serious Inj	Minor Inj
Passenger	**5**	0	3	2	0	0	0
Oil	**16**	7	3	6	0	6	4
Chemical	**0**	0	0	0	0	0	0
Gas	**8**	2	1	5	0	1	1
Bulk	**10**	4	0	6	0	3	2
Offshore/Standby	**7**	1	5	1	0	1	0
Other cargo Vessel	**9**	4	1	4	0	2	3
Commercial Yacht	**20**	2	3	15	0	0	7
Pleasure Vessel	**0**	0	0	0	0	0	0
Fishing Vessel	**1**	1	0	0	0	0	0
Cases:	**76**	**21**	**16**	**39**	**0**	**13**	**17**

Nb. More than one injury may have occurred in the same case. See Chapter 5 for information concerning seafarer injuries.

In this report a "***serious injury***" means an injury which is 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 which is not a serious injury.

Death or injury from natural causes or suicide is not counted in this report unless they are directly related to an occurrence.

Injuries to passengers, guests or visitors are not counted with seafarer statistics but will be stated in Chapter 5.2 and the report's narrative in Chapters 7, 8 or 9 where relevant.

3.2 Reports from Foreign Flagged Ships in Isle of Man Territorial Waters

- none

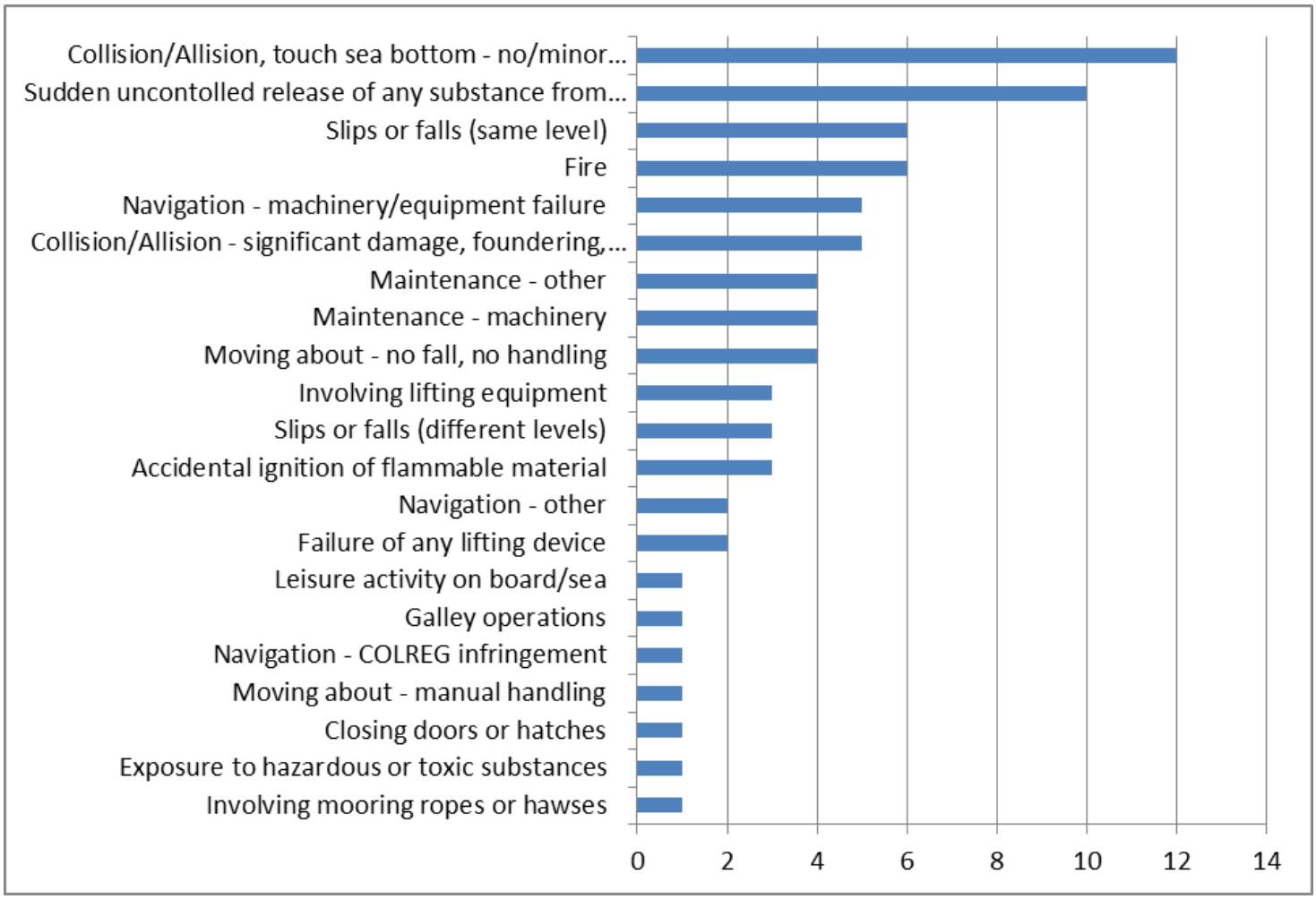
Chapter 4 – Analysis of ARF Reports Received in 2018

The table below summarises the condition the vessels were in at the time of the occurrence.

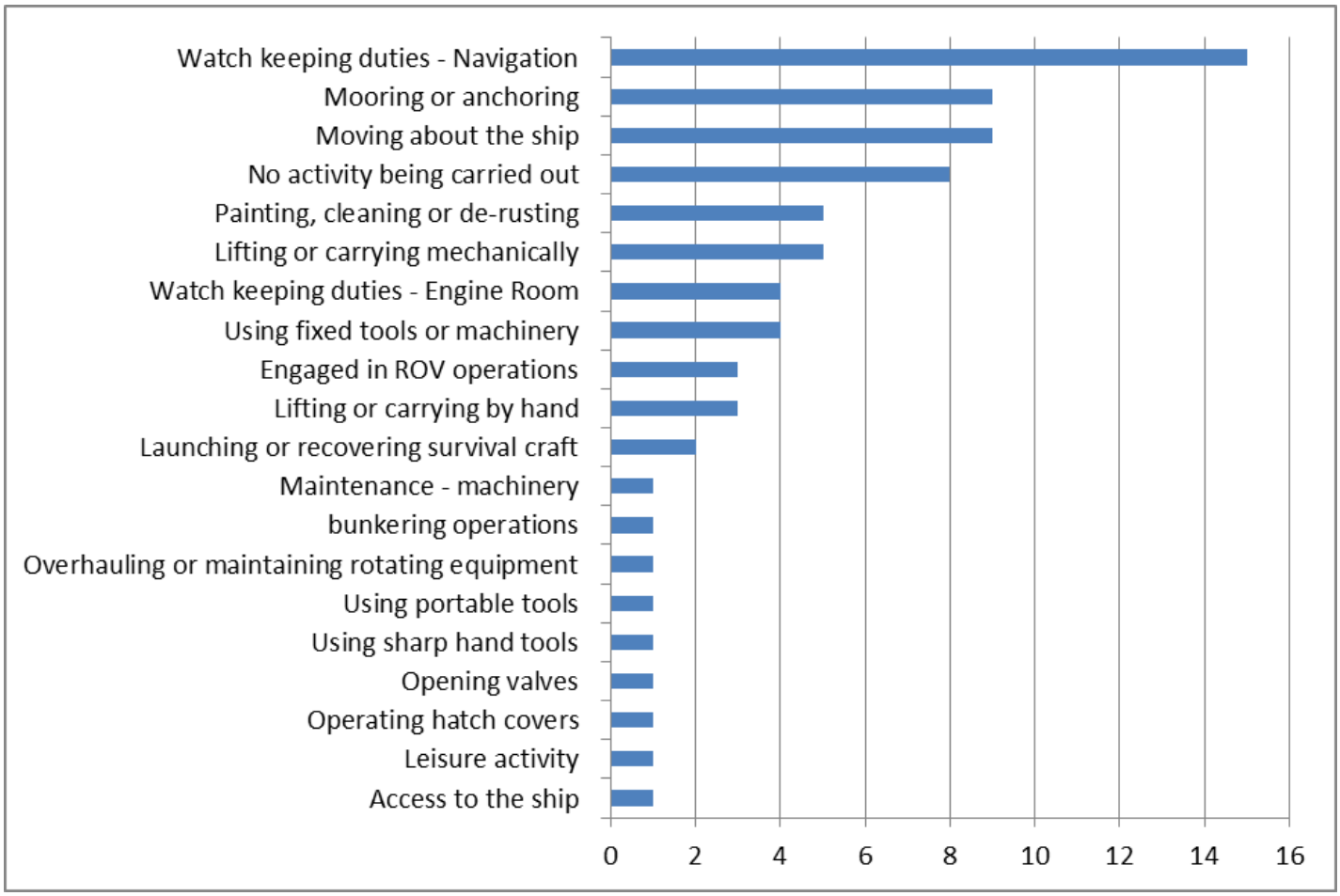
	Total Occurences			Cases involving		
	Cas	Acc	Inc	Death	Serious Injury	Minor Injury
Berthed/Docked	7	5	8	0	5	7
At Anchor/Anchoring/Weighing Anchor	2	2	9	0	2	4
Mooring/Unmooring	1	0	1	0	0	0
Making Way in Port/Confined Waters	5	1	9	0	1	0
Making Way Open Sea	6	3	11	0	5	6
Stopped - Drifting/DP	0	5	1	0	0	0
Total	**21**	**16**	**39**	**0**	**13**	**17**

In some cases more than one person may have been injured in the same case. Where a case involves deaths and injuries, this is counted once under a death case.

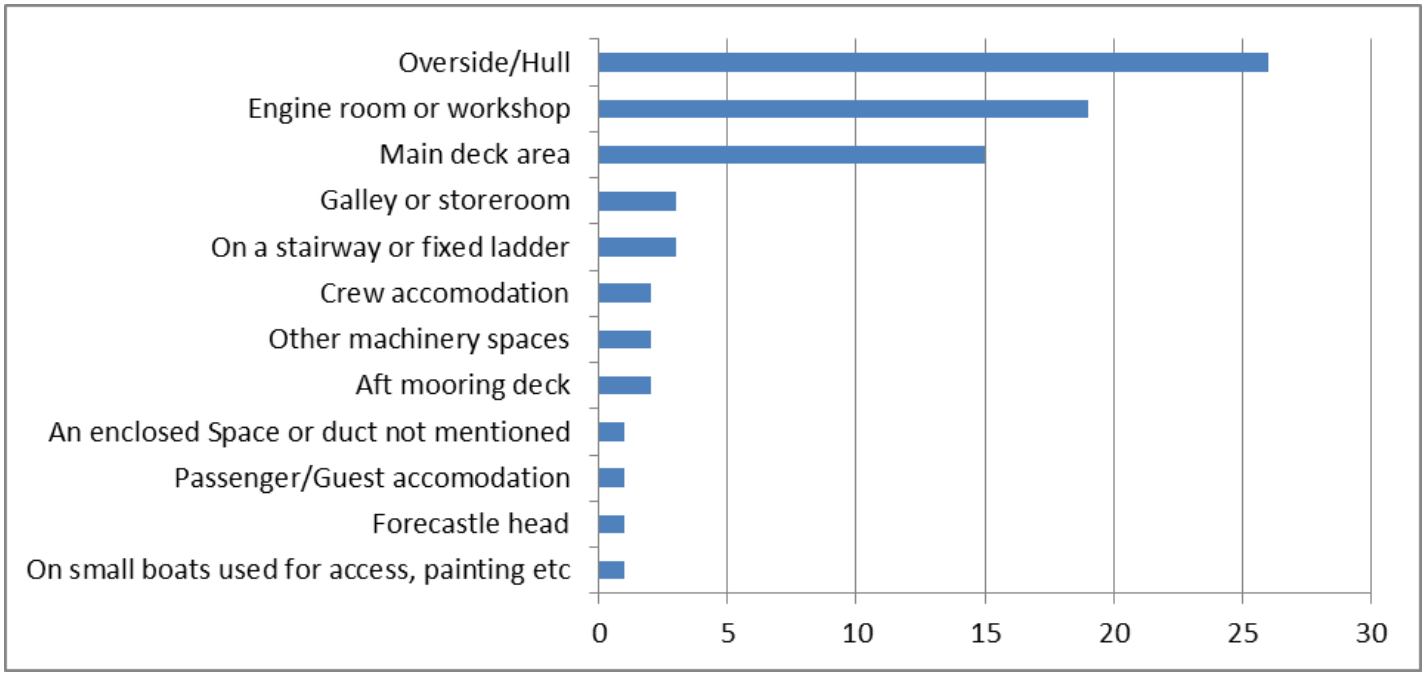
4.1 Type of Occurrences



4.2 Occurrence by Activity



4.3 Place of All Occurrences



Chapter 5 – Reported Seafarer Injuries

5.1 Seafarer Injury Summary

	All Ships		MLC Ships		Non-MLC Ships	
No. of Seafarers	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**
Fleet estimate	12842		9675		3167	
Deaths	0	0	0	0	0	0
Serious injuries	14	109	14	145	0	0
Minor injuries	15	117	15	155	0	0

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. Seafarer does not include passengers, yacht guests or visitors to the ship.

