



First Step to Preventing Marine Casualty

Marine Incident Newsletter



● Marine Incident ●

Accident that is likely to pose a hazard to the safety of ships and people or the marine environment, if measures for rectification or improvement are not taken with respect to the structure, equipment, or operation of a ship

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





Joining the 3rd Maritime Incident Newsletter

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Marine incidents typically result from a combination of habitual 'minor factors' such as complacency, carelessness, negligence, impatience, and inattentiveness.

According to the Heinrich's Law, for every 300 marine incidents (no damages), there are 29 minor accidents and 1 major accident. This means if marine incidents are well managed, major accidents can be prevented. To this end, it is important that the crew communicates well, and that on-site inspections to check whether work is being conducted safely are carried out.

As pilots and pilot boats are closely exposed to numerous changes within the port daily, we will also always remember the importance of these 'minor factors' and do our best to prevent marine incidents. I hope that everyone involved in marine activities of safely protecting and managing the beautiful sea will actively utilize this system, and I ask for your continued interest and participation in the Maritime Incident Newsletter as well.



What is Maritime Incident Reporting System?

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

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

★As the CI Code came into effect in 2010, the International Maritime Organization (IMO) recommended member countries to manage marine incidents. In compliance, the marine incident reporting system was included in the Korean law.

★ Identity Confidentiality

The Chief Investigator of the Korean Tribunal shall not disclose the identity of the person who informs of a marine incident without his or her consent.

(Article 31-2(3) of Act on the Investigation of and Inquiry into Marine Accidents)



Report to : **website** www.kmst.go.kr

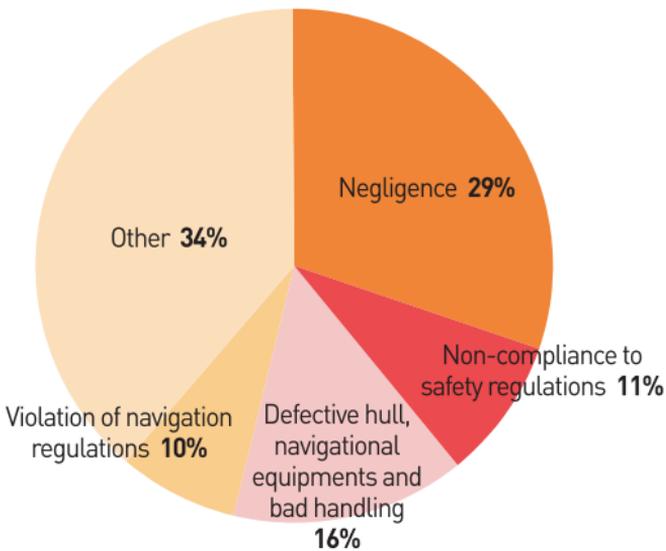
e-mail kmst_special@korea.kr



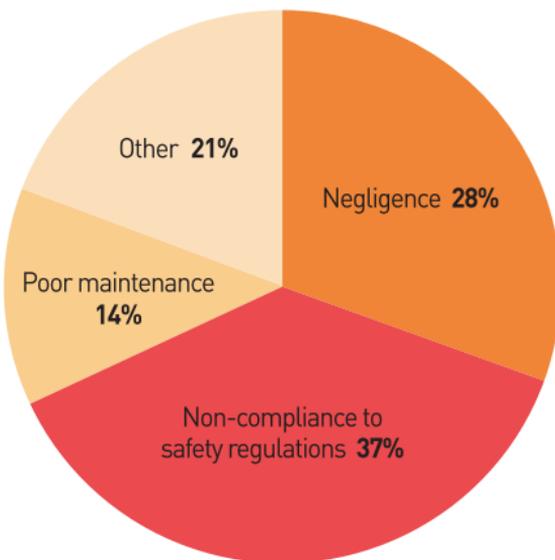
Statistics

Last year saw a total of 2,671 marine accidents (69.1% - 1,846 involving fishing boats, 3.8% - 68 involving non-fishing boats). There were 102 casualties and missing persons (89 persons from fishing boats and 13 persons from non-fishing boats), which is a fall of 43 persons (29.7%) compared to the previous year. The causes of the casualties were on-board safety accidents (52 persons), capsizing incident (25 persons), and collision (19 persons).

Causes of Marine Accidents (as of 2018)



Causes of Marine Incidents (2012-2017)



Analysis Result of Causes of Marine Accidents

Negligence and non-compliance to safety regulations, which accounted for the largest share of causes of marine incidents, also made up a large share of causes of marine accidents in 2018.

