

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

2012

Isle of Man Government Department of Economic Development







Published March 2013

## Introduction

The Isle of Man Ship Registry (IOMSR) is committed to helping seafarers, managers, owners and operators concerned with all Manx vessels 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 to submit a report on what has occurred.

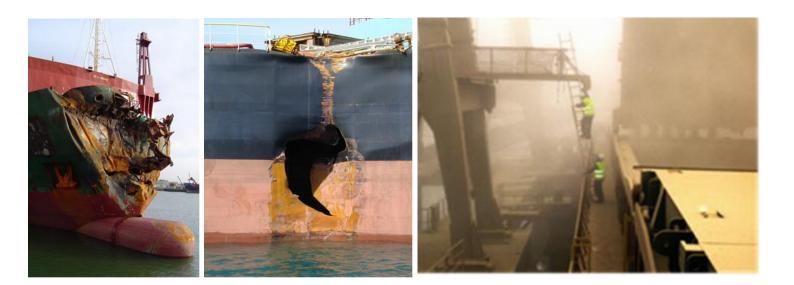
From these reports we can alert the shipping industry about areas and activities where any additional safety controls may be necessary and hopefully prevent similar occurrences from happening again.

We also aim to produce statistics based on report findings. Where any trends are identified we can work with shipping companies and other organisations in an effort to reduce these occurrences on board Isle of Man vessels.

The reporting scheme is reliant upon masters, skippers or operators reporting as accurately and in as timely a manner as possible. To submit a report or if you have any questions then please contact us at:-

Isle of Man Ship Registry, Department of Economic Development, St George's Court, Upper Church Street, Douglas, IM1 1EX, Isle of Man, British Isles

Tel +44 1624 688500 Fax +44 1624 688501 Email: <u>marine.survey@gov.im</u>



www.iomshipregistry.com

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## 1 What is an Occurrence?

An 'occurrence' is classed as 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, hatchcover, 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. If there is any doubt then report to IOMSR.

## **2 Reporting Occurrences**

#### 2.1 Who has to Report

The master, skipper or technical manager of any Manx registered vessel wherever they may be. 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 shorebased 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 and 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.

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

Isle of Man Government	Accident Report Form					
Isie of Man Government						
Name of 5	Ship: -	IMO No.	IMO No.			
Date of Accident: -	Location of the Ship	at the time of the Occurrence				
	-					
Classification of the Occurrence (County, Accident or Incident)*						
Detail	s of Personnel Involved is	the Casualty				
Number of persons Killed						
Number of Persons Injured						
Was the Accident caused mainly by						
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It is also recommended that a brief statement is included in the Official Log Book narrative section.

When reports are received the IOMSR decides whether or not an investigation is warranted. Not all occurrences are investigated, 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 SOLAS ChI Reg 21 using the guidance contained in IMO Resolutions A.849(20) and A.884(21). 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 any further investigation is warranted. This is called a 'preliminary examination'. When a preliminary examination is complete, the Isle of Man Ship Registry will decide if it is appropriate to conduct further investigation.

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 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 Reports Published in 2012

None.

#### 2.6 Investigations by IOMSR in 2012

Type of Vessel	Nature of Casualty
Oil Tanker	Working on deck in heavy weather - Death

#### 2.7 Investigations by external investigation body on Isle of Man vessels in 2012

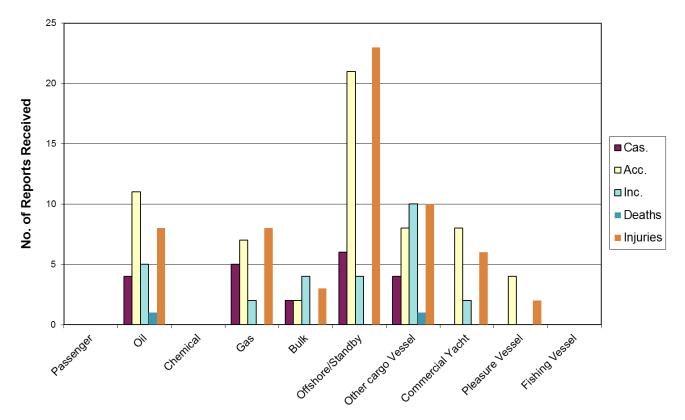
None.

# **3 ARF Reports Received in 2012**

In 2012 the IOMSR received a total of 109 ARF reports from Isle of Man registered vessels. There were no reported occurrences from foreign flagged vessels in Isle of Man territorial waters in 2012. The table below shows the number of reported occurrences by type in 2012 and the preceding 4 years.