5.2 Number of Injuries and Deaths Reported per person

Seafarers injuries were reported as follows*;

MLC Seafarer:	**Total**	**Min. Inj.**	**Ser. Inj.**	**Death**
Master/Skipper	0	0	0	0
Ch. Off	0	0	0	0
OOW Navigation	1	1	0	0
Ch. Engineer	1	1	0	0
2nd Engineer	1	0	1	0
OOW Engineer	6	2	4	0
ETO / Electrician	0	0	0	0
Deck / Dual Rating	10	4	6	0
Engine Rating	4	2	2	0
Deck / Eng. Cadet	1	1	0	0
Cook / Steward / Purser	4	4	0	0
Other Seafarer	0	0	0	0
Total	**28**	**15**	**13**	**0**

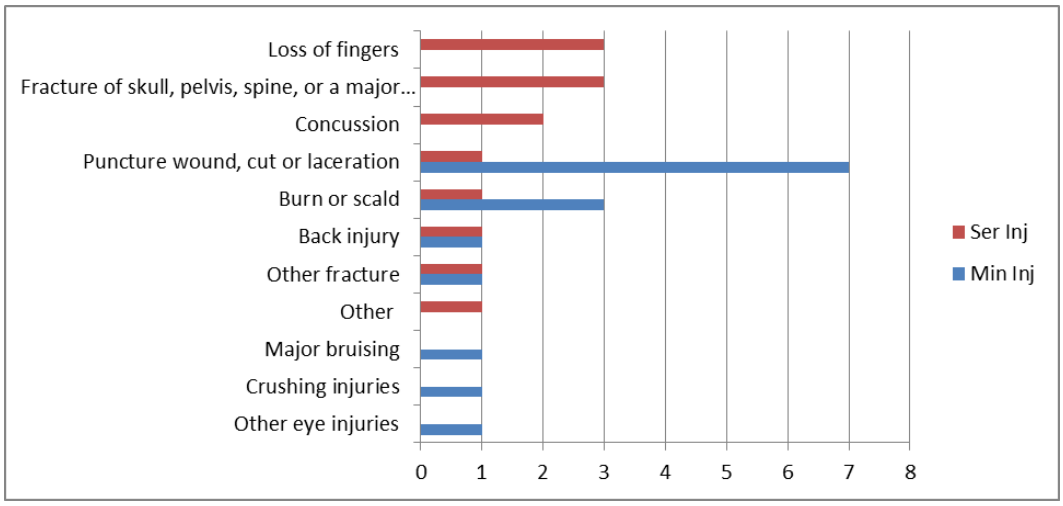
Non-seafarers injuries were reported as follows*;

Non-seafarers:	**Total**	**Min. Inj.**	**Ser. Inj.**	**Death**
Passenger / Guest	2	2	0	0
Visitor	1	0	1	0
Total	**3**	**2**	**1**	**0**

*Nb In some cases more than one injury may have occurred to the same person. Cases involving illness, suicide, missing or death due to natural causes are not included.

5.3 Number of Reported Seafarer Injuries and Deaths

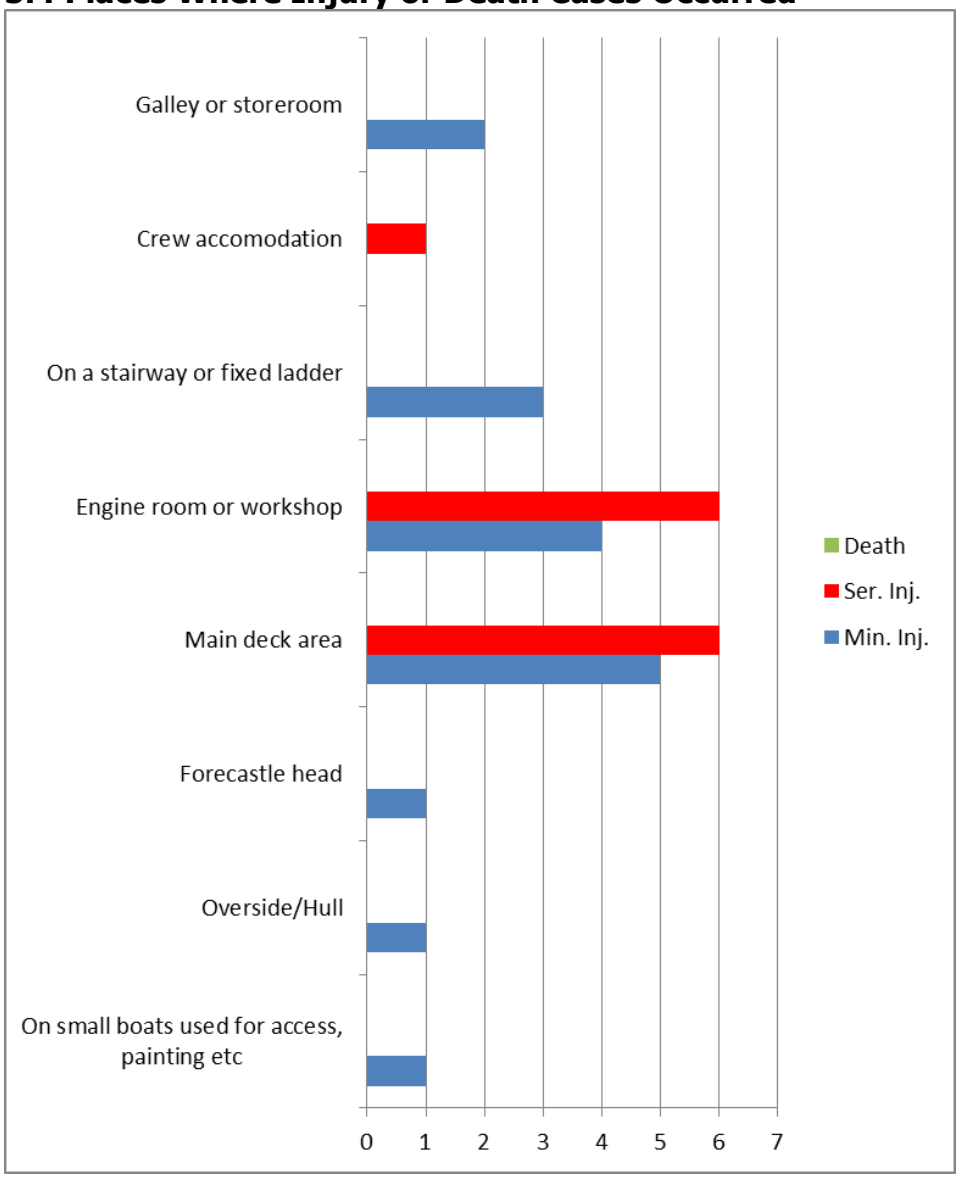
(Total 28 individual seafarer injuries – 15 minor and 13 serious injuries)



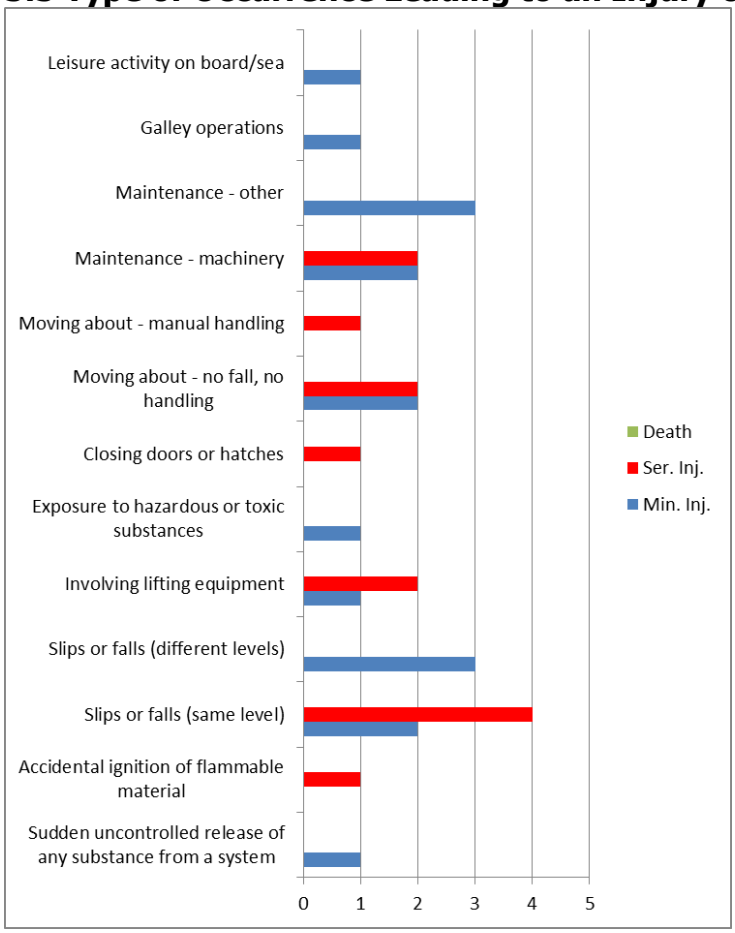
	Min. Inj.	Ser. Inj.
Head	1	4
Torso	1	1
Leg	0	1
Arm	4	2
Hand	8	5
Foot	1	0
Total	**15**	**13**

Age Range	Min. Inj.	Ser. Inj.
16-19	1	0
20-29	5	3
30-39	6	5
40-49	2	3
50-59	1	2
60+	0	0
Total	**15**	**13**

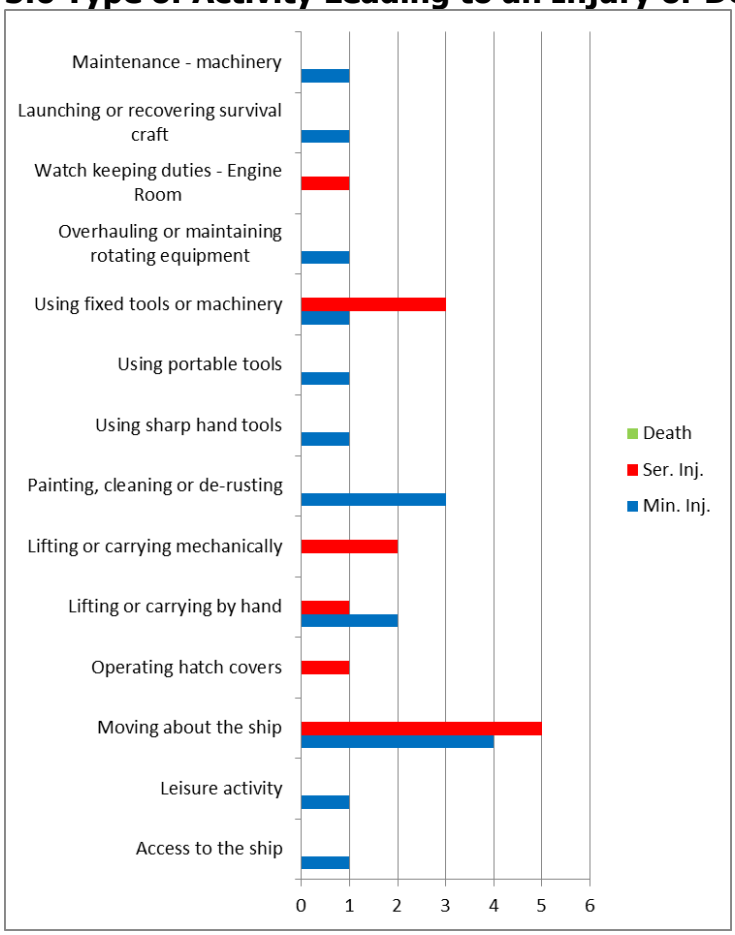
5.4 Places Where Injury or Death Cases Occurred



5.5 Type of Occurrence Leading to an Injury or Death Case



5.6 Type of Activity Leading to an Injury or Death Case



Chapter 6 - IMO Casualty Investigation Code

Reports received by IOMSR in 2018 have been classified in this chapter according to the International Maritime Organisation (IMO) Casualty Investigation Code.

6.1 IMO Casualty Investigation Code Definitions

A **marine incident** means an event, or sequence of events, other than a marine casualty, which has occurred directly in connection with the operations of a ship that endangered, or, if not corrected, would endanger the safety of the ship, its occupants or any other person or the environment. However, a marine incident does not include a deliberate act or omission, with the intention to cause harm to the safety of a ship, an individual or the environment.

