

# 2

## Large Claim Trends

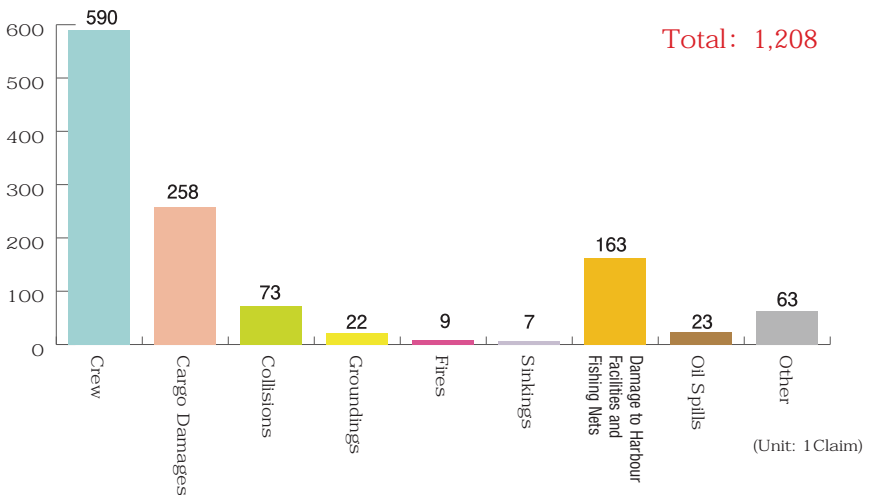
Let's look at what kinds of large claims are common, for ocean-going vessels and for coastal vessels.

### Ocean-going vessels

There were 1,208 large ocean-going vessel accidents during the study period, and Graphs 9 and 10 show how many of each category of accident occurred, as well as the amounts of insurance money for each accident category.

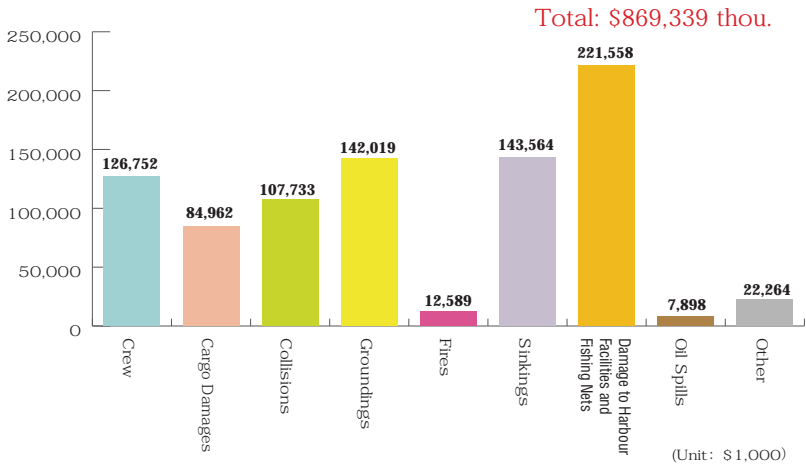
There were 590 crew claims, accounting for almost half of all incidents. This was followed by cargo damage (258 incidents) and damage to Harbor facilities and fishing facilities (163 incidents). The number of collisions, oil spills, groundings, fires, and ship sinking incidents were all far lower than the number of accidents of the types described above. However, in terms of insurance money, incidents of damage to Harbor facilities and fishing facilities came in first, at \$221,558 thousand followed by ship sinking incidents (\$143,564 thousand), grounding incidents (\$142,019 thousand), and crew claims (\$126,752 thousand).

### Number of Large Ocean-Going Vessel Claims by Accident Category



[Graph 9. Number of Large Ocean-Going Vessel Accidents by Risk Category]