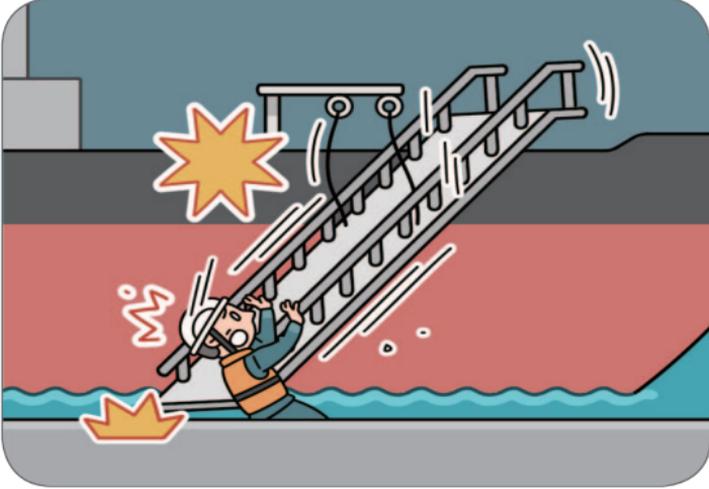
As causes of marine incidents and marine accidents align, if causes and signs of marine incidents are preemptively monitored and systematically managed, rather than ignored, the link to occurrence of marine accidents can certainly be cut off in advance.



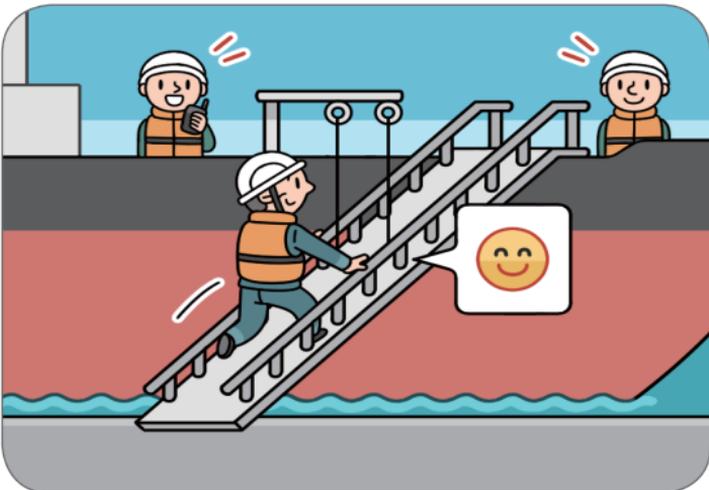
REAL CASE

Crew on duty should be present when the pilot boards or leaves the ship!

Accident that plunged the pilot into the water as a result of a sudden drop of the gangway



A pilot approached the ship preparing to depart at night but there were no crew present. The pilot began to climb the gangway alone when suddenly the gangway dropped. The pilot fell into the water between the outer wall of the pier and the side of the ship. He was wearing an automatic inflatable life vest that kept him afloat. Fortunately, the pilot was rescued by a crew after 20 minutes.



How did it happen? (Potential factors)

- Poor installation and maintenance of gangway
- Absence of crew on duty when the pilot boarded the ship



Must comply! (Preventive lesson)

- Safe installation and maintenance of gangway
- Presence of crew on duty as the pilot boards the ship
- Compulsory use of life vests for pilots when boarding and leaving the ship



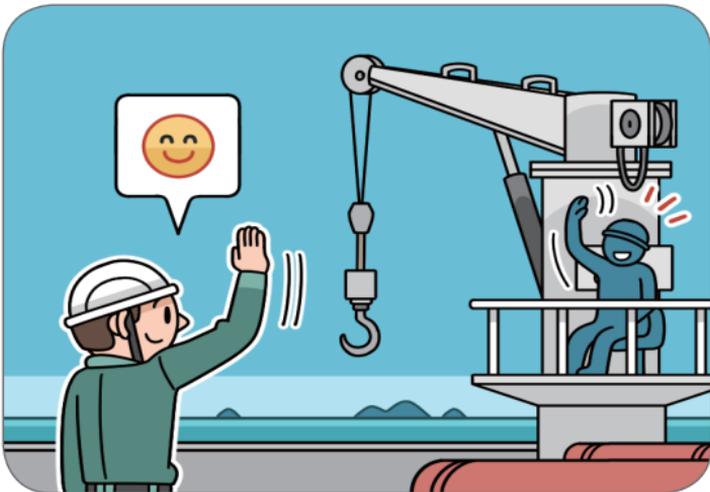
CASE 1

Hand signals should be checked when using the crane!

Near-miss that almost resulted in an injury of a worker by a hook while using the crane



While adjusting the position of the hook of a crane for loading food, the deckhand signaled to lower the crane boom but the boatswain, who was operating the crane, misunderstood it as a signal to lift the boom and moved the boom to the left side. It lightly struck a worker who was preparing the loading on land on the head. If it had struck with greater force, it could have been a marine incident that resulted in a serious head injury.