A **marine casualty** means an event, or a sequence of events, that has resulted in any of the following which has occurred directly in connection with the operations of a ship:

.1 the death of, or *serious injury* to, a person;
.2 the loss of a person from a ship;
.3 the loss, presumed loss or abandonment of a ship;
.4 *material damage* to a ship;
.5 the stranding or disabling of a ship, or the involvement of a ship in a collision;
.6 material damage to marine infrastructure external to a ship, that could seriously endanger the safety of the ship, another ship or an individual; or
.7 severe damage to the environment, or the potential for severe damage to the environment, brought about by the damage of a ship or ships.

A marine casualty does not include a deliberate act or omission, with the intention to cause harm to the safety of a ship, an individual or the environment.

Serious injury means an injury which is 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.

Material damage in relation to a marine casualty means:

1. damage that:
    a. significantly affects the structural integrity, performance or operational characteristics of marine infrastructure or a ship; and
    b. requires major repair or replacement of a major component or components; or
2. destruction of the marine infrastructure or ship.

A **very serious marine casualty** means a marine casualty involving the total loss of the ship or a death or *severe damage* to the environment. (*NB this does not include death by natural causes*). A marine safety investigation shall be conducted into every very serious marine casualty.

Severe damage to the environment means damage to the environment which, as evaluated by the State(s) affected, or the flag State, as appropriate, produces a major deleterious effect upon the environment.

6.2 Reported Cases Classified as per IMO Casualty Investigation Code

The tables below represent the cases reported to IOMSR in 2018 classified as per the IMO Casualty Investigation Code for different vessel types.

	Total	Passenger	Oil Tanker	Chemical Tanker	Gas Carrier	Bulk Carrier	Offshore/ Standby	Other Cargo	Comm. Yacht	Pleasure Vessel	Fishing Vessel
Very Serious Marine Casualty:	**0**										
Death	0										
Severe Damage to Environment	0										
Loss of Ship	0										

Marine Casualty:	**21**	**0**	**7**	**0**	**2**	**4**	**1**	**4**	**2**	**0**	**1**
Death	0										
Serious Injury	13	0	6	0	1	3	1	2	0	0	0
Material Damage to Ship	3					1			1		1
Stranding, Disabled, Collision	5		1		1			2	1		

Marine Incident:	**55**	**5**	**9**	**0**	**6**	**6**	**6**	**5**	**18**	**0**	**0**

Year		**2016**	**2017**	**2018**	**2018 Cases**
Number of Reports Received		**71**	**81**	**76**	
Very Serious Marine Casualty	Death	0	0	0	
	Severe Damage to Environment	0	0	0	
	Loss of Ship	0	1	0	
	Total Cases	**0**	**1**	**0**	
Marine Casualty	Death	1	0	0	
	Serious Injury	14	14	13	See Chapter 5.2 – Seafarer injuries See Chapter 7.1 cases 1-13
	Material Damage to the ship	6	6	3	See Chapter 7.1 cases 14-16
	Stranding, Disabled, Collision	10	9	5	See Chapter 7.1 cases 17-21
	Total Cases	**31**	**29**	**21**	
Marine Incident	**Total Cases**	**40**	**51**	**55**	See selected cases in Chapters 8 and 9

The numbers of Marine Incident, Marine Casualty and Very Serious Marine Casualty cases are reported by IOMSR to the International Maritime Organisation annually.

Chapter 7 – Casualties in 2018

A total of 21 casualty cases were reported in 2018 and are outlined below.

Casualties	Berthed/ Docked	At Anchor/ Anchoring/ Weighing Anchor	Mooring/ Unmooring	Making Way in Port/ Confined Waters	Making Way Open Sea	Drifting	Total
Passenger ship	0	0	0	0	0	0	**0**
Oil tanker	1	2	1	1	2	0	**7**
Chemical tanker	0	0	0	0	0	0	**0**
Gas carrier	1	0	0	1	0	0	**2**
Bulk carrier	1	0	0	0	3	0	**4**
Offshore/Standby	1	0	0	0	0	0	**1**
Other cargo Vessel	2	0	0	2	0	0	**4**
Comm Yacht	0	0	0	1	1	0	**2**
Pleasure Vessel	0	0	0	0	0	0	**0**
Fishing Vessel	1	0	0	0	0	0	**1**
Total	**7**	**2**	**1**	**5**	**6**	**0**	**21**

7.1 Brief Summary of All 21 Casualty Cases in 2018

1 Other Cargo ship – Serious injury case

During cargo loading operations, the crew commenced closing the ship's hatch covers when it started to rain. A rating released the stopper then proceeded to operate the hydraulic controller. He operated the controller with left hand while forgetting his right hand. The hatch cover wheel passed over his hand, causing serious injury to three of his fingers.

The hatch cover closing was instantly ceased. First aid provided to injured seafarer. The Master called the ambulance and the seafarer was transferred to a local hospital.

Following the incident, the hatch cover closing procedures were reviewed. Special Safety measures were discussed including safety notices placed near the control boxes and the hatch coamings put in place.

2 Gas carrier – Serious injury case

Whilst at anchorage maintenance on the sea chest anode system was being conducted. The sea chest cover was mounted and personnel were advised to remove their hands from sea chest cover area. As a chain block was slackened a seafarer trapped his finger under the sea chest bottom cover which cut the end of his finger off.

First aid treatment was given before transferring the injured seafarer ashore to a local hospital.

3 Bulk carrier – Serious injury case

While on passage the vessel was experiencing heavy rolling and pitching. An engineer fell from a bench whilst sitting in the engine control room. The engineer used his arm to support himself while falling which resulted in twisting of arm and fracturing his humorous.

4 Oil tanker – Serious injury case

During overhaul of a main engine piston unit an engineer severed the outermost joint of his finger.

An investigation on board identified the injury occurred when the piston unit was being lifted from its position in cylinder the piston rod foot connected with the stuffing box and tension on the crane's lifting wire.

The engineer was inside the engine's A-frame monitoring the piston. When he moved closer to the piston rod unit to investigate why the piston had stopped his fingers were between the space on top of the piston rod foot and the stuffing box flange, at the same time the piston rod unit

suddenly jumped upwards in excess of 10cm.

The jump of the piston rod unit was caused by a snapping bolt that connected the stuffing box to the stuffing box flange. During the removal of the securing bolts, one bolt was overlooked and not removed during the preparation prior to the lifting operation.

During the lifting operation only line of sight hand signals and face to face communication were used. (No radios were used between the crew members).

This case highlights the need of enhanced situational awareness during such heavy lifts of machinery part and the importance of effective job planning and preparation especially concerning the removal of the securing bolts.

5 Oil tanker – Serious injury case

An engineer officer reported that he had cut the top of his finger off whilst performing maintenance on air starting compressor.

The compressor shaft oil seal had been replaced and the compressor tested, however the motor had tripped on over-current when test-run. The compressor and motor were re-isolated and the engineer proceeded to remove the motor with the assistance of other engineers.

Once the motor was removed, the engineer was attempting to move the flywheel by hand to check for tight spots. As he rotated the flywheel, it picked up some momentum, resulting in his finger caught between the flywheel and compressor casing, resulting in injury to his finger.

The engineer sought immediate medical attention and was removed to the ship's hospital, where first aid was applied. The vessel was diverted and the engineer evacuated to hospital.

6 Oil tanker – Serious injury case

Whilst the vessel lay at anchor a seafarer was walking on the main deck in heavy rain when he slipped over and badly injured his hip. After administering first aid on board the seafarer was later transferred to a shore hospital on a stretcher by a launch boat.

7 Offshore vessel – Serious injury case

Whilst operating a crane tugger winch a seafarer caught his foot caught in a crane tugger winch resulting in the end of his steel toe capped boot being chopped off together with all the toes of his left foot. The seafarer was immediately taken to hospital for surgery and treatment.

An on-board investigation determined inadequate an unsafe system of work was used not in accordance with company requirements and there was inadequate supervision of the whole operation. The seafarer had also positioned himself in a constricted space and did not request winch to stop.

8 Oil tanker – Serious injury case

Whilst making way in heavy weather it was noted from the officer of the watch on the bridge that a lifebuoy half way along the main deck had come loose form it's securing and was rolling around the deck.

It was decided a team should make their way along the main deck to retrieve the loose lifebuoy. The team retrieved the lifebuoy and made it secure. At the same time it was decided to go further forward to secure the forward liferaft and a loose cover on the fo'c'sle. As the men neared the fo'c'sle two successive waves broke onto the main deck and struck two seafarers. The waves washed the seafarers across the deck who sustained multiple significant injuries to the head and back.

On arrival in port the injured seafarers were transferred to a local hospital.

9 Oil tanker – Serious injury case

A seafarer was working on the deck with an engineer to change a gasket on a deck heater steam inlet valve. He was asked to bring an additional spanner from the workshop. When he arrived the engineer noticed he looked weak, not walking in a straight line with a strange look on his face. The seafarer was transferred to the ships hospital for observation and first aid for a suspected stroke. The rating was eventually transferred ashore and taken to the local hospital for treatment.

10 Oil tanker – Serious injury case

Whilst the ship was in port a seafarer tripped when making rounds on deck and injured his arm. The seafarer was taken to the local hospital where he was diagnosed with a fractured arm. The seafarer was eventually repatriated home following his medical treatment.

11 Bulk carrier – Serious injury case

Whilst lifting a heavy bucket in the engine room a seafarer injured his back. First Aid given and he was confined to his cabin and told to rest and kept under observation. Radio medical advice was obtained and further treatment given in accordance with the medical advice. Eventually the seafarer was airlifted to a hospital ashore to receive further treatment.

12 Bulk carrier – Serious injury case

An engine officer was preparing to use the ship's incinerator and was waiting for the furnace temperature to fall to around 200ºC. As the furnace door is equipped with safety interlock he opened up the door and started to fill up the furnace chamber with garbage cut into pieces followed by oily rags and saw-dust soaked with oil.

The engineer officer was positioned behind the door when the last garbage of saw dust entered the furnace suddenly ignited and the door chamber pushed open resulting in fire braking out onto his face and neck, he then managed to close the chamber door.

The engine officer was given immediate first aid treatment on board followed by treatment under radio medical advice.

13 Other cargo ship – Serious injury case

Whilst the ship was alongside in port a seafarer was passing through a door between accommodation and open deck. Due to the vessel's stern trim the door closed faster than expected and the sailor instinctively put his hand out to catch it, resulting in his finger becoming trapped between the door and the frame resulting in laceration and fracture.

The seafarer was sent to a local medical centre to receive treatment.

14 Fishing vessel – Material damage to the ship case

The fishing vessel was unmanned and moored alongside when a member of the public alerted the owner that his fishing vessel on fire. The owner alerted the fire department who attended the scene promptly and eventually extinguished the fire. The fishing vessel sustained significant structural and equipment damage as a result of the fire on board. No injuries were incurred.

- This was the subject of an Isle of Man Ship Registry casualty investigation.

15 Commercial yacht – Material damage to the ship case

Whilst making way in heavy seas the upper end of the valve for the sail store cool water ice maker intake parted from the deck whilst the bottom of the valve was lost to sea leaving a 50mm hole in the hull and resulting in water intake.

16 Bulk carrier – Material damage to the ship case

Whilst alongside conducting cargo operations in an exposed berth extra mooring lines had been placed forward and aft to keep the vessel alongside. During the evening the weather worsened. The vessel had completed loading when heavy swell and strong winds at the berth caused the vessel to surge causing three head-lines and one spring line to part. The master requested a tug-boat and pilot immediately.

Meanwhile all available crew were tasked with preparing the vessel for immediate departure from the port. The pilot boarded and suggested to sail out immediately.

The ship was made ready for departure and soon sailed out of port. On berthing at next port during the check of the hull observed hull damage and a puncture of the hull above the water line.

17 Gas carrier – Stranding, disabled or collision/allision case

The vessel was departing port when the pilots had safely disembarked the vessel to an attending tug boat. As the tug was departing from the vessels side the tug was caught by the swell and its stern made heavy contact with the vessel's hull in way of a water ballast tank.

It was agreed that the tank would be inspected for damage after the required ballast exchange had been completed. During the ballast exchange water was ingress was noted in the ballast tank. The tank was later entered where it was discovered the tank had suffered structural damage.

18 Other cargo ship – Stranding, disabled or collision/allision case

The vessel was approaching the planned berth with the minimum required steering speed in extremely poor visibility (very thick fog) using radars. The crew on forward mooring station were requested to report immediately, when they had visual contact of a dolphin at the pier end. The bridge team received a report from bow that there is a 20 meters distance to the dolphin then helm was immediately put hard over, maximum bow thruster applied and both engines full astern. The vessel made contact with a dolphin at the pier head shortly thereafter causing significant structural damage. When the vessel touched a dolphin at the pier end there was still no visual contact of the pier head from a bridge.