	2008	2009	2010	2011	2012
Casualties	9	15	8	16	21
Accidents	25	26	49	39	61
Incidents	1	16	12	16	27
	35	57	69	71	109
Collision, foundering or Stranding	3	7	13	18	19
Fire	6	3	5	7	6
Explosion	1	-	-	-	1
Pleasure Vessel: Explosion, collapse or					
Bursting	-	-	-	-	-
Pipe Systems: Explosion Collapse or					
Bursting	-	3	1	1	2
Sudden uncontrolled Release of any					
substance from a system or pressure vessel	2	3	1	1	7
Accidental Ignition of Flammable material	1	-	-	-	-
Electrical Short Circuit or Overload	-	-	-	-	-
Failure of any Lifting device	1	3	2	3	1
Failure of any Access Equipment	-	-	-	-	2
Involving Access to or from the ship	1	2	1	2	2
Slips or Falls (same level)	4	3	7	5	12
Slips or Falls (different levels)	2	7	3	6	11
Involving mooring Ropes or Hawses	2	4	7	2	5
Involving Lifting Equipment	3	4	1	1	5
Exposure to hazardous or toxic substances	-	-	2	2	1
Man Overboard	-	2	5	2	-
Electric Shock	-	-	-	1	-
Violence to the person	2	-	-	1	2
Other	7	16	21	19	33
Total	35	57	69	71	109

The graph below represents the 21 casualty cases, 61 accident cases, 27 incident cases and includes 2 deaths and 60 people injured on different types of vessel in 2012.



The IOMSR recognises that the previous chart may not reflect the total number of incidents recorded by vessels and reported to their technical managers using the vessel's own incident reporting procedure. The majority of incidents reported to technical managers are therefore presumed to be very minor.

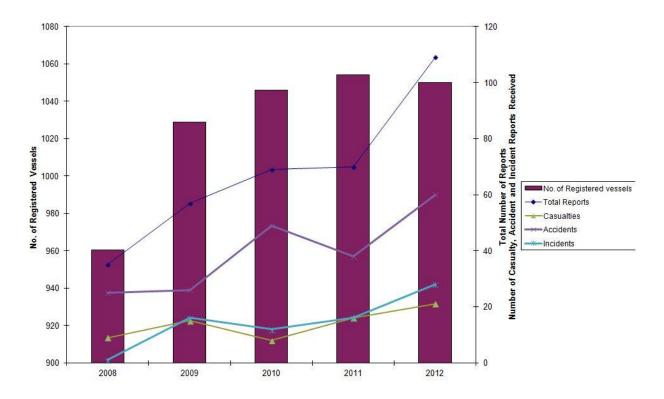
There were no reported occurrences from foreign flagged vessels in Isle of Man territorial waters in 2012.

## 3.1 ARF Fleet Comparison – Total Fleet

The table below shows occurrences as a percentage of the total Isle of Man registered fleet over 5 years. Isle of Man registered vessels include merchant ships, small ships, commercial yachts, pleasure vessels, fishing vessels, and demise ships.

Year	2008	2009	2010	2011	2012
Casualties / Fleet Size	0.9%	1.5%	0.8%	1.5%	2.0%
Accidents / Fleet Size	2.6%	2.5%	4.7%	3.6%	5.7%
Incidents / Fleet Size	0.1%	1.5%	1.1%	1.5%	2.7%
Total Occurrences / Fleet Size	3.6%	5.5%	6.6%	6.6%	10.4%

The graph below shows a comparison between the number of reports received and the number of all Isle of Man registered vessels over the last 5 years. The total number of vessels on the Register each year is calculated as an average from the total number of vessels each month.

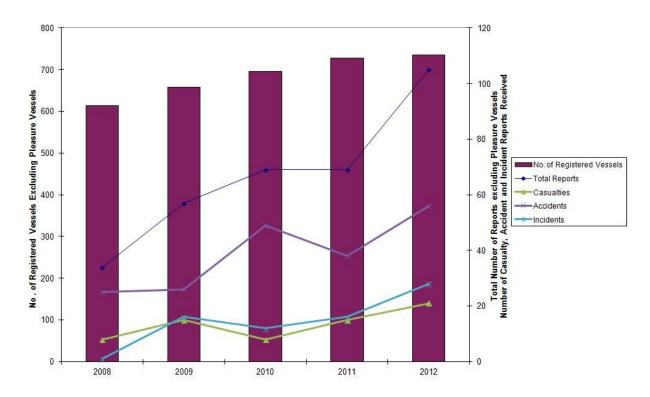


## 3.2 ARF Fleet Comparison – Total Fleet (Excluding Pleasure Vessels)

The table below shows occurrences with total Isle of Man registered fleet (excluding pleasure vessels) over 5 years.

Year	2008	2009	2010	2011	2012
Casualties / Fleet Size	1.3%	2.3%	1.1%	2.1%	2.9%
Accidents / Fleet Size	4.1%	4.0%	7.0%	5.2%	7.6%
Incidents / Fleet Size	0.2%	2.4%	1.7%	2.2%	3.8%
Total Occurrences / Fleet Size	5.5%	8.7%	9.9%	9.5%	14.3%

The graph below compares the number of ARF Reports received with the number of Registered Vessels (excluding Pleasure Vessels) over a period of 5 years.