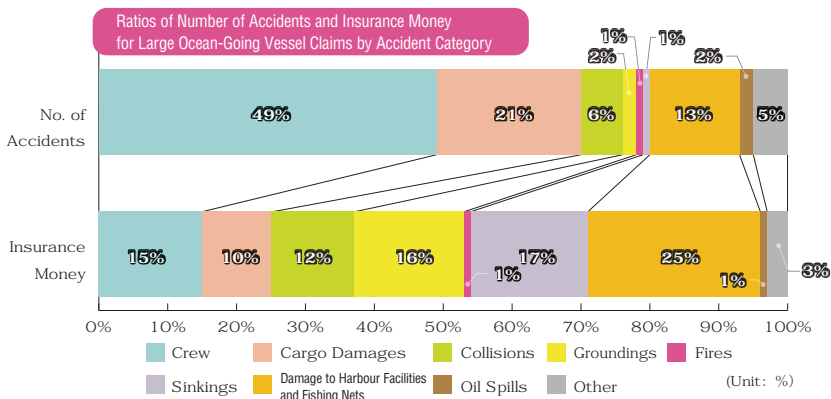
### Insurance Money for Large Ocean-Going Vessel Accidents by Accident Category



[Graph 10. Insurance Money for Large Ocean-Going Vessel Accidents by Accident Category]

Graph 11 shows the ratios of large ocean-going vessel accidents and insurance money by accident category. Crew claims accounted for 49% of all incidents, but crew claim insurance money accounted for 15%. This shows that although the number of incidents is high, the insurance money per incident is relatively low. On the other hand, groundings and sinking incidents account for 2% and 1% of all incidents, respectively, but they account for 16% and 17% of all insurance money, showing that the insurance money per incident is extremely high. Therefore, reducing the number of crew claims, which are extremely numerous, and preventing groundings and sinking incidents, which have high per-accident insurance money, are future issues which must be tackled to improve insurance results.

Damages to Harbor facilities and fishing facilities account for 13% of all incidents and 25% of all insurance money. This makes it the next most common accident type after crew claims and cargo damage. This, combined with the fact that this accident type accounts for the highest share of insurance money, indicates that accident countermeasures are needed.



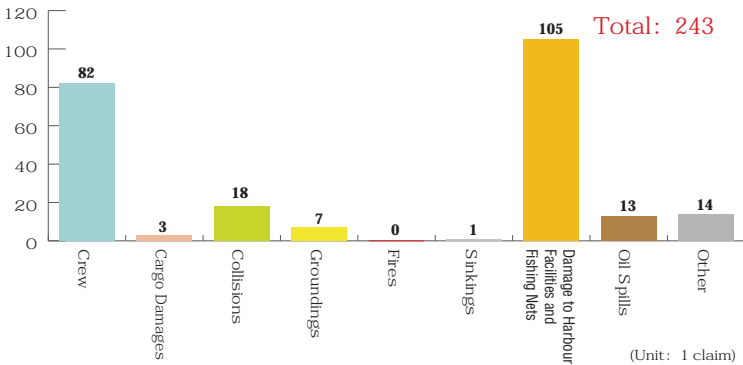
[Graph 11. Ratios of Number of Accidents and Insurance Money for Large Ocean-Going Vessel Accidents by Risk Category]

## Coastal vessels

There were 243 large coastal vessel accidents during the study period. Graphs 12 and 13, like those for ocean-going vessels, show how many of each category of accident occurred, as well as the amounts of insurance money for each accident category.

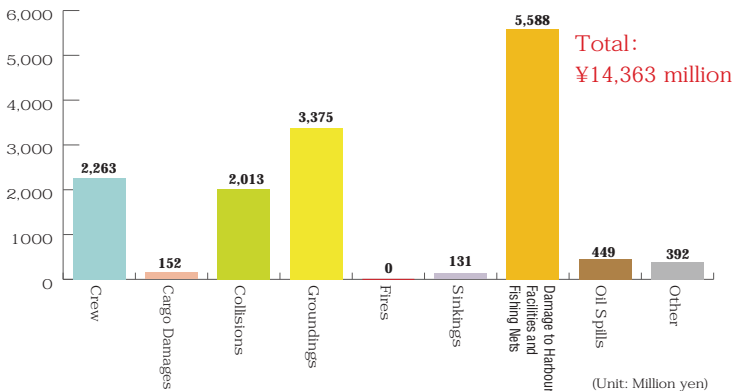
There were 105 incidents of damage to Harbor facilities and fishing facilities, accounting for almost half of all incidents, followed by 82 crew claims. The number of incidents other than damage to Harbor facilities and fishing facilities and crew claims was far smaller than the number of incidents in these two categories, numbering less than 20 each. The amount of insurance money was highest for damage to Harbor facilities and fishing facilities by an overwhelming margin, at ¥5,588 million. This was followed by groundings and collisions, which, though few in number, had insurance money of ¥3,375 million and ¥2,013 million, respectively. ¥2,263 million were also paid out for crew claims.