The vessel sustained several buckled frames and steel plate deformation as a result of the impact. A fender on the quay also punctured the shell plating causing a hole.

19 Other cargo ship – Stranding, disabled or collision/allision case

The vessel planned to depart dry dock and change to a 'wet' basin. Prior to the berth change the manoeuvre was planned with the pilot.

The master and pilot disagreed on the manoeuvre and how the vessel was to be swung in the basin and moored alongside. Reluctantly the master complied with the pilot's suggestion.

As the vessel entered the wet basin the vessel it was planned to swing the vessel prior to mooring with clearing distances of 10m. The master instructed mooring parties forward and aft to advise continually the clearing distances.

As the vessel was nearing the completion of the swing and manoeuvred onto the berth the clearing distances from the aft mooring officer were reducing, then increasing then suddenly reduced dramatically when the vessel's stern collided with another moored ship causing structural damage to both vessels.

20 Commercial yacht – Stranding, disabled or collision/allision case

The yacht was making way at full speed in an area of poor hydrography when it grounded on uncharted under water obstruction. As a result of the grounding, significant structural damage was caused rendering the yacht unseaworthy. Minor pollution to the marine environment was caused by ruptured fuel oil tanks leaking to sea. No injuries were sustained to any crew or guests on board.

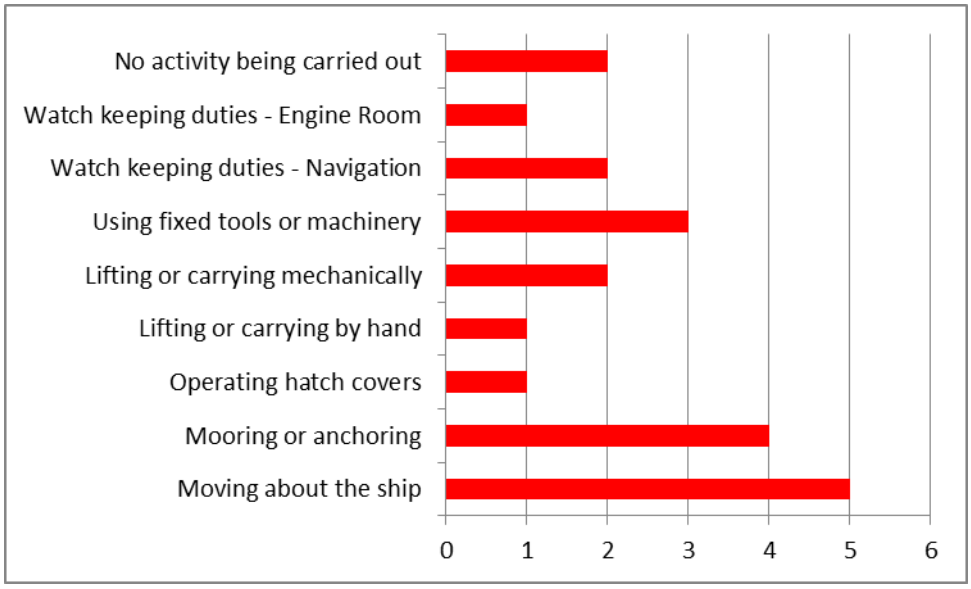
- This case was the subject of an Isle of Man Ship Registry casualty investigation.

21 Oil tanker – Stranding, disabled or collision/allision case

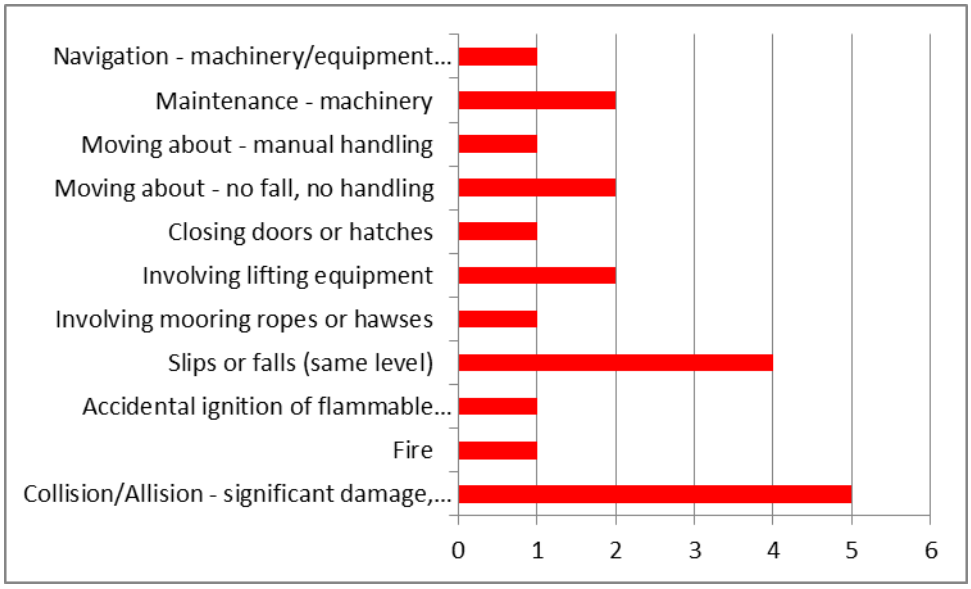
While berthing with the aid of a pilot and two tugs the vessel made heavy contact with the quayside.

As a result of the heavy contact the vessel sustained structural damage to the hull which required repair before departure.

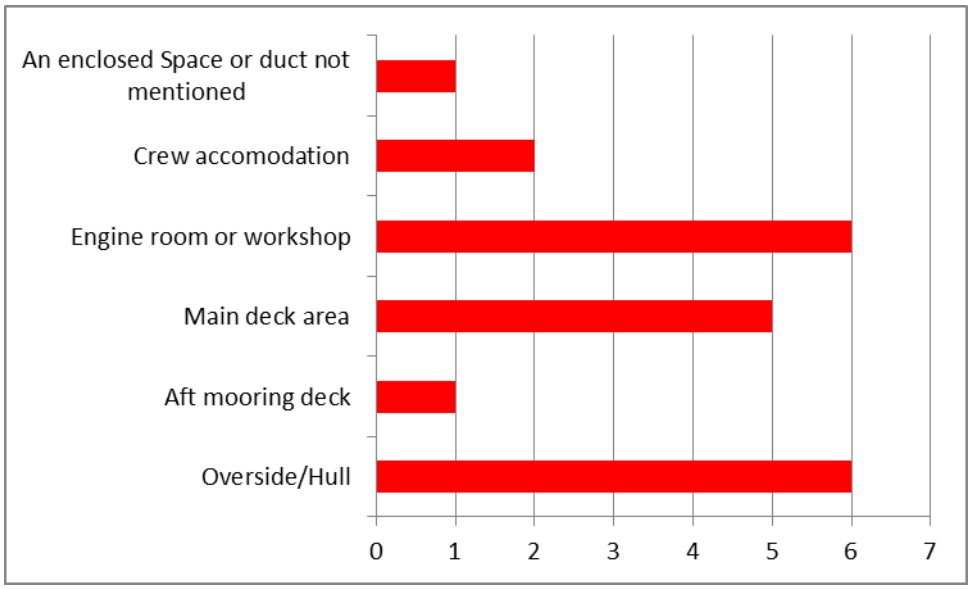
7.2 Casualty Chart Representations



2018 Casualty Activities



2018 Casualty Types



2018 Casualty Places

Chapter 8 – Accidents in 2018

A total of 16 accident cases were reported in 2018 and are outlined below.

accidents	Berthed/ Docked	At Anchor/ Anchoring/ Weighing Anchor	Mooring/ Unmooring	Making Way in Port/ Confined Waters	Making Way Open Sea	Drifting	Total
Passenger ship	2	0	0	1	0	0	**3**
Oil tanker	0	1	0	0	2	0	**3**
Chemical tanker	0	0	0	0	0	0	**0**
Gas carrier	1	0	0	0	0	0	**1**
Bulk carrier	0	0	0	0	0	0	**0**
Offshore/Standby	0	0	0	0	0	5	**5**
Other cargo Vessel	1	0	0	0	0	0	**1**
Comm Yacht	1	1	0	0	1	0	**3**
Pleasure Vessel	0	0	0	0	0	0	**0**
Fishing Vessel	0	0	0	0	0	0	**0**
Total	**5**	**2**	**0**	**1**	**3**	**5**	**16**

8.1 Brief Summary of Selected Accident Cases in 2018

Oil tanker

Hydraulic oil was accidentally lost overboard due to a leakage in the lube oil cooler. On opening and pressure testing the cooler it was confirmed that one tube had leaked resulting loss of system oil with cooling sea water.

An investigation highlighted the following improvements could be made;

- Continuous monitoring of oil level in the tank.
- Maintain lube oil level to just above the low level alarm.
- Regular checking of drain of oil cooler for any leakage.
- Regular testing of oil cooler.

Passenger ship

After refuelling a fuel bowser on board for a ship's generator the fuel bowser's lid was closed and the filling hose was left unattended on the ship's deck. Approximately 20ltr of fuel subsequently spilled from the hose onto the deck and eventually into the dock water. The spill was eventually noticed by another seafarer passing by who rectified the problem by placing the fuel hose back into the fuel bowser.

Other cargo ship

Whilst in port an engineer officer was repairing a boiler when a hot fuel sudden sprayed as result of breakdown of outlet hose of portable pump. The engineer officer suffered a minor skin burn. Medical aid was provided on board before the third engineer was transferred to a local hospital.

Offshore vessel

An ROV was working at depth when a problem occurred with the manipulator causing a small amount of oil to be released to sea via the relief valve. The ROV was eventually recovered where an investigation found a damaged o-ring caused an open loop between the main pressure and electrical compensator, filling it up and triggering the relief valve.

Commercial yacht

Whilst on passage the vessel encountered unexpectedly high seas during which various cupboards and fittings began to break loose. At the same time a minor fire broke out in the engine room. The main engines were shut down as a precaution. The fire alarm was sounded and all the crew mustered. The duty engineer extinguished the fire with a portable fire extinguisher.

An investigation found that a bleed screw on the HP fuel filter had loosened spraying fuel over an

auxiliary engine. The master diverted the vessel to the nearest port for further damage assessment and repairs.

Offshore vessel
The ship was engaged in underwater operations using a heavy lift crane over the side supporting diving operations. The crane operator noticed drops of oil falling into the sea. The crane was immediately recovered to the deck and hydraulic lines isolated.

An investigation found that the leak emerged from a seal located on the knuckle of a luffing ram.

Passenger ship
Whilst berthing the fire alarm panel sounded indicating a fire followed shortly by the loss of main engine power. The engine room informed the bridge an engine was on fire, whereupon the emergency stop and aquamist systems were activated to extinguish fire. Harbour Control was contacted to arrange emergency services and tug assistance to attend on arrival. Once alongside fire services attended and the fire was confirmed extinguished.

Entry was made into the engine room which and source identified as failure of turbo charger.

Oil tanker
Whilst stowing a provision crane jib, the hoisting wire parted and the load block fell approximately 8-10 meters onto the deck. The weight of load block was 68 Kgs. There were no injuries to any personnel. The nearest position of personnel working in vicinity was approx. 17 meters from the location of fall.

Oil tanker
Whilst conducting a lifeboat drill using the freefall lifeboat under a controlled launch the recovery device's hydraulic ram developed a leak resulting in a small quantity of oil spraying into the sea and onto the aft deck. The freefall lifeboat was stowed back into position and the oil spill cleaned up by ship's staff.

Gas carrier
Whilst investigating an alarm the duty engineer noticed the smell of burning and reported this back to the cargo control room. The deck watchman was sent to investigate the aft main deck area along with the chief engineer and chief officer. A small fire was observed on canvas covered drums sat on pallets in the vicinity of the funnel. The fire alarm was activated whilst at the same time the fire was extinguished with a portable fire extinguisher.

An investigation found that the fire started by hot soot from the auxiliary boiler funnel landing on the canvas and setting the canvas alight. The canvas was not fire retardant nor were there spark arrestors on the funnel exhaust.

Offshore vessel
The vessel was engaged in underwater ROV operations supporting diving operations when a small quantity of hydraulic oil was lost to the sea. An investigation determined the leak emerged from the cracked pump casing on the hydraulic tooling system. The ROV was recovered to the deck where the faulty system was cleaned and repaired.

