



First Step to Preventing Marine Casualty

Marine Incident Newsletter



● Marine Incident ●

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.

- IMO Casualty Investigation Code 2.10 -



Ministry of Oceans and Fisheries

Korea Maritime Safety Tribunal



Introducing the Marine Incident Newsletter

Park Jun-Kwon,

Commissioner of the Korean Maritime Safety Tribunal

This newsletter was prepared to provide information on the marine incident reporting system, its objective and management in a more entertaining and familiar manner.

Although the marine incident reporting system was adopted in 2011, the frequency of reporting was low due to insufficient awareness of the system and concerns over criticisms and punishment. The marine incident reporting system is based on the participation of shipping companies and relevant officers, and the newsletter also aims to move forward with their cooperation.

The first issue of the newsletter provides information related to the marine incident reporting system and includes case studies of incidents reported by shipping companies and an interview with a captain. Furthermore, by adding a puzzle on maritime safety based on the information provided in the newsletter and preparing prizes for winners, we aimed to encourage interest and participation of subscribers.

The newsletter on marine incidents is prepared in cooperation with the Korean Maritime Safety Tribunal, shipping companies, and relevant officers. I look forward to your keen interest and active participation for further development of this newsletter.



What is marine incident reporting system?

In order to prevent marine accidents, the owner or operator of a ship shall inform the Chief Investigator of the Korean Tribunal of a near-miss that occurs in connection with the operation of the ship.

(Article 31-2(1) of the Act on the Investigation of and Inquiry into Marine Accidents)

- ★ As CI Code became effective in 2010, IMO recommended management of marine incidents to its member countries. Accordingly, the reporting system was stated in the domestic law in 2011.

★ Confidentiality of the identity of the reporter

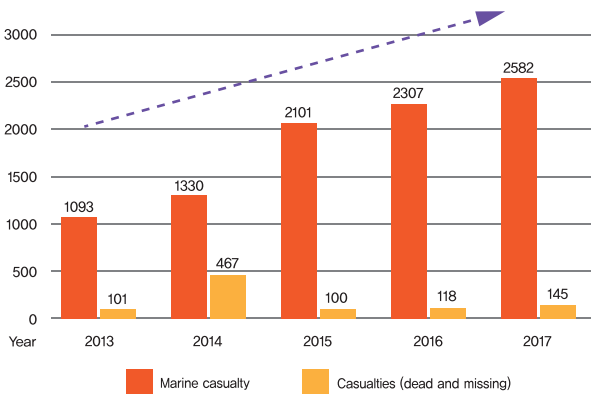
The Chief Investigator of the Korean Tribunal shall not disclose the identity of a person who informs of a near-miss, contrary to the person's intention. (Article 31-2(3) of the Act on the Investigation of and Inquiry into Marine Accidents)

**Contact to report : website www.kmst.go.kr
e-mail kmst_special@korea.kr**



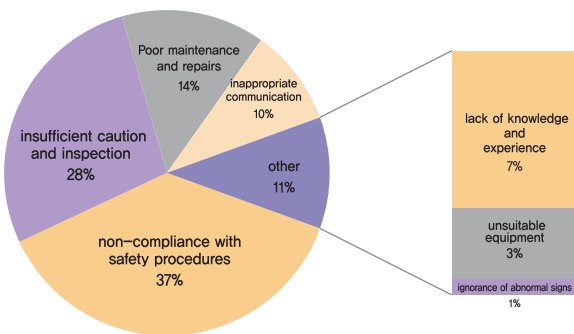
What are the Causes of Marine Incidents?

Marine casualty, which involve vessels and occur at sea or in inland waters, are mainly related to human injury, collision, stranding, capsized, fire and explosion. According to the statistics on Marine casualty of the Korean Maritime Safety Tribunal from 2013 to 2017, while the number of registered vessels is declining, both the frequency of Marine casualty and the number of casualties have increased.



According to the Heinrich Law, 29 minor incidents and 300 signals take place prior to a serious casualty. Therefore, if marine incidents are well managed preliminarily, it will contribute to preventing serious casualty greatly.

Analysis of main causes of marine incidents



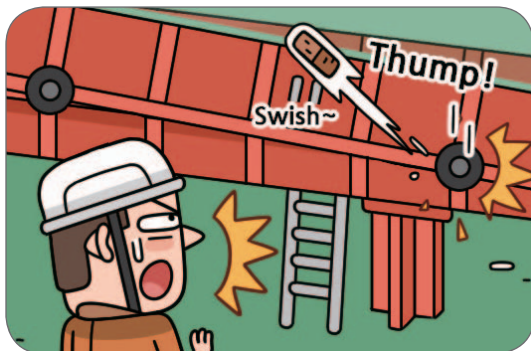
Non-compliance with safety procedures accounts for the largest share of 37 percent, followed by insufficient caution and inspection, poor maintenance and repairs, and inappropriate communication. Through this analysis, it is evident that keeping with the basic responsibilities such as compliance with safety procedures and through caution and inspection is the first step to preventing marine casualty.