# 4 Analysis of ARF Reports Received in 2012

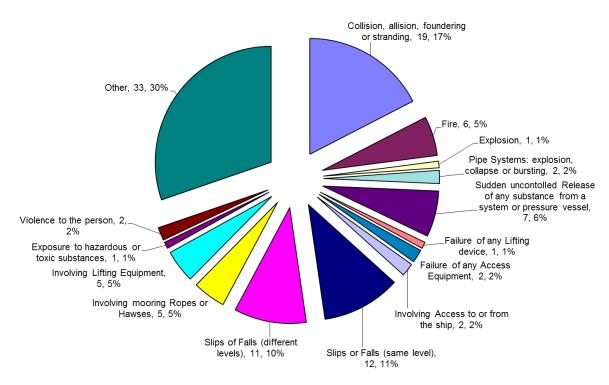
The table below summarises the condition the vessels were in at the time of the occurrence.

	Total Occurrences		Cases i	Cases involving		
	Inc	Acc	Cas	Injury*	Death**	
Berthed to quay/Ship Yard	5	20	4	20	0	
At Anchor/Anchoring/Weighing Anchor	2	7	4	7	0	
Mooring/Unmooring	1	5	0	1	0	
Making Way in Port/Confined Waters	11	5	6	5	1	
Making Way Open Sea	6	15	7	13	1	
Stopped – Drifting/DP	2	9	0	9	0	
Total	27	61	21	55	2	

\*in some cases more than one person may have been injured in the same case.

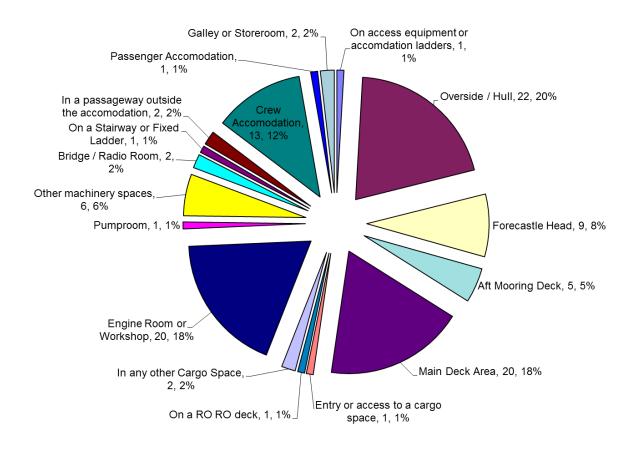
\*\* Where a case involves deaths and injuries, this is counted once under a death case.

## 4.1 Type of Occurrences

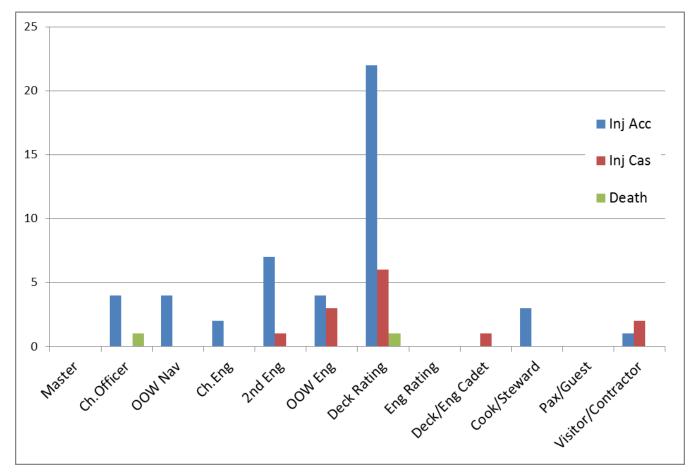


The chart above shows that in addition to the 'Other' category the majority of occurrences were slips/falls and collisions/groundings. The 'Other' category includes occurrences such as general maintenance injuries with tools, medical illness, injuries from incorrect manual handling, trapped fingers in doors or hatch lids, Main Engine defects (overheating, shutdown, high exhaust gas temperatures), steering gear failure whilst in river, water ingress and waves breaking onto the vessel in heavy weather.

#### 4.2 Place of Occurrences



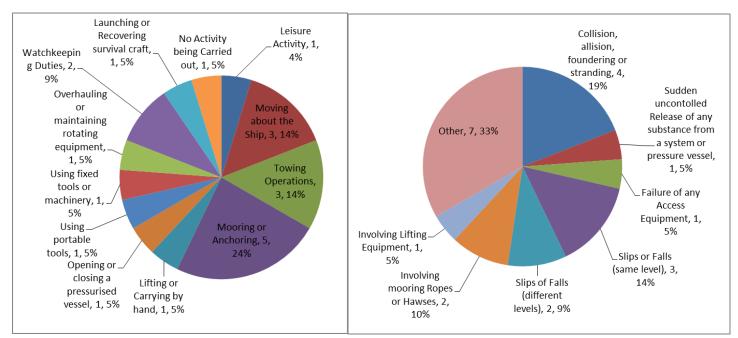
#### 4.3 Number of Injuries and Deaths by Rank



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# 5 Casualties in 2012

A total of 21 Casualties were reported in 2012. The 21 Casualty cases are outlined in the charts below.