Commercial yacht
During the night the fire alarm went off indicating a fire in the lazarette. On initial investigation a portable fire extinguisher was used while other crew were busy on deck readying more fire extinguishers. Fire hoses were also prepared in addition to switching off shore power breakers on the dock to cut shore power.

The fire pump was started and crew began to spray into the space. More fire extinguishers were released into the space. After about 15–20 minutes of spraying the water into the lazarette, they closed the hatch and continued to boundary cool on the deck. By this time, the police had arrived followed by the fire

brigade.

When they opened the hatch it appeared that the fire had been extinguished and began to empty the contents of the lazarette. Four batteries for the jetsurf were put on the deck and reignited. The fire brigade extinguished the fire and removed the batteries from the yacht to the dock.

Later the batteries reignited again the dock area. The crew got the hose and any other fire extinguishers that were unused, and went to the scene. The yard manager and an assistant were there. Fire extinguishers from the yacht and yard were used again to contain that fire.

Passenger ship
A main engine was undergoing test running for an unexpected sailing when it was noticed that oil was discharging from the jacket water header tank due to cooler plate failure.

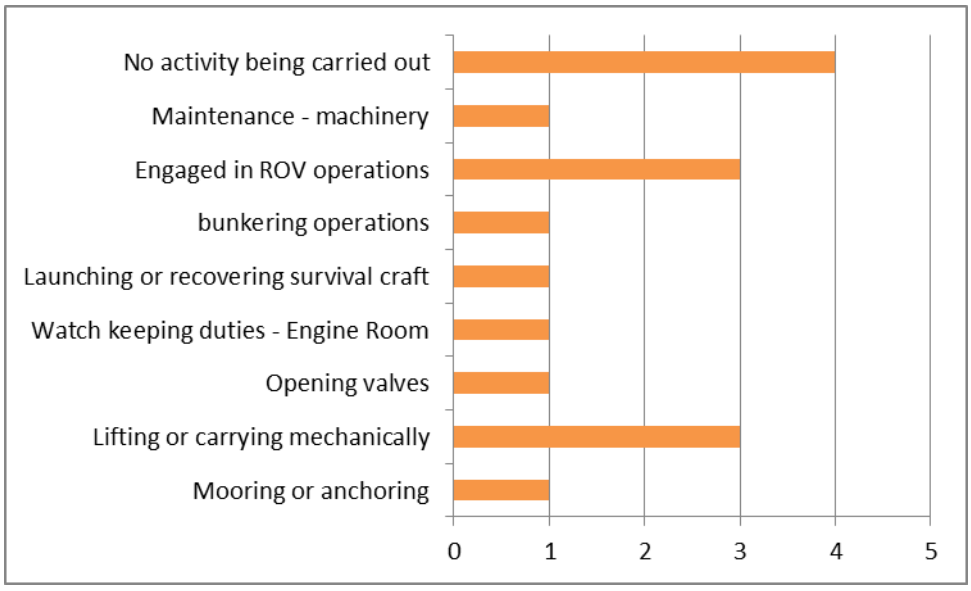
The engine was stopped immediately and the bridge was informed. An investigation revealed that the starboard ante-room had emulsified oil on the deck causing an oil spill into the dock water via the scuppers.

Oil pollution control procedures put in place and a pump used to pump the oil into a bowser.

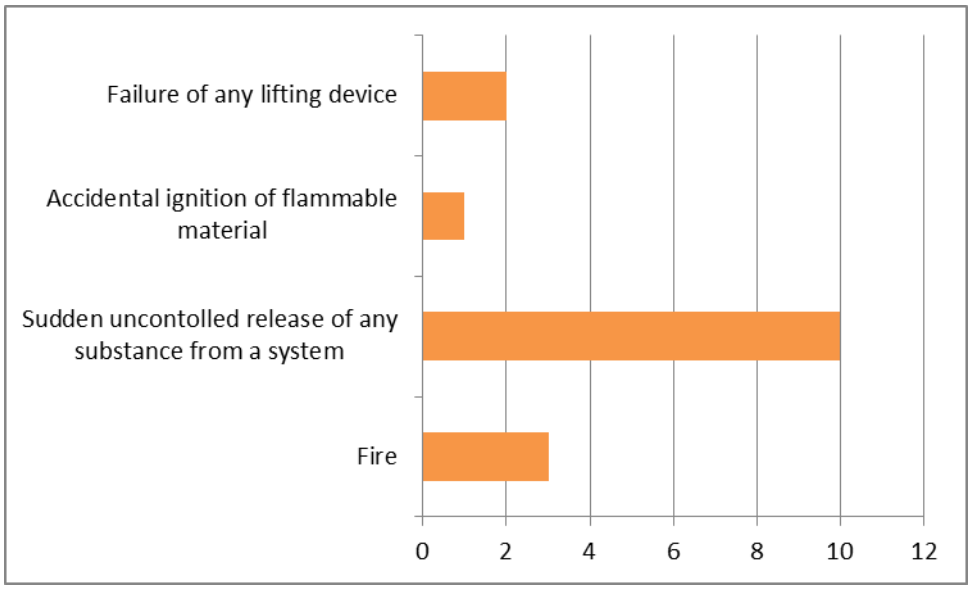
- This case was the subject of an Isle of Man Ship Registry investigation.

Offshore vessel
During ROV operations a small oil leak occurred on a manipulator arm. On discovering the leak the manipulator arm was retracted and the power supply disconnected. The ROV was then brought to the surface for investigation and repair.

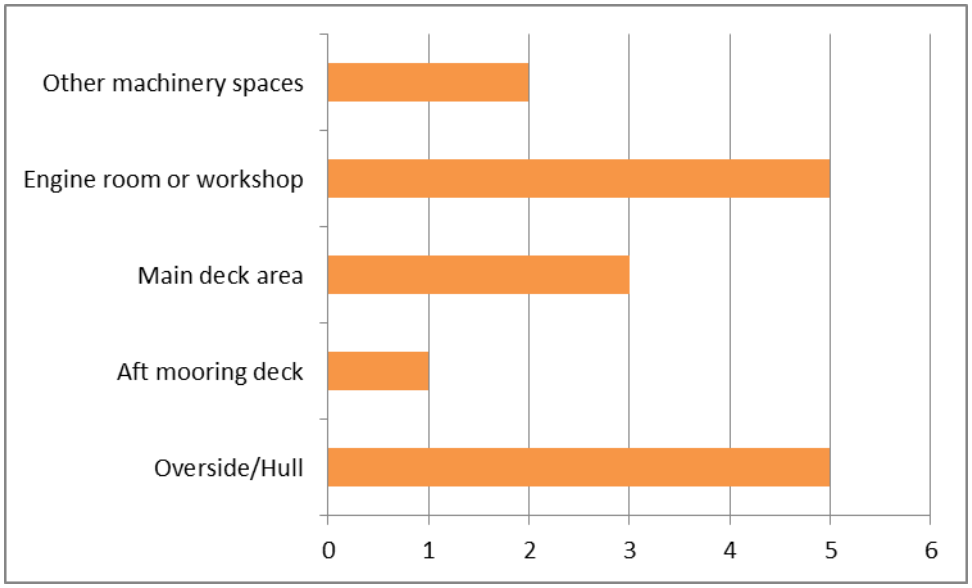
8.2 Accident Chart Representations



2018 Accident Activities



2018 Accident Types



2018 Accident Places

Chapter 9 – Incidents in 2018

A total of 39 incident cases were reported in 2018 and are outlined below.

incidents	Berthed/ Docked	At Anchor/ Anchoring/ Weighing Anchor	Mooring/ Unmooring	Making Way in Port/ Confined Waters	Making Way Open Sea	Drifting	Total
Passenger ship	0	0	0	1	1	0	**2**
Oil tanker	1	1	0	0	4	0	**6**
Chemical tanker	0	0	0	0	0	0	**0**
Gas carrier	0	0	0	2	2	1	**5**
Bulk carrier	0	1	0	3	2	0	**6**
Offshore/Standby	0	0	0	1	0	0	**1**
Other cargo Vessel	1	1	0	1	1	0	**4**
Comm Yacht	6	6	1	1	1	0	**15**
Pleasure Vessel	0	0	0	0	0	0	**0**
Fishing Vessel	0	0	0	0	0	0	**0**
Total	**8**	**9**	**1**	**9**	**11**	**1**	**39**

9.1 Brief Summary of Selected Incident Cases in 2018

Bulk carrier
The vessel experienced a blackout and lost main engine power when approaching a fairway channel with a pilot on board. All 3 running generators had shut down due to the failure of DG HFO flowmeter which was found stuck.

The emergency generator had started immediately and the electric power was restored. As per the pilot's order the vessel made fast 4 tugs which were in the vicinity while the vessel was approaching the fairway.

The failed HFO flowmeter was by-passed and all generators were soon restored to working order. The main engine was successfully restarted. The pilot directed the vessel back to the anchorage in order to fix all equipment related to the incident.

The faulty flowmeter was dismantled and found partly clogged around the inlet filter.

Commercial yacht
Whilst entering a confined berth the starboard propeller clipped another vessel’s anchor chain. Upon receiving report from the aft deck that contact had been made with the other vessel's chain, the engine was unclutched to prevent further damage. As a precaution the pitch control was disengaged for both engines until the chain had been sunk. Berthing was completed using the port engine until a full inspection could be carried out.

Propeller blades were later inspected by diver who confirmed only a minor dulling of the propeller leading edge.

Commercial yacht
A seafarer inadvertently kicked a stainless steel handrail that had been placed on the main deck cutting in between her toes and fracturing a toe. At the time seafarers were passing each other on a relatively narrow deck.

Oil tanker
Whilst preparing to get underway from anchorage another ship entered the anchorage and passed extremely close ahead of own vessels bow. The other ship failed to respond to attempts to attract attention to the situation. In addition, VTS also failed to respond to calls to advise the other ship that she was running into danger.

When the other ship was halfway passed a slight shuddering was felt. Preliminary investigations revealed that the other ship had collided with the anchor cable as some slight scratches were later found on the chain cable.

Other cargo ship
The vessel departed it's berth in moderate wind conditions assisted by 2 tugs being made fast forward and aft centre leads. Just prior to vessel clearing a portside inner breakwater the master & pilot agreed upon letting go the forward tug. At this time the winds started gusting to Force 8.

The master observed that the vessel's speed was dropping instead of increasing as expected with engine at full ahead and enquired with the pilot. The master soon realized the drop in speed was being caused by the aft tug pulling strongly at vessels' stern and to her portside, which also caused vessel's bows to swing over to starboard towards the breakwater fenders.

Master immediately ordered 40 degrees port helm and simultaneously ordered pilot to ask the aft tug to stop pulling vessel on her port quarter. Master also gave full thruster on bow, but the vessel continued drifting to portside toward the fenders.

The master having realized that the vessel did not have sufficient speed to clear the breakwater ordered the aft tug to slack off her line completely, stopped main engine and gave emergency 'full astern' order to stop vessel's head swing to starboard and also bring the vessel bodily parallel to the breakwater wall in order to land her gently onto the fenders, thus preventing any damages to vessel or to any shore fenders.

Other cargo ship
The vessel was steaming in ballast condition when high swells and very rough seas were encountered causing the ship to roll heavily. The chief cook was in the galley preparing for dinner. Due to a sudden heavy roll of 30 deg. the soup splashed onto the frying pan (containing some oil) where a small fire sparked but diminished immediately. The chief cook quickly removed the frying pan from the hot plate to prevent fire. While doing so, he slipped and fell causing the soup in the frying pan to spill onto his left arm due to heavy roll of the vessel.

Passenger ship
The vessel was on final approach to the port entrance between two breakwaters where the wind speed unexpectedly increased. Helm was applied in an effort to counteract the set, however this proved to be ineffective. The vessel then continued past the breakwater to a position where the port beam made light contact with the breakwater. The vessel then continued without incident to the berth.

Oil tanker
Whilst leaving the forecastle space, the seafarer turned and closed the door inadvertently closing his finger between door and frame. The prevailing conditions were force 5 with the vessel rolling moderately at times.

Bulk carrier
During Suez Canal transit in convoy, another vessel ahead was observed swinging rapidly to port and ran aground. The pilot along with the Master took evasive action using her engines to hold the vessel in position safe of the other two vessels forward and not damaging own vessel or equipment. The port anchor was lowered and finally made fast to 9 shackles on deck.

Later when attempting to resume canal transit in assistance with Pilot and tug boats, multiple attempts to heave up the anchor only achieved 4 shackles raised on deck. However, the Pilot and the Port control forced the vessel to slip the anchor by threatening to impose criminal charges and issuing notice to impose heavy fines for delaying the canal traffic and also hold vessel responsible for the damage to the shoreline, damage to the property or even damage to any other ship. In consultation with the owners vessel slipped the port anchor from the bitter end.