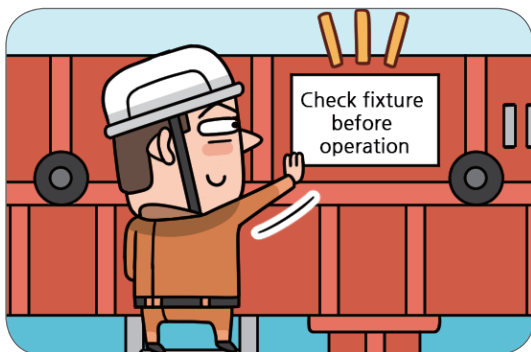
Case 1

Be careful when operating the hatch cover while sailing!

By not thoroughly checking the fixture when operating the hatch cover, the wheel came off the rail and nearly caused a human injury and vessel damage.



The hatch cover of the no.4 cargo hold was partially opened for cleaning and the wheel was fixed with a wooden wedge. After cleaning the cargo hold, the hatch cover was operated without removing the wooden wedge. The wheel went over the wooden wedge and came off the rail. The hatch cover was placed back to its place but if it had come off the rail and crashed onto the deck, the marine incident could have resulted in a human injury or vessel damage.



How did it happen? (Potential factors)

- Failure to remove the fixture of the hatch cover and check thoroughly
- Non-compliance to safety procedures such as partial opening of the hatch cover while sailing



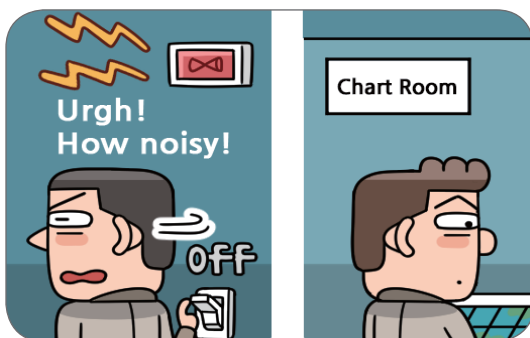
Must comply! (Preventive lesson)

- Comply with safety procedures (hatch cover should be fixed after opening it completely)
- Avoid partially opening the hatch cover and do not operate the hatch cover in bad weather conditions
- Post a sign reading "check fixture before operation" at the operation station of the hatch cover



Case 2 Don't ignore the alarm!

The vessel nearly collided with a fishing boat as the apprentice officer ignored the auto pilot alarm and the officer on duty was absent



As the 3rd officer and apprentice officer began their duty, the auto pilot alarm went off but the apprentice officer turned it off without reporting it. After about 3 minutes, the 3rd officer who had been away in the chart room to check the position of the vessel examined the auto pilot device. There was no movement in the rudder and the indicator was not working. After immediately reporting the situation to the captain, main engine was stopped and the anchor was dropped in emergency. It was a marine incident that almost led to a collision with a fishing boat that was about 1 mile away due to a loss of vessel control.



How did it happen? (Potential factors)

- Ignorance of the alarm without checking its cause
- Chronic safety negligence of the inexperienced apprentice officer who reset the alarm without reporting it
- Non-compliance with on-duty procedures of the officer on duty



Must comply! (Preventive lesson)

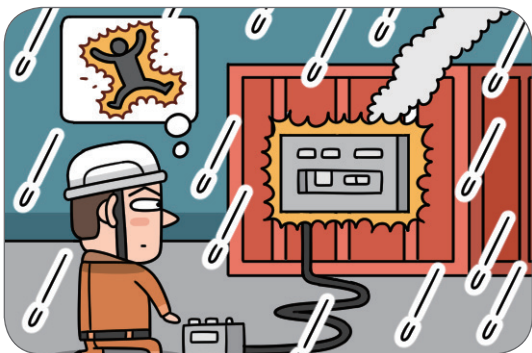
- All alarms that ring on the bridge should be reset after checking and correction by the officer on duty; report immediately to captain, if necessary
- Duty Officer should not stay in the chart room etc. for too long and conduct duty thoroughly (including alarm monitoring)
- Manage all alarms that ring on the bridge and make a list of alarms



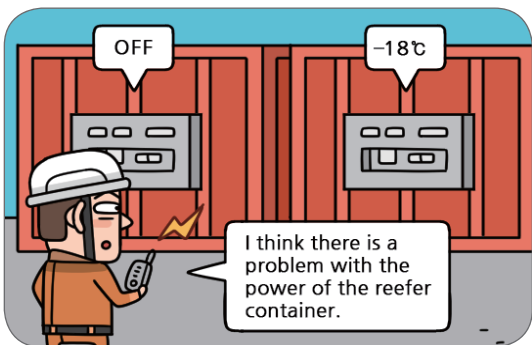
Case 3

Be careful when using electrical devices when raining!