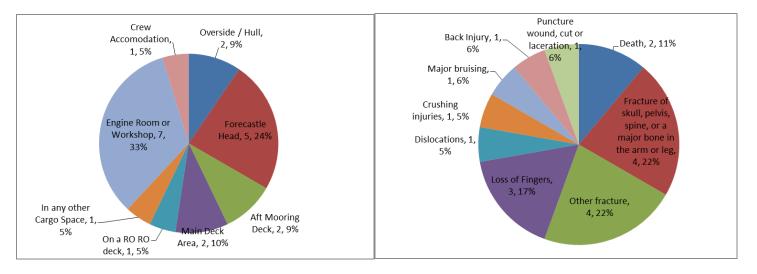


## 2012 Casualty Activities

## 2012 Casualty Types

**2012 Casualty Places** 

## 2012 Casualty Injuries



## 5.1 Brief Summary of All Casualties in 2012

#### 1 Oil Tanker

Three crew members were injured, one fatally, while working on deck in heavy weather attempting to secure a forecastle vent head that had broken loose.

 $\succeq$  This case was the subject of an Isle of Man casualty investigation.

#### 2 Gas Carrier

The vessel was anchoring following sea trials after maintenance to the main engine. As the vessel was approaching the planned anchoring position the vessel's starboard quarter collided with an anchored bunker barge causing significant structural damage. Navigation error was the cause. No injuries or pollution were incurred.

#### 3 Gas Carrier

The vessel anchored in the planned anchorage position. Soon after anchoring operations were completed the vessel was hit by another vessel manoeuvring in the anchorage area. Significant structural damage was sustained. No injuries or pollution were incurred.

#### 4 Offshore Vessel

As the vessel was passing between two breakwaters in dense fog and strong tide the master observed the vessel was rapidly setting towards one of the breakwaters. When attempting to manoeuvre the vessel away using the thrusters the vessel made contact with a breakwater causing structural damage to the vessel.

#### 5 Other Cargo Ship

A crew member was in his cabin during heavy weather with the vessel rolling heavily when he lost his footing and fell against the edge his bunk breaking his ribs.

#### 6 Other Cargo Ship

A crew member was walking on the main deck prior to mooring when he was observed to collapse and fall over. Despite crew trying to revive him the crew member died on board – suspected natural causes.

#### 7 Offshore Vessel

As the vessel was approaching the berth a crew member caught 3 fingers between the counter balance and securing lug when opening a hatch lid to retrieve extra mooring lines from the fo'c'sle store room. Significant crushing injuries were sustained to his fingers.

#### 8 Oil Tanker

A crew member was carrying out maintenance to a portable air operated lubricator. After removing the air hose the piston shaft moved causing a severe laceration to his finger.

#### 9 Gas Carrier

An external engine contractor was walking in the engine room whilst carrying an auxiliary engine turbo charger. The contractor tripped whilst walking and landed heavily on his arm, fracturing his arm.

#### **10 Offshore vessel**

The vessel was proceeding to sea in heavy weather when a large bang was heard and water ingress alarms sounded. The vessel was stopped where an investigation showed water ingress leading to a winch room from an open man hole cover. It was also noticed that the moon-pool door securing mechanism had failed causing the moon-pool door to fall into its closed position under gravity (breaking its wire stoppers) and puncturing an adjacent cofferdam. The crew were able conduct a hull inspection and retrieve the protruding moon-pool door by use of the onboard ROV equipment.

#### 11 Other Cargo Ship

As the vessel was departing port an electrical cadet was securing an electrical cable in the engine room when he decided to climb down a fixed ladder. As he was climbing down he slipped and slid down the ladder. He caught his ring in a bolt which subsequently removed his finger from his hand.

#### **12 Offshore Vessel**

The vessel was towing an FPSO vessel when a large wave broke over the aft main deck. The large surge of water moved forward along the deck and entered the accommodation through an open main deck door and through a large air intake. The crew mustered and the vessel changed heading to aid the bailing out of water from the accommodation. The vessel later experienced engine problems due to surging and had to shut down the engines and later disconnect the tow.

#### 13 Gas Carrier

Whilst at anchor in heavy weather it was noticed the vessel was dragging its anchor. The master decided to change the vessel's anchorage position. When weighing anchor it was noticed the vessel had fouled its anchor. Whilst assessing the situation 3 consecutive waves broke onto the fo'c'sle deck striking 2 crew members injuring them both. Medical evacuation by helicopter was required for one of the crew.

#### 14 Other Cargo Ship

A P&I Club surveyor was surveying a cargo hold where he fell between the side of the cargo hold and the vertically stored tween decks breaking his leg. The surveyor ignored the temporary barriers put in place to prevent personnel getting too near the edge of the hold.

#### **15 Bulk Carrier**

Following launching and recovery and recovery of the vessel's rescue boat to test a newly installed wire rope, the rescue boat was being lowered onto the boat pedestal when the boat slipped off the hook and fell to the water. The boat fell 8m to the water with a crew member still in the boat. The crew member suffered significant injuries and was eventually transferred to paramedics ashore using the ship's crane.