Bulk carrier
While altering course in heavy weather the vessel rolled heavily and shipped seas across the deck. The pilot ladder and some deck barrels secured on deck broke from their securing, crossed the deck and damaged the pilot ladder and barrels.

Gas carrier
The vessel arrived at the pilot station on arrival to port and was ordered to wait for pilot boarding. During this waiting period the vessel conducted astern manoeuvres in order to hold position.

The vessel later proceeded towards the breakwaters with slow/dead slow ahead and picked up the pilot. The Master-Pilot Exchange was completed and it was agreed not to make fast the tug, but keep it for pushing only. The Main Engine was stopped and the vessel passed the breakwater. On arriving in the turning basin the engine was ordered to dead slow astern to stop the vessel, but the engine command failed. Contact between ECR and Bridge was established immediately. The vessel conducted several attempts to start the engine astern, without success. Between these attempts, two short kicks ahead with the engine were done. On last manoeuvre the vessel dropped the anchor to reduce the speed (at that time 2,2 kts.), but this manoeuvre could not avoid minor contact with another moored vessel.

On arrival alongside the berth the hull was inspected where no structural damage was identified.

An investigation later identified the root cause being the main engine starting air distributer failed to start astern propulsion and the starting air distributor failed due to moisture in the starting air system which caused the malfunction.

Commercial yacht
A seafarer was climbing down an escape ladder from the heli-deck where he slipped from the step. In an effort to stop his fall the seafarer grabbed a nearby hatch handle which closed the hatch cover on his other hand causing cuts and bruises.

Oil tanker
A seafarer went to main deck with a mop bucket to collect fresh water for mopping. While he was carrying half bucket of water through the stairway, he slipped from the stairs. Another crew member heard his shouts and immediately rushed to the platform to aid him up.

Oil tanker
A seafarer suffered superficial burn on his right forearm while working on deck with steam during cargo hose cleaning.

Commercial yacht
The yacht was navigating within a traffic separation scheme where a fishing vessel altered course to pass ahead of the yacht. Attempts to communicate with the fishing vessel by radio and sound signals failed.

The fishing vessel subsequently altered course to port where the yacht and fishing vessel had a minor collision suffering only paint damage.

Commercial yacht
A guest was using water sports equipment when he next decided to start diving (without breathing apparatus) to a depth of 4.5m. The guest later suffered nausea, vomiting and headaches. Immediate action was taken on board to rest the guest before taking him to a shore side medical facility where was later given the all clear.

Commercial yacht
During guest transfer from shore to a tender boat in choppy seas a guest stepped on the top of a painted locker and slipped. This locker is not meant for guest access. The tender was wet as had arrived through choppy seas and the guest declined assistance to board the tender.

An investigation concluded the following improvements could be made;

- Improved lighting to illuminate the correct boarding area.
- Improved deck crew instructions to all passengers boarding the tender, regardless how familiar they are.
- Top of locker to be dried before arrival at guest pick up or drop off. Tender crew to always offer assistance and instruction.
- Non Skid solutions to be investigated as a possible preventative means.

Commercial yacht
While the chef was moving about the yacht carrying stores he fell down some stairs where he sustained bruising to his ribs and knee.

Commercial yacht
In the afternoon a guest was woken by smoke in another guest cabin. The source of the smoke was a connector between two sections of rope lighting in the deck head recess. There was no visible fire and removing power from the light stopped the potential for fire.

No injuries or other damage to vessel aside from the section of rope light was identified. The interior crew were quick to raise the alarm by radio and first response was quick to the scene with fire extinguishers. The crew immediately survey all rope lighting on board and disconnected any found with the same connectors and solder joints.

Bulk carrier
An engineer officer was cleaning the UV light steriliser sight glass. When he opened the outlet valve the sight glass shattered into his face causing his goggles to rip and cut to his face.

Oil tanker
An engineer officer was replacing the electrical motor on the boiler pump. A Risk Assessment was made for the job. The boiler was switched off and isolated for the task.
After the job was complete and final checks were being made the engineer placed his hand on a pipe near to the running boiler. In doing so his middle finger came in contact with the running belt of the working boiler pump causing minor injury.

Commercial yacht
While mooring alongside the vessel experienced bow thruster failure, the vessel was taken by the current and made a minor glancing blow with a nearby bridge causing minor paintwork damage.

The vessel was manoeuvred away from the bridge with the help of local small boats and soon after was safely moored.

Gas carrier
On arrival in the port the ship was instructed by VTS to stay outside of VTS area due to a typhoon. The vessel later commenced drifting in open sea with the engine room unmanned.

The OOW noticed 3 fishing boats. Two fishing boats crossing the bow and one fishing boat on port quarter. The OOW gave 5 flashes of light from the Aldis lamp towards the two fishing boats crossing the bow. The OOW went out of the bridge and also gave 5 flashes of light from Aldis lamp repeatedly towards the fishing boat on port quarter as well.

The two fishing boats crossed clear the bow. The fishing boat on the port quarter did not take any

action. The Master was called by the OOW advising that a fishing boat is approaching, on collision course in about 5 minutes time. The Master arrived on the bridge and relieved the OOW in handling the Aldis lamp. The main engine was made ready.

The fishing boat made contact on the ship's port side quarter. The damage to the hull was a minor indent not requiring any remedial action.

Commercial yacht
The cook sustained injury during food preparation service when a knife slipped and cut his finger. The yacht was in port with calm weather and conditions. First aid was issued and he was later sent ashore for medical treatment.

Bulk carrier
A rating injured his right hand using a 'rusty bus' de-rusting machine on the main deck. Due to excessive vibrations he switched off the machine and lowered the handle to the deck. The machine had not completely stopped and continued to wind down. As the rating prepared to investigate the cause of the excessive vibrations he sat down on a small seat where he became unbalanced and his hand entered the machine making contact with the belt and pulley causing minor injury.

Gas carrier
Whilst on passage at night the vessel had a minor collision with another vessel. An investigation determined the other vessel was not displaying navigation lights or AIS and was consequently not detected in time or determined to be a potential collision threat in order to make effective avoidance in due time.

The investigation also concluded the officer of the watch's neglect to inform the master or take effective avoiding action by his own action.

Gas carrier
Whilst sailing along a narrow channel the vessel suffered a main engine failure.

Commercial yacht
When cleaning the galley the chef placed a plastic waste bin on top of the griddle to enable him to clean the floor. Whilst doing this he knocked the on-switch for the griddle. The griddle heated up melted the bottom of the bin and set the contents on fire. Immediately upon seeing the smoking bin the chef pulled the bin off the griddle and placed it in the sink. The contents of the bin remained on top of the griddle causing a moderate amount of smoke and some small flames. The chef placed a fire blanket over the griddle. With smoke escaping from the blanket the power to the griddle was isolated and the burning bin further cooled by portable foam extinguisher.

Oil tanker
Whilst on passage the fire alarm in the GMDSS battery room was activated. The Captain sent the duty rating to investigate while the fire fighting crew was mustered. The duty rating reported a small fire on one bank of the UPS battery in the battery room which the captain and the duty rating immediately put out with an extinguisher. Electrical supply was also immediately isolated.

Gas carrier
When loading the incinerator an engine cadet's finger became stuck inside the incinerator sluice chamber between the sluice door and primary chamber partition.

Other cargo ship
The vessel was alongside in port where the crew were engaged in general maintenance tasks following completion of cargo operations. A seafarer was cutting out a section of steelwork to be replaced on the anchor fluke housing. The angle grinder disk "dug in" and "kicked back". The blade struck the seafarer on his left wrist causing a deep cut. First aid was soon applied.

The grinder was inspected by the Safety Officer and found to be in good condition with the correct guard in place and properly adjusted. The disk fitted was of the correct type & size. The Electrician tested the trigger switch and was working fine.

The seafarer was wearing all appropriate PPE. The area was well lit, ventilated and a valid Permit to Work issued.

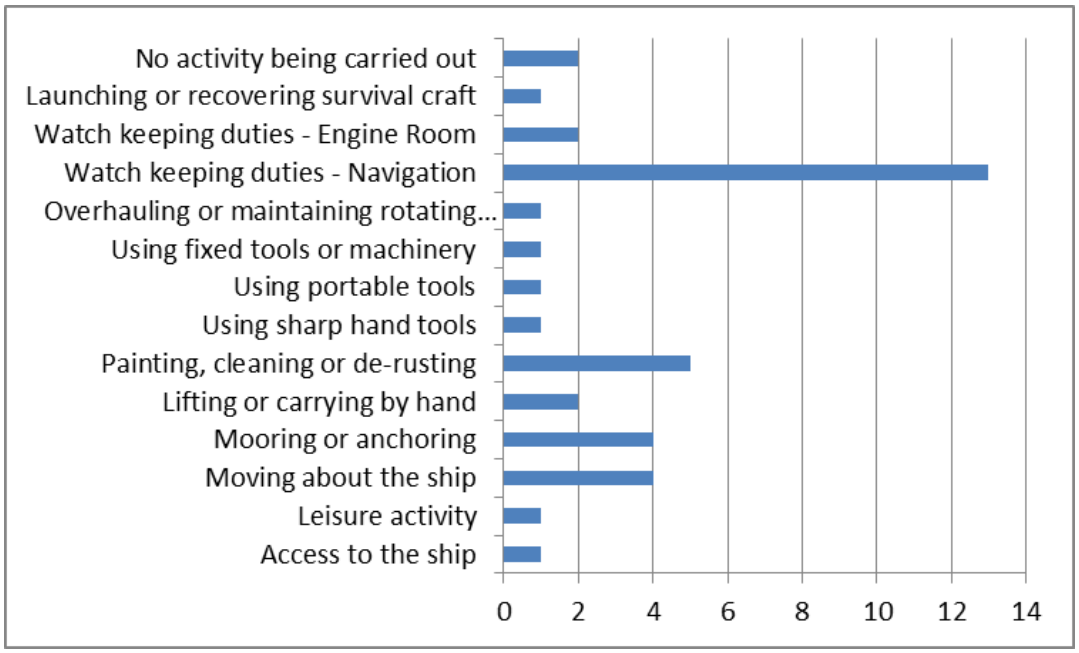
Other cargo ship
Whilst the ship lay at anchor a fishing vessel collided with the ship causing minor paintwork damage.

Commercial yacht
Whilst the yacht lay at anchor at night another yacht was observed to drag anchor in the direction of the yacht. After attempts to communicate with the other yacht failed the yacht's thrusters were used and the main engines were made ready for immediate manoeuvring.

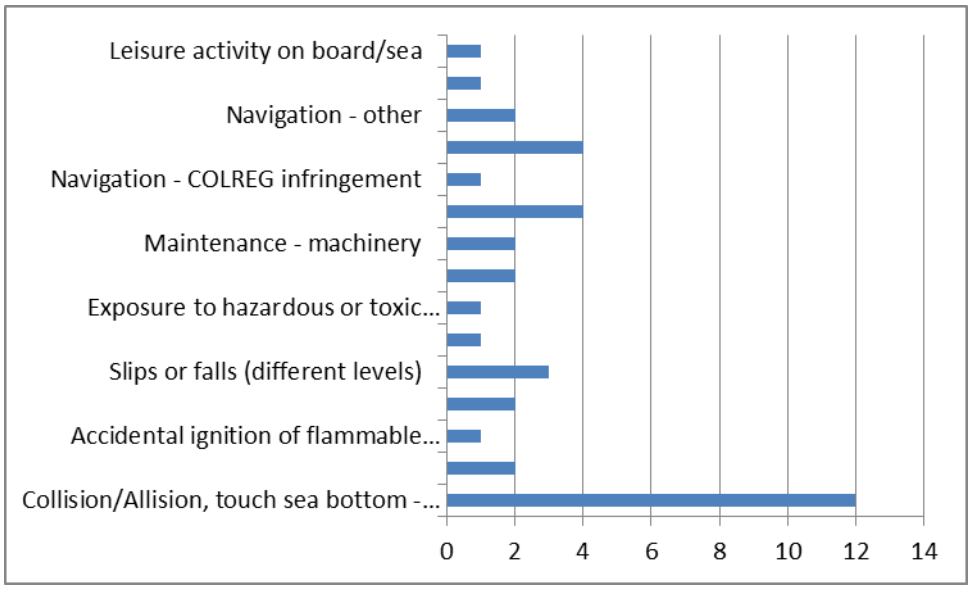
The other yacht was not responding to the situation or to communications. The yacht launched a tender boat to aid manoeuvring the other yacht away.

The other yacht passed clear down the yacht's side.