The quartermaster almost got electrocuted while checking the power of a reefer container as the earth fault alarm of the 440V feed panel was ignored in the engine room



The quartermaster who was inspecting a reefer container in the rain saw that the breaker of the receptacle box was tripped so he pulled down then pushed up the circuit breaker. It was a marine incident where if the power had not been down, he would have been electrocuted by the 440V outlet due to the rain.



How did it happen? (Potential factors)

- While high-voltage power supplies need to be inspected by the officer on duty (3rd engineer or chief engineer), an inexperienced crew attempted to turn the on/off switch especially in the rain
- Although earth fault was detected by the 440V feed panel in the engine room, no immediate action was taken to find the cause or make corrections



Must comply! (Preventive lesson)

- When there is a power problem including high-voltage power supplies, contact the engineer in charge and have an experienced personnel conduct an inspection
- When raining, make sure to check the feed panel alarm before handling high-voltage power supplies on the deck and operate only when there are no extraordinary signs
- When a 220/440V feed panel alarm is activated, find the cause immediately and take actions to correct it



Interview with Captain

Shipping Company (operator) : HAS Management

Name : Kim, Bong-gon



Q How have you been marine incidents on board?

A During the monthly safety & quality meeting, I check with each department for details related to marine incidents and send them to the company. I try my best to identify even the minor details.

Q What do you think was the cause of the 'marine incident where the ship nearly crashed with a fishing boat as a result of a malfunction of steering gear' that you submitted?

A It was during a duty change. When the alarm was activated, the apprentice officer turned it off without checking and reporting and the 3rd officer was working in the chart room. These days, many officers seem to ignore a series of small signals like the alarm. Thankfully, when the ship is on automatic steering, officers have to check the gyro and auto pilot more frequently, and that is how the fishing boat was spotted and we avoided an accident.

Q How can improvements be made?

A That is an easy but difficult question. The mindset of the crew is important. The procedure for alarm list management on bridge was established, and when the alarm is set off, duty officer must check thoroughly which alarm rang before resetting it.

Q Is the prevention measure being followed well?

A Yes. When the alarm is ringing, the officer on duty must check the alarm and report to the Captain, if necessary.

Q Is the marine incident reporting system helpful?

A At first, it was tiresome and I had doubts on the frequency of the occurrence of marine incidents. But as can be seen in this case, my crew had become used to resetting the alarm without further inspection because no accidents had taken place before. And no one had corrected this. It made me realize that a serious casualty is just around the corner. Of course, the Captain is also accountable for not correcting bad habits. Since then, voluntary and active reports on marine incidents have increased.

Q Is there anything you would like to add regarding marine incidents?

A Marine incident reporting is a valuable system that aims to establish a culture of safety. I hope that there will soon come a day of zero accidents for all ships through active use of the reporting system.



Maritime Safety Poster

2018
NOV
November
Information on
Prevention of
Marine Casualty

Marine Casualty with the highest mortality rate?

Safety accident during operation



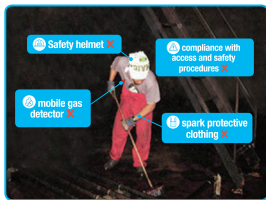
Safety accident in the recent 5 years

0.44 deaths per accident!

Fishing operations



Inboard operations



Even a momentary negligence can lead to serious casualty!



Ministry of Oceans and Fisheries
Korea Maritime Safety Tribunal

2018
DEC
December
Information on
Prevention of
Marine Casualty

In 5 years, **509** fire and explosion!
49 deaths!

87% of accidents caused by
negligence in inspection
and repairs

- ✓ Improper maintenance of cargo vapor
- ✓ Inattention to electric sparks
- ✓ Unlicensed welding and flame operations
- ✓ Poor maintenance and damage of main engine
- ✓ Faulty repair of fuel oil pipe of the main engine
- ✓ Short circuit of electrical wiring
- ✓ Smoking onboard without permission
- ✓ Insufficient management and leakage of LPG for cooking



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