#### **16 Offshore Vessel**

Whilst mooring a crew member attempted to free a stuck mooring line by putting his arm through the gap between the bottom of the bulwark and main deck. The mooring line freed itself with the vessel's motion and struck the crew member breaking his arm.

#### **17 Gas Carrier**

Whilst unmooring a crew member was injured when tension came onto the line made fast to the tug boat trapping the crew member's hand between the line and a bollard causing injury.

#### 18 Oil Tanker

Whilst manoeuvring in port limits with a pilot on board the vessel proceeded to conduct a swing to port with the aid of tug boats. During the swing the vessel's stern made contact with a buoy causing the vessel's propeller to become entangled with the buoy's mooring chain. The vessel proceeded to the berth with the aid of the tug boats only.

#### 19 Oil Tanker

Whilst making way in heavy weather the vessel experienced very high temperatures from one of the main engine units and loss of compression in other engine units. The vessel diverted to the nearest port for urgent repairs.

#### 20 Bulk Carrier

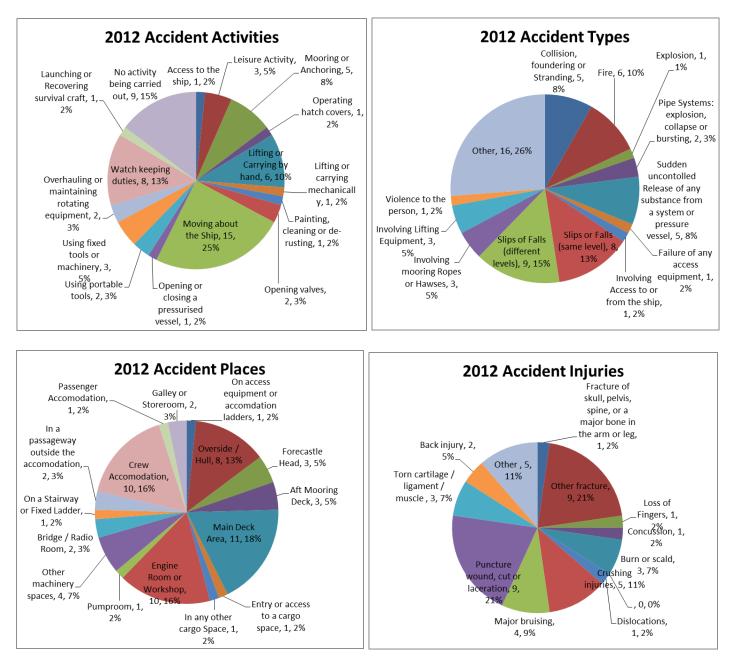
An engineer was draining a main air bottle. Whilst looking into the plastic sight glass the sight glass exploded into the engineer's face causing many deep lacerations narrowly missing his eye.

#### 21 Other Cargo Ship

Whilst conducting wood work using a circular saw in the workshop the crew member accidently cut the top off two of his fingers.

# 6 Accidents in 2012

A total of 61 accidents were reported in 2012. The 61 accident cases are outlined in the charts below.



On some occasions more than one injury occurred during the same accident. The majority of injuries from accidents are puncture wounds, cuts, lacerations and 'other fractures'. In the majority of these cases the cause was attributed to personal negligence.

The majority of injuries sustained follow the same trend as the previous year. This stresses the need for seafarers to be more careful, safe working practices are properly followed and equipment is in good working order.

#### 6.1 Brief Summary of Selected Accidents in 2012

#### **1** Pleasure Vessel

A crew member was gaining access to the vessel from a tender boat using a rope ladder. As the crew member neared the top of the ladder a rung snapped and the crew member fell back into the tender boat injuring himself.

## 2 Other Cargo Ship

The vessel was alongside in port in strong winds when a number of mooring lines parted. The master ordered the crew to prepare additional mooring lines to be deployed in the interests of vessel safety. Whilst preparing an aft spring line two crew members were injured when they were struck by a mooring line parting.

## 3 Commercial Yacht

An engineer was sent to the bow thruster room to check if there were any oil leaks. The vessel was rolling and pitching moderately in the prevailing sea conditions. As the engineer was moving about in the thruster room when he lost his balance and fell into the bilge causing minor fractures.

## 4 Offshore Vessel

A crew member was involved in working alone manually lifting a heavy hose during cargo operations. Following his work he complained his back was sore and requested medical attention and was sent to the doctor when the vessel arrived in port.

#### 5 Offshore Vessel

Whilst moving about the engine room an engine rating fell through an open man hole left unprotected by other crew members causing minor injuries.

## 6 Oil Tanker

Whilst conducting tank cleaning operations a crew member suffered a scalding injury to the lower part of his body whilst tank washing with hot sea water.

#### 7 Other Cargo Ship

A deck officer was moving about the ship in a cargo hold where he slipped from the access ladder and fell 5m to the deck suffering back injuries.