How did it happen? (Potential factors)

- Misunderstanding of hand signals between crane operator and the signaler
- Inappropriate on-site control (worker located closely to the hook)



Must comply! (Preventive lesson)

- Confirmation of hand signals when using a crane or winch
- Examination of the crane movement and removal of workers from the path of cargo using TBM prior to operation



CASE 2

Ladders should be used for unreachable heights!

Near-miss of a fall from trying to replace a fire detector in an E/R casing at an unreachable height on a railing



An officer on duty was inspecting fire detectors at all locations on the ship as per the regular inspection schedule. He noticed that a detector located at the top of the E/R casing was broken and climbed onto the railing to replace it. If he had slipped or fell from losing balance, it would have been a marine incident resulting in a serious injury.



How did it happen? (Potential factors)

- Failure to use a ladder and a rope for fixture due to the inconvenience of bringing them to the site
- Negligent idea that it can be done quickly as the replacement is simple



Must comply! (Preventive lesson)

- Must comply! (Preventive lesson)
- For TBM prior to operation, use a ladder for safety when the operation is undertaken 1.5m above fixed floor.
- Keep in mind when using a ladder!
 - ① Keep both feet on the step and your body close to the ladder
 - ② Keep both feet on the step and grab the ladder with one hand



Interview with a Safety Manager

Shipping Company (Safety Management) :
G-Marine Service
Name : CHOI Geum-cheol



Q How are you managing marine incidents?

A We collect cases of marine incidents from ships, and those that need to be shared are informed to all ships every week. In addition, we create illustrations for major marine incidents every quarter to share with ships in an effort to reinforce their awareness of safety. We also develop improvement measures biannually by analyzing types and causes of marine incidents.

Q What is your opinion about the operation of Korea's marine incident system?

A I think it is the only system in the world that actively collects and analyzes marine incidents and share them with shipping companies (operators) at the national level. Furthermore, as it provides an opportunity to substantively share cases that were previously managed by each shipping company (safety manager) individually, it is not only mutually beneficial but also a good starting point of a virtuous cycle that brings marine incidents to the center of public discussions while focusing on preventive measures rather than punishments and criticisms.

Q What improvements can be made in terms of the operation of the system?

A There are yet limitations, for instance, in communication equipments, for ships to report directly. It is necessary to find an easier reporting method. Also, each company currently uses a different reporting format. This is an area that requires discussions and coordination of the industry in the long-term if we want to obtain consistency in the analysis of incident causes.

Q Do you have any recommendations as a safety manager?

A Prevention is the most definite way of reducing costs. I hope saving time or immediate cost reduction will not be a reason to compromise safety.



Basic Terms for Safe Shipping

- 1. Seaworthiness :** State of a ship equipped with necessary human and physical resources fit to undertake a sea voyage with probable safety
- 2. Stability :** Nature to restore the ship to the original upright position when it is inclined by an external force



Maritime Safety Quiz

- ① 00000 0000 automatically inflates when a person falls into the water. It has a device to be inflated once manually by blowing air into it with one's mouth.
- ② 000 is the connecting pathway to land after berthing.
- ③ When working on places higher than 1.5m from a fixed floor, 000 must be installed beforehand for safety.
- ④ In order to ensure safe navigation and facilitate communication between the shipping company and crew, all companies should appoint someone who has direct access to the senior management as 0000000.
- ⑤ To prevent major incidents in advance, continuous identification of marine incidents and 00 among the crew are important. Also, it is necessary to do on-site inspections to check what is being implemented well.
- ⑥ When using the crane, hand signals agreed through TBM must be confirmed before operation to prevent accidents arising from misunderstanding 000 00.
- ⑦ 0000 000 accounts for the largest share of causes of marine incidents.
- ⑧ 000 refers to the state of a ship equipped with necessary human and physical resources fit to undertake a sea voyage with probable safety.
- ⑨ When a ship is inclined due to waves, it tries to return to its original position as a result by 000.



● 10 Winners of the Maritime Safety Quiz in the 2nd Newsletter

KOH Gi-hwan (Pyeongtaek), PARK Young-ja (Busan),
PARK Hye-seon (Busan), BAE Ju-won (Mokpo), SON Se-gil (Changwon),
LEE Dul-suk (Ulsan), LEE So-jung (Ulsan), LEE Young-chang (Busan),
JEONG Hye-in (Yeosu), JOO Ga-young (Busan)

- **Submission :** Korean Maritime Safety Tribunal (www.kmst.go.kr)
- **Deadline :** July 30, 2019
- **Winner announcement :** 4th Newsletter publication, notified individually
- **Prize :** 50,000 won gift certificate (10 persons)



Contributions to the Publication

Korea Institute of Maritime and Fisheries Technology, Korea Shipowners' Association, Korea Maritime Pilots' Association, Korean Register, G-Marine Service, POSSM, NDSM, Has Management, SK shipping, SINOKOR, KLCSM