Number of Large Coastal Vessel Accidents by Risk Category



[Graph 12. Number of Large Coastal Vessel Accidents by Risk Category]

Insurance Money for Large Coastal Vessel Accidents by Risk Category



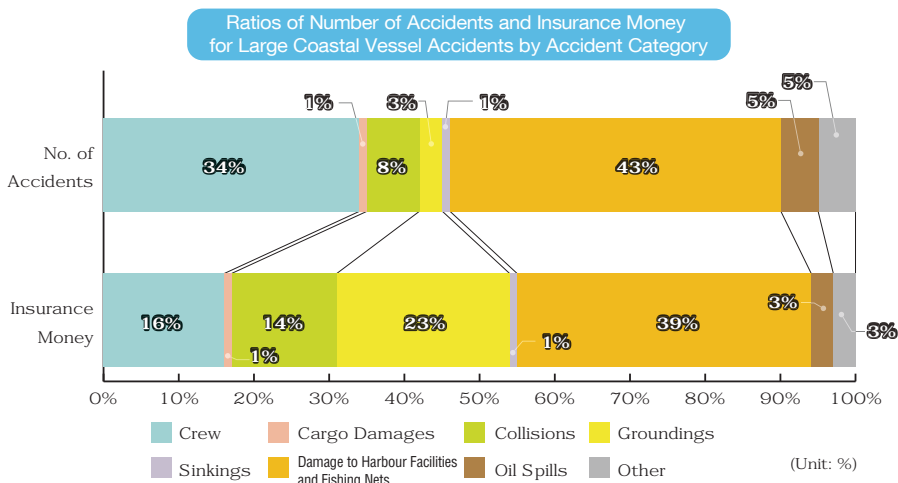
[Graph 13. Insurance Money for Large Coastal Vessel Accidents by Risk Category]

Graph 14 shows the ratios of large coastal vessel accidents and insurance money by accident category. Incidents of damage to Harbor facilities and fishing facilities account for 43% of large coastal vessel accidents and 39% of insurance money, making it the accident category to which the greatest amount of attention needs to be paid. The insurance money for sinking was made for one case alone, amounting to ¥131 million.

On the other hand, collisions and groundings account for relatively small number of 8% and 3% of all incidents, respectively, but they account for 14% and 23% of all insurance money, an extremely high per-incident insurance money. Therefore, reducing the number of incidents of damage to Harbor facilities and fishing facilities, which are extremely numerous and involve large insurance money, and preventing collisions and groundings, which have high per-incident insurance money, are future issues which must be tackled to improve insurance results for coastal vessels.

Crew claims accounted for 34% of all incidents, but crew claim insurance money accounted for only 16%. Compared to the ratio of accidents, the insurance pay-out ratio is low, but this category also requires close attention. One of the reasons that the insurance money ratio is lower compared to ocean-going vessels is that Japanese crew members are enrolled in seamen's insurance, and the range of incidents to which P&I compensation applies is limited (death benefits, residual disability benefits, etc.).

Also, the ratio of cargo damage incidents was much lower for coastal vessels than for ocean-going vessels. This is due to the Japanese domestic sea transport business practice of handling cargo damages using cargo insurance even when the vessel owner is at fault, so there were few claims directed at vessel owners. Therefore, since basic coastal vessel P&I insurance does not cover cargo damage when the vessel owner is at fault, we handled almost no accidents of this type. However, in recent years it has become more common for cargo owners and their cargo insurers to make claims against vessel owners when cargo damage occurs, so separate cargo damage insurance is being provided by us to extend coverage to cargo damage which occurs when the vessel owner is at fault. Please contact our Underwriting Department for more details.