#### 8 Oil Tanker

When recovering a fire wire by hand, the wire slipped and crushed a crew member's finger between the wire and ship's rail. The crew member suffered crushing injuries to his fingers.

#### 9 Other Cargo Ship

A crew member was injured whilst repairing a grease gun unit in the engine room workshop. One of the safety covers had been removed to observe the action of the piston. When holding the grease gun upright air was applied to it forcing the piston down which struck the crew member's fingers causing severe lacerations.

#### **10** Commercial Yacht

During bunkering operations the plan was to fill the tank to 70% capacity. At 60% on the gauge the gauge ceased to increase with pumping. Pumping continued when the gauge suddenly read

97%. Bunker oil was observed emerging from breather pipes pumping was ceased. Most of the oil was contained on deck but some entered the harbour water.

## **11 Offshore Vessel**

During mooring operations a large wire rope ferrule was lifted using a crow bar so another crew member could pass a strop through the ferrule. During lifting the crow bar slipped and the ferrule fell onto a crew member's hand causing crushing injuries to his fingers.

#### **12 Commercial Yacht**

A crew member was working to free a drive motor from an on board crane. When the motor came free it fell onto the crew member's hand causing crushing injuries to his fingers.

#### **13 Pleasure Vessel**

A small section of rope lighting overheated and set fire to a net curtain in the main salon. The fire alarm sounded and the fire was extinguished quickly using portable fire extinguishers.

## 14 Bulk Carrier

Whilst the vessel was manoeuvring in an anchorage area and engineer was moving about the engine room when hot water sprayed from a defective O-ring on a main engine jacket water cylinder and scalded him.

#### **15 Bulk Carrier**

Whilst the vessel was at anchor another vessel was observed to be manoeuvring too close to the vessel and subsequently made a minor collision with the vessel. The collision occurred despite efforts to attract attention and warn the other vessel of the close proximity.

#### **16 Gas Carrier**

Whilst loading an acetylene bottle on board as ships stores a crew member was handling the bottle by hand when he let it slip and fall onto his hand causing crushing injuries to his fingers.

## 17 Oil Tanker

Whilst in dry dock the chief engineer and company superintendent were moving about the engine room inspecting pipe systems. As the chief engineer was walking backwards inspecting the piping were he fell through some open gratings and fractured his ribs. The gratings had earlier been removed by ship yard staff.

#### 18 Other Cargo Ship

Whilst working on an air compressor's non-return valve a crew member was burnt when removing the valve without adequately draining the valve first.

## **19 Offshore Vessel**

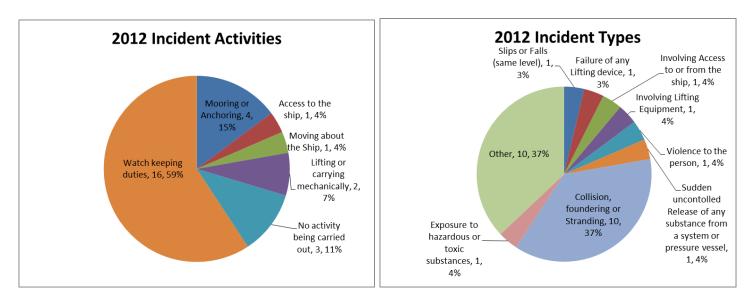
After loading ships provisions through the provision hatch a crew member trapped his hand under the provision hatch when closing the hatch causing crushing injuries to his fingers.

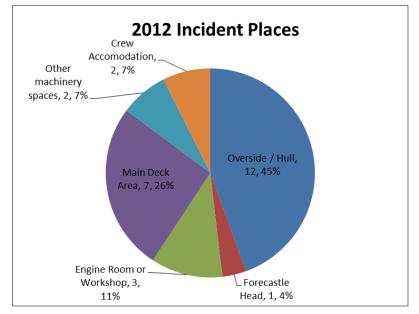
#### 20 Other Cargo Ship

A crew member was descending a ladder into a cargo hold where he slipped from the ladder and fell a short distance to the hold bottom. The crew member fractured his arm and was subsequently taken to a shore hospital.

# 7 Incidents in 2012

A total of 27 incidents were reported in 2012. The 27 Incident cases are outlined in the charts below.





## 7.1 Brief Summary of Selected Incidents in 2012

#### 1 Other Cargo Ship

A helicopter was approaching the vessel to land on the vessel's helideck for crew transfer. Whilst on final approach the helicopter's tail rotor made contact with the vessel's funnel. The pilots managed to land the helicopter safely without any injuries or further damage.

## 2 Other Cargo Ship

Shortly after unmooring the vessel was proceeding astern down the river before conducting a swing in a swing basin. Whilst proceeding astern the main engine suddenly stopped. The master allowed the vessel to drift safely by another moored vessel before dropping anchor and making fast a tug boat. An investigation found the main engine safety monitoring system had tripped causing the main engine to shut down.

## 3 Oil Tanker

Whilst parking the vessel's provision crane, the crane operator was having difficulty in positioning the crane onto the jib pedestal. It was then noticed that a number of strands of wire on the crane hoisting drum had parted and the weighted limit switch block had come off. An investigation found the block had caused chaffing to the wire over time which damaged the block and wire.