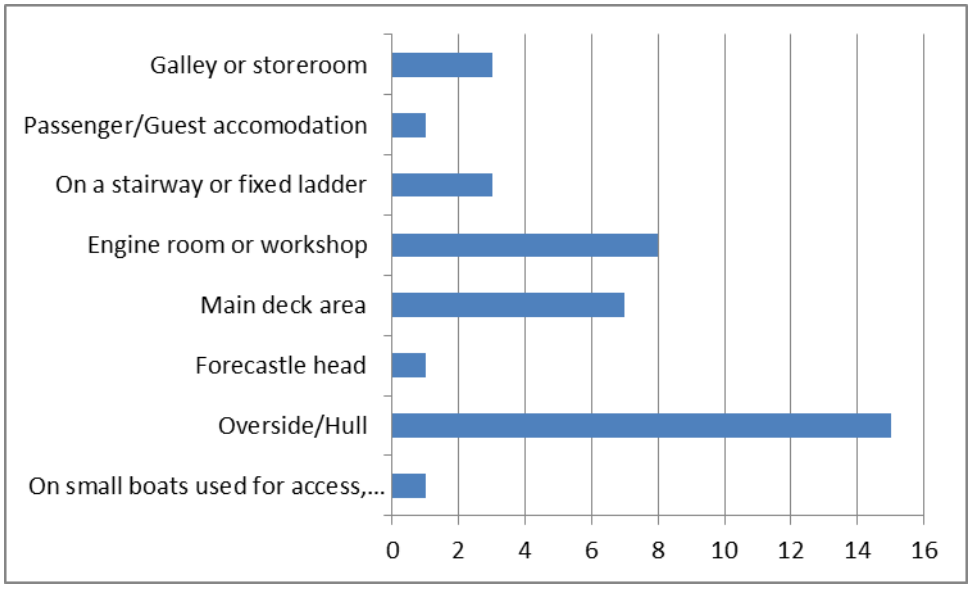
9.2 Incident Chart Representations



2018 Incident Activities



2018 Incident Types

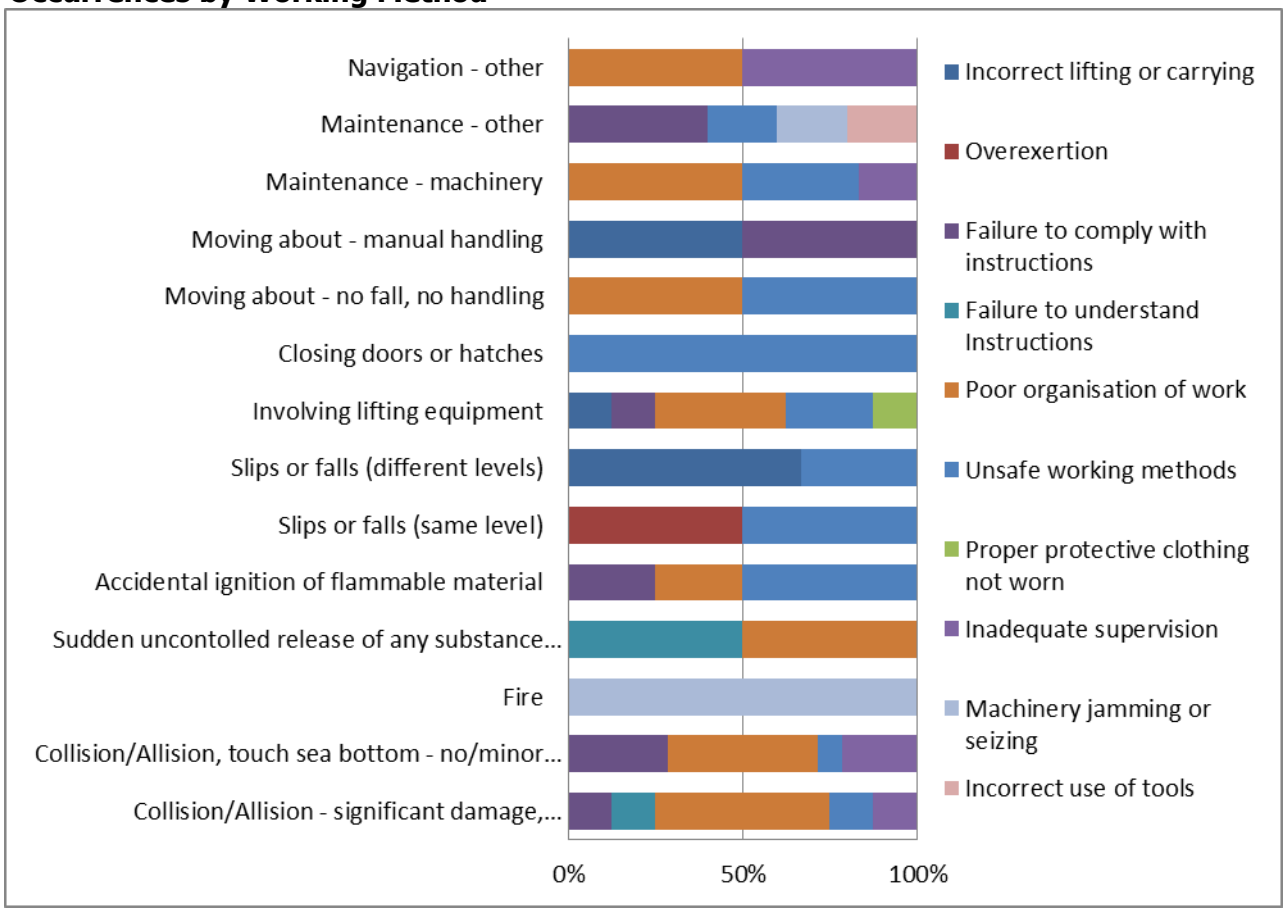


2018 Incident Places

Chapter 10 – Breakdown of Occurrences in 2018 by Cause

The following charts represent a breakdown of all the occurrences by cause divided into several categories represented on the ARF Form. Determination of the various causes is following 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 causes across different categories**.

10.1 Occurrences by Working Method



In 2018 the predominant working method cause has been attributed to "poor organisation of work" followed closely by "unsafe working methods".

Seafarers should plan their work and safety precautions adequately and avoid taking shortcuts in order 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.

"Poor organisation of work" stresses the need for effective planning and execution with good communication. Where "poor organisation of work" led to a collision or grounding this highlights the need for effective bridge team management.

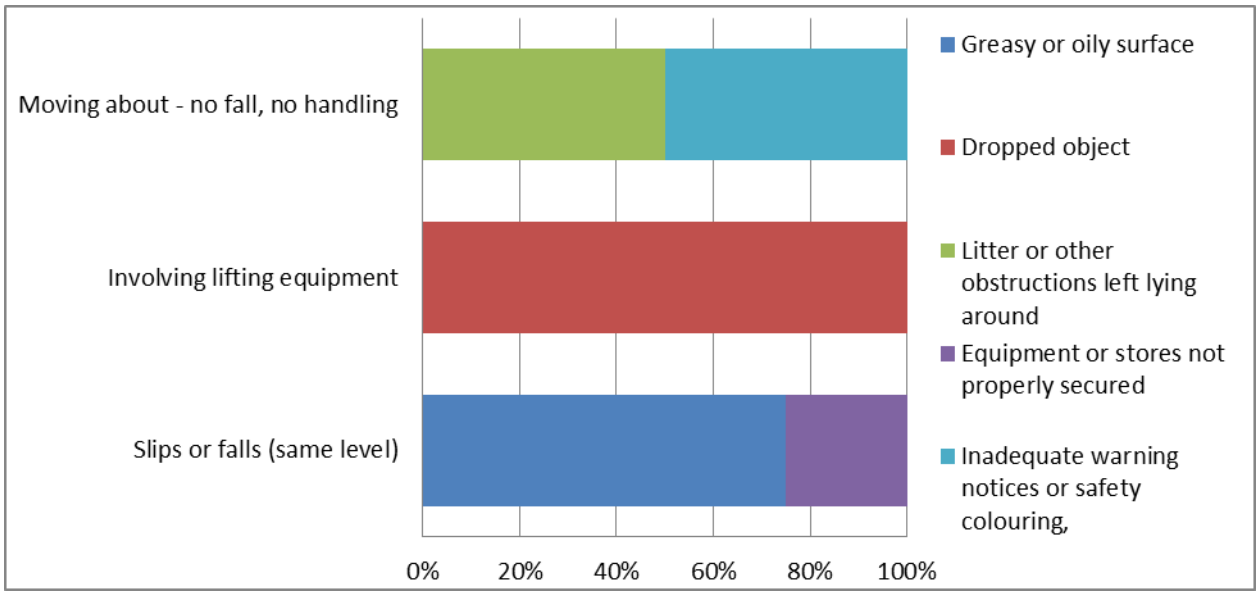
10.2 Occurrences by Ship Access

No cause attributed to ship access occurred in 2018.

All personnel boarding a vessel are required by the regulations to use the means of access provided. The master is required to ensure that a safe means of access is provided to the vessel at all times and to ensure that it is maintained in a safe condition. Everyone intending to board or leave the vessel should be strongly encouraged by the ship's staff to use the safe means of access provided even if a shortcut appears to be an easier or shorter journey.

Crew members joining the vessel from a launch boat are strongly encouraged to wear appropriate lifejackets and only consider the transfer under suitable conditions taking into account the weather and vessel motion.

10.3 Occurrences by Movement about the Ship



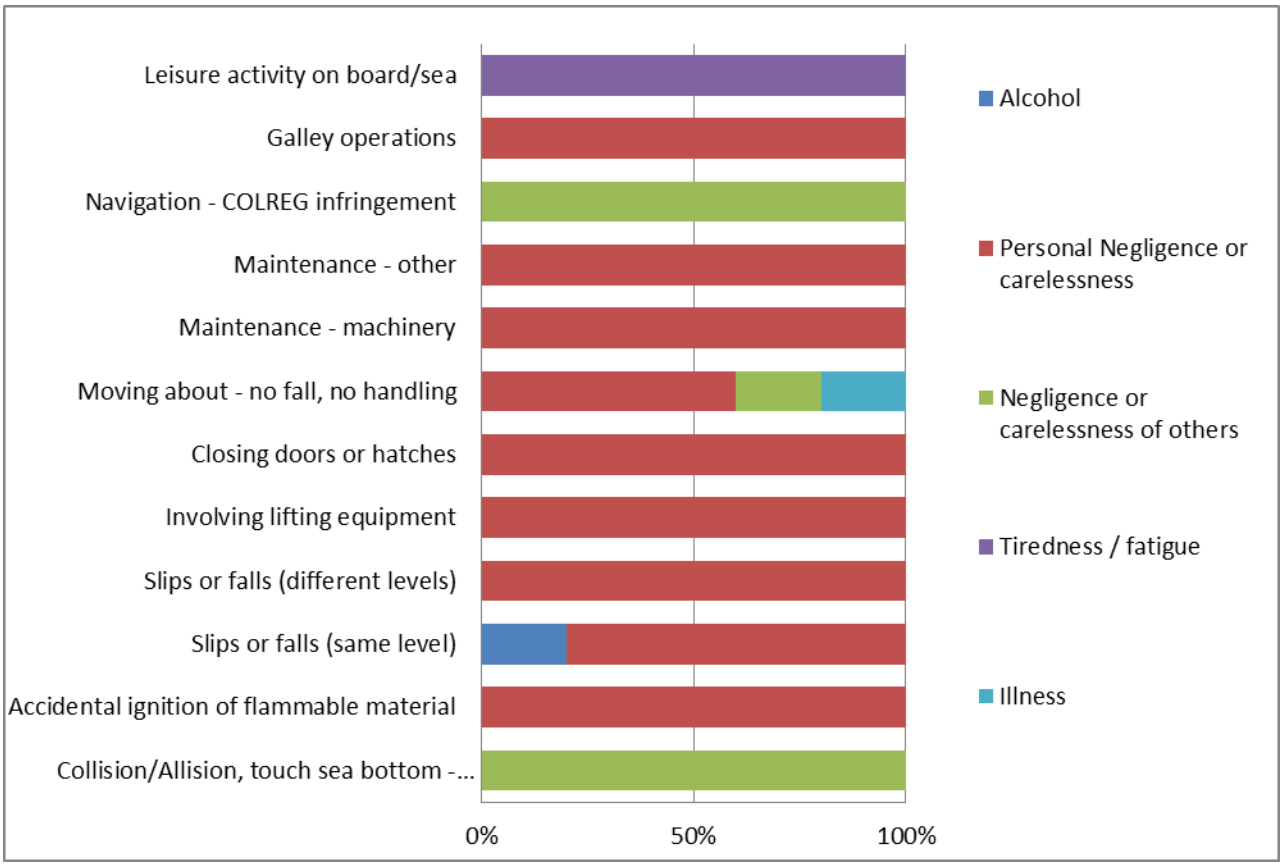
In 2018 "greasy or oily surface" was the predominant cause associated with moving about the vessel.