## 4 Gas Carrier

The vessel was alongside in port when a thief gained unauthorised access to the main deck via the vessel's fire wire. The thief threatened a crew member at knife point and stole some personal jewellery items before fleeing the vessel. The crew member was unharmed during the incident.

#### 5 Offshore vessel

The vessel was connected to a rig loading contaminated heating oil when it was reported there was a strong odour of the heating oil in the accommodation. The odour became overpowering for the crew members. External ventilation was shut off and the cargo hose was disconnected. The vessel proceeded at speed to port in order to ventilate the vessel. Atmosphere monitoring was carried out and crew instructed to wear CABA if on main deck. The cargo tank was purged with sea water to reduce LEL. The vessel arrived in port where an investigation was conducted by a specialist team.

## 6 Other Cargo Ship

The vessel was departing port transiting a narrow ship channel where the vessel experienced loss of steering due to the rudder being stuck on starboard 20 degrees. NFU steering was attempted but was unsuccessful. Full astern propulsion was engaged and the anchor let go. The vessel touched bottom but without damage or pollution incurred. The vessel was later manoeuvred back to port by tug boats for repair and investigation.

#### 7 Bulk Carrier

After unmooring the vessel proceed down river at 'dead slow ahead' speed. When approaching a large bend in the river large rudder orders were given. Despite the correct helm order applied the vessel proceeded straight ahead without turning and grounded on soft mud. No damage or pollution occurred. The vessel was later refloated and proceeded to sea following an inspection of the hull.

#### 8 Bulk Carrier

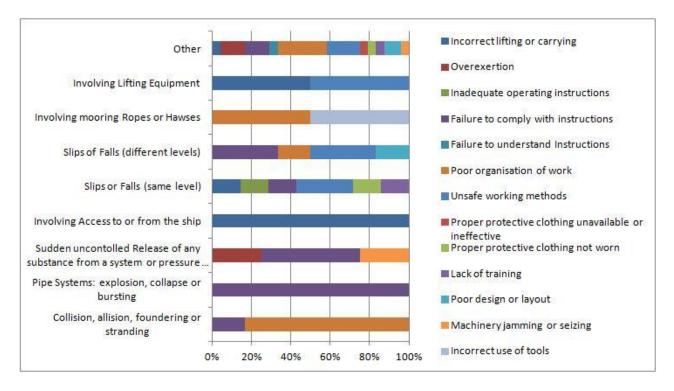
When the vessel arrived in port the terminal ordered that the shore gangway must be used instead of the ship's gangway. The shore gangway could only be set in position by moving one of the ship's liferafts. It was later noticed by a crew member doing rounds the liferaft had rolled off the deck, dropped into the water and inflated. An investigation found that the lashing wire used had been over tightened and parted.

#### 9 Other Cargo Ship

Whilst proceeding in a deep water route the vessel observed another vessel overtaking at close range. As the other vessel edged ahead it was observed close in sideways and eventually 'graze' the vessel along the length. No damage or pollution occurred.

## 8 Breakdown of Occurrences in 2012 by Cause

The following represents a breakdown of all the occurrences by cause divided into several categories represented on the ARF Form. Determination of the cause is following an investigation into the Occurrence by 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**.



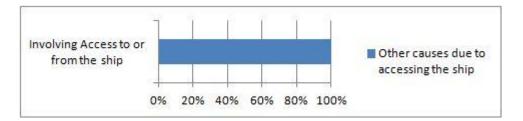
## 8.1 Occurrences by Working Method

The chart above shows that the predominant working method cause has been attributed to "unsafe working methods" and "failure to comply with instructions". "Failure to comply with instructions" can include failure to comply with the vessel's documented procedures or manufacturer's instructions.

Seafarers should avoid taking shortcuts in order to complete the job more quickly. This highlights the importance of effective work planning and 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. Stop and re-evaluate!

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.

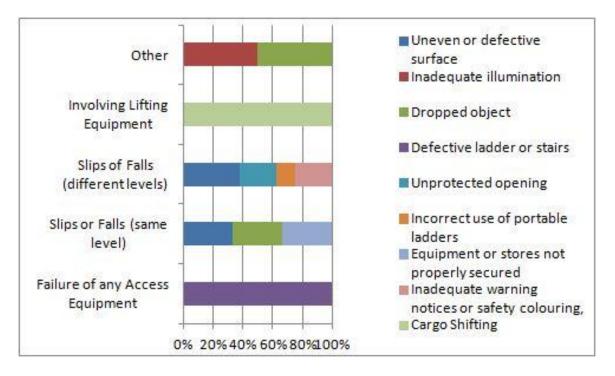
#### 8.2 Occurrences by Ship Access



The 'other' occurrence in the chart above relates to an incident where a helicopter transporting crew members struck the vessel's funnel with the tail rotor. Fortunately the pilot managed to land the helicopter with no injuries sustained to anyone.

All personnel boarding the vessel for legitimate reasons 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 and from 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 to use the safe means of access provided even if a short cut appears to be an 'easy' 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 conditions and vessel motion.

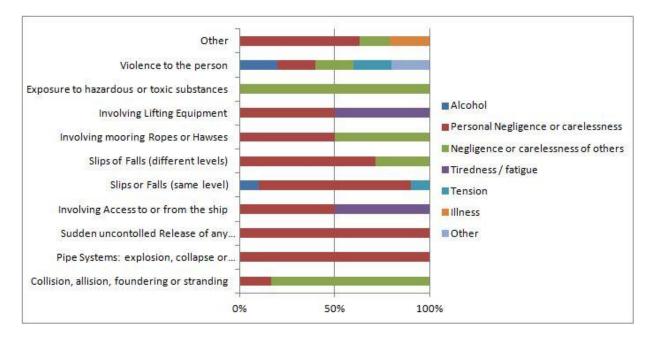


## 8.3 Occurrences by Movement About the Ship

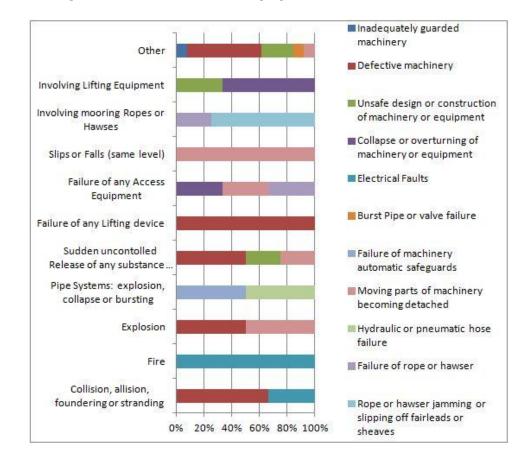
The chart above shows a variety of causes associated with moving about the vessel. Slips and falls on slippery surfaces are still a predominant cause of injuries. Crew members should be aware of any associated risks of slipping when moving about the ship under various conditions.

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

#### 8.4 Occurrences by Human Factor

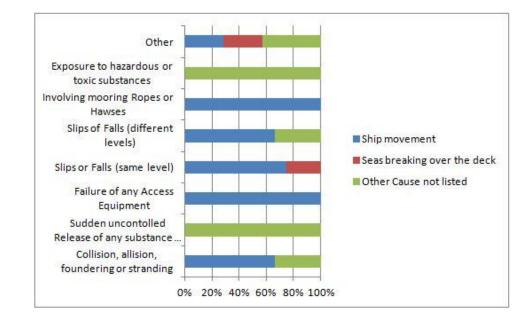


The chart above shows the predominant human factor cause has been attributed to "personal negligence or carelessness" followed by "negligence or carelessness of others". By "human factor" we mean the act or omission of a person to do something that leads to the occurrence happening. This stresses the 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 the crew member to pay attention to what they are doing.



#### 8.5 Occurrences by Mechanical & Other Equipment

The previous chart shows the predominant cause associated with mechanical equipment was defective machinery followed closely by moving parts of machinery becoming detached. This stresses the need for effective inspection and maintenance to ensure they are in good condition and fit for purpose. Electrical malfunctions were a significant source of small fires - several vessels experienced small fires as a result of lighting overheating.



## 8.6 Occurrences by Other Miscellaneous Causes

The previous chart shows that the predominant 'other miscellaneous cause' has been attributed to the ship movement. Crew members should take into consideration the movement of the vessel 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.

From the other cause not list listed this included the following:-

- Navigation cases involving restricted visibility in fog and inaccurate chart soundings
- A crew member's ring caught in a ladder rung
- A strong odour from the cargo in the crew accommodation
- A sight glass exploding in a crew member's face
- Pollution incidents from fuel oil hoses
- A liferaft falling from the deck into the dock water.

## 9 Conclusion

Despite best efforts it is an unfortunate fact of life that occurrences will always happen. 2012 saw less Casualties, Accidents and Incidents reported compared to the previous year.

Many of the ARFs received show that a large proportion of occurrences are attributed to the Human Factor whereby personal negligence and carelessness remains prevalent and therefore highlights the importance of effective care and attention. Occurrences involving slips and falls (same and different levels) features heavily each year, again highlighting the importance of effective care and attention.

2012 saw a significant number of cases involving hand/finger injuries and occurrences involving mooring operations. The hand/finger injuries primarily involved ladders, tools and crushing injuries. Crew members should take particular care where they place their hands. Due consideration should be given to the wearing of jewellery items such as rings and necklaces where these items can impose additional risk.

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. 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. If the vessel has an appointed safety officer then he or she should be informed and the circumstances investigated. 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.

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.

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 Seamen is always a valuable reference source 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 reevaluate.

#### Additional Information

- Manx Shipping Notice No. 3
- Code of Safe Working Practices for Merchant Seaman
- 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 <u>www.iomshipregistry.com</u>
- Contacting the Isle of Man Ship Registry email <u>marine.survey@gov.im</u>

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

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