Crew members should also take note of warning signs highlighting risks and dangers. Slips and falls on slippery surfaces was the predominant cause in 2018. Crew members should be aware of any associated risks of slipping when moving about the ship under various conditions.

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.

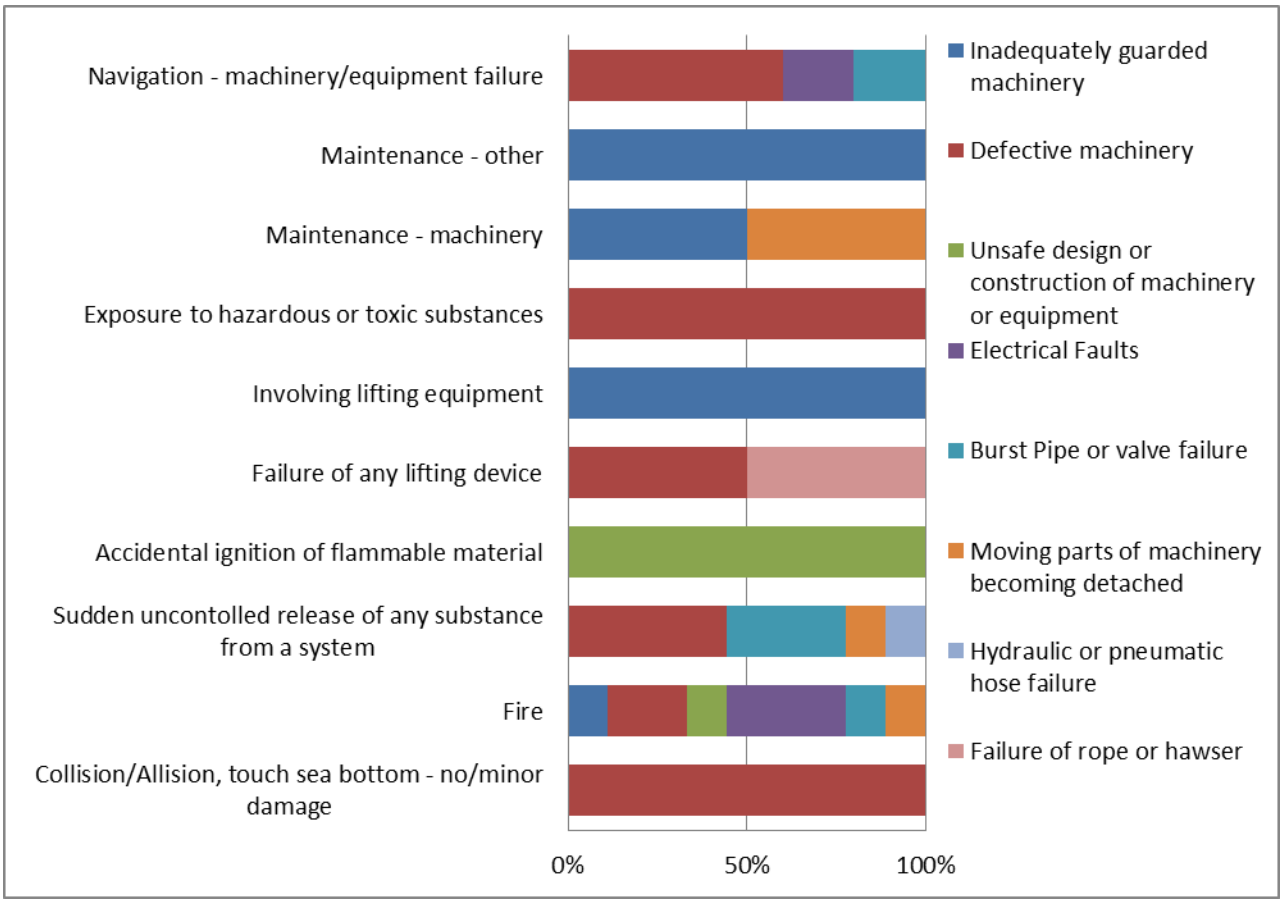
Injuries sustained through unprotected openings can be avoided by effective barriers, signs and communication.

10.4 Occurrences by Human Factor



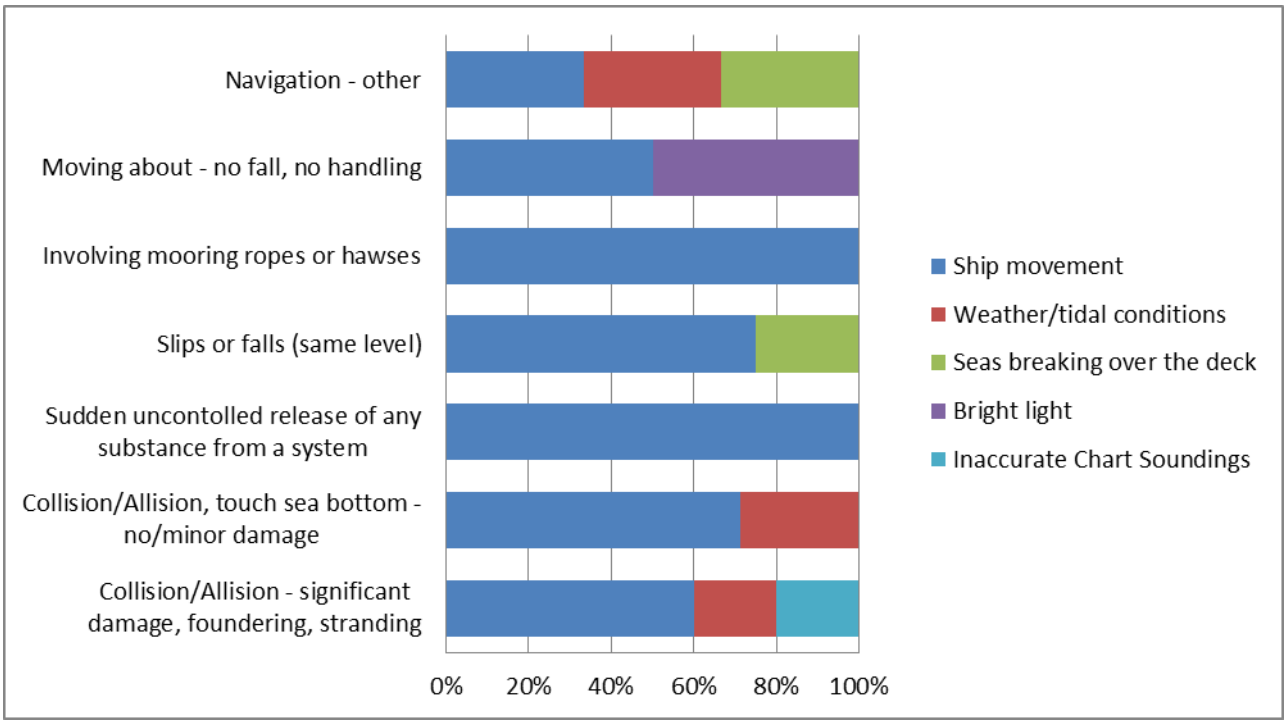
In 2018 the predominant human factor cause has been attributed to "personal negligence or carelessness". By "human factor" we mean the act or omission of a person to do something that leads to the occurrence happening. This stresses the need for adequate knowledge and training associated with the particular work activity, for the crew member to be made aware of any associated risks and for crew members to pay attention to what they are doing.

10.5 Occurrences by Mechanical & Other Equipment



In 2018 the predominant mechanical & other equipment has been attributed to "defective machinery". Equipment failure stresses the need for effective inspection and maintenance to ensure they are in good condition and fit for purpose.

10.6 Occurrences by Other Miscellaneous Causes



In 2018 the predominant 'other miscellaneous cause' has been attributed to "ship movement". Crew members should take into consideration the movement of the vessel in the prevailing sea and weather conditions when planning and carrying out work activities. If the movement of the vessel is too great the work activity should not be attempted or consideration should be given to manoeuvring the vessel to reduce the vessel's movement to an acceptable level.

Chapter 11 – Conclusions

2018 saw less ARF reports submitted compared to previous years. Less casualty and accident cases were reported but 2018 saw a rise in the number of incidents reported. (Chapter 3.1)

The most prevalent cases in 2018 were cases involving collision/grounding (no/minor damage) and sudden uncontrolled release of any substance from a system. (Chapter 4.1)

Occurrences mostly happened when conducting Navigation Watchkeeping activities. The place where most occurrences happened was over-side/hull. (Chapter 4.2, 4.3)

The place where most serious injury occurred was in the engine room and on the main deck. Slips and falls (same level) caused the most serious injuries when moving about the ship (Chapter 5.4, 5.5, 5.6)

The most common minor injury involved cuts and the most common serious injury were fractures to major bones and loss of fingers. (Chapter 5.3)

The most common injury to seafarers involved injury to hands.

The ARFs received highlight the causes identified when occurrences happened. Below are the most common causes identified for each ARF cause theme (Chapter 10);

- Working method – poor organisation of work
- Mechanical and other equipment – defective machinery
- Movement about the ship – greasy or oily surface
- Ship access – none identified
- **Human factor – personal negligence and carelessness**
- Other miscellaneous causes – ship movement

Personal negligence and carelessness remains overwhelmingly prevalent throughout most of the reports received and therefore highlights the importance that seafarers must take care and pay attention to the task in hand.

Seafarers should not take any unnecessary risks with their safety in order to get the job done or take unsafe shortcuts in order to get the job done more quickly. Safety on board a vessel should be everyone's concern. Seafarers should be able to observe and monitor their own safety effectively and where possible the safety of those around them.

It is the responsibility of the master or skipper to ensure that all activities carried out on board are conducted safely, with an acceptable level of risk. Where vessels have technical managers ashore, then the technical

managers should ensure that the master or skipper is given the necessary support and resources on board to determine the risk and to reduce the risk to an acceptable level.
Seafarers should be aware of their own abilities and limitations and the limitations of the equipment they use. Seafarers should not attempt any work activity where they perceive the risks to be unacceptable. If the vessel has an appointed safety officer then he or she should be informed and the circumstances investigated.

Should unacceptable risks present themselves, then the work should not commence until the risks are investigated and measures introduced to reduce the risks to an acceptable level. Risk assessments are designed to be used for this purpose and are required by the ship's safety procedures to be used in specific situations. It is important to remember that if the risks cannot be reduced to an acceptable level then the work activity should not go ahead. Should this occur, then specialist advice should be sought.

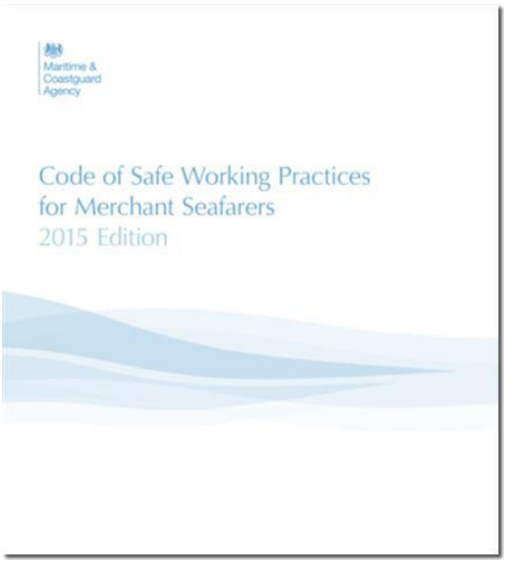
Where a vessel has established safety procedures, it is important that these are observed correctly. Appropriate personal protective equipment (PPE) should always be worn and used correctly. Any dedicated safety equipment should be regularly maintained and inspected before use.

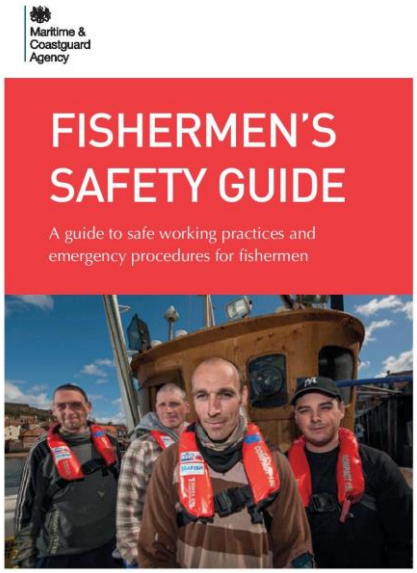
The Code of Safe Working Practices for Merchant Seafarers and Fishermen's Safety Guide (right) are valuable references depending on the ship type for most work activities conducted on board and should be consulted frequently. Risk assessments, Permits to Work and plain old common sense are all important factors in reducing the level of risk posed by work activities.

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 – www.iomshipregistry.com
- 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.

The information in this report can be provided in large print or on audio tape, on request.

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