[Graph 14. Ratios of Number of Accidents and Insurance Money for Large Coastal Vessel Accidents by Risk Category]

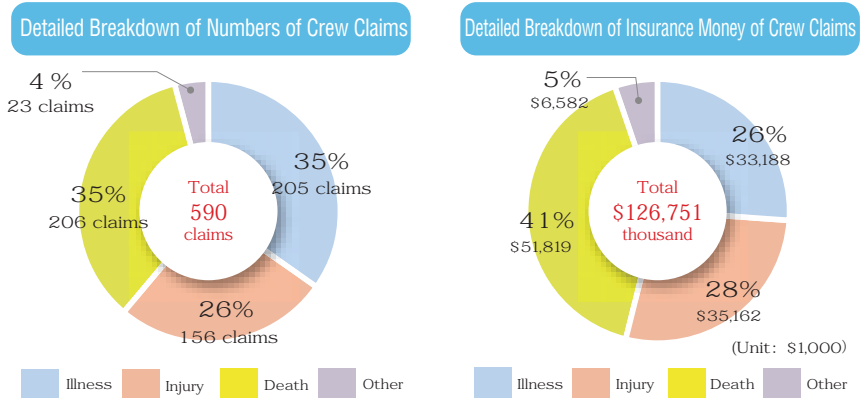
For both ocean-going and coastal vessels, when discussing large claims, groundings, sinkings, and collisions come to mind, but looking at these data, although those types of accidents do occur, in actuality more commonplace incidents, such as crew claims and damage to Harbor facilities, occur more often. These commonplace accidents have the potential to be very costly, so it is important to pay them close attention.

Next, we'll look at trends within each large claim category, using ocean-going vessel data.

## 2-1. Crew Claims

As discussed above, the greatest share of large claims we handle are crew claims. Many of our members struggle to handle these crew claims.

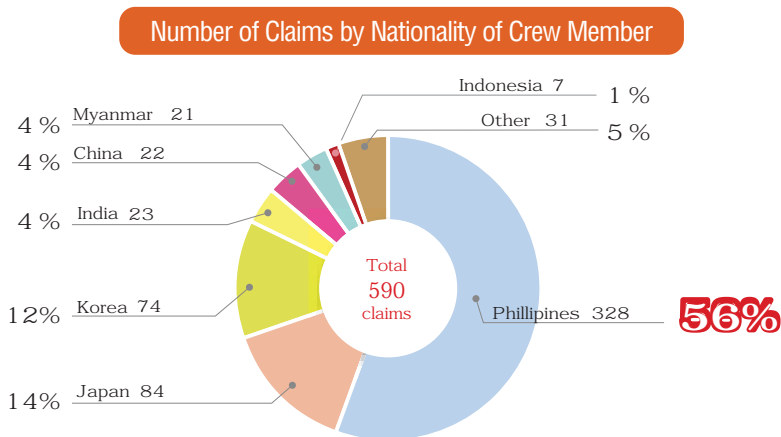
Graph 15 shows a breakdown of crew claims. This graph divides crew claims into the categories of illness, injury, death, and other, and shows the number of claims of each type and the amount of insurance money for each type. "Deaths" include illnesses and injuries which resulted in death. "Other" includes ship desertion, etc. In terms of numbers of claims, there were many claims for illnesses (205) and deaths (206). In comparison, the number of injury claims (156) was somewhat low. In terms of insurance money, on the other hand, deaths came in first, at \$51,819 thousand while illnesses and injuries came out about even, at roughly \$35,000 thousand each. Insurance money were roughly equal for illnesses and injuries, but claim amounts tended to be high for situations which unfortunately resulted in deaths.



[Graph 15. Detailed Breakdown of Numbers and Insurance Money of Crew claims]

Graph 16 shows the ratios of nationalities of crew members. Foreign crew members have become an essential part of Japanese ship operation in recent years. There are many Filipino crew members working around the world. There are many Filipinos on the crews of ships which use our insurance. Therefore, as Graph 16 shows, an overwhelming share of claims are for Filipino crew members, accounting for 56% of the total. This is followed by Japanese and Korean crew members. Other nationalities include Vietnamese, Russians, Bangladeshis, and Taiwanese. Because these are

statistics for each nationality, per-nationality accident rates cannot be compared without dividing the number by the total number of crew members of that nationality. However unfortunately, we have not been able to assess the number of crew members of each nationality, so this comparison is not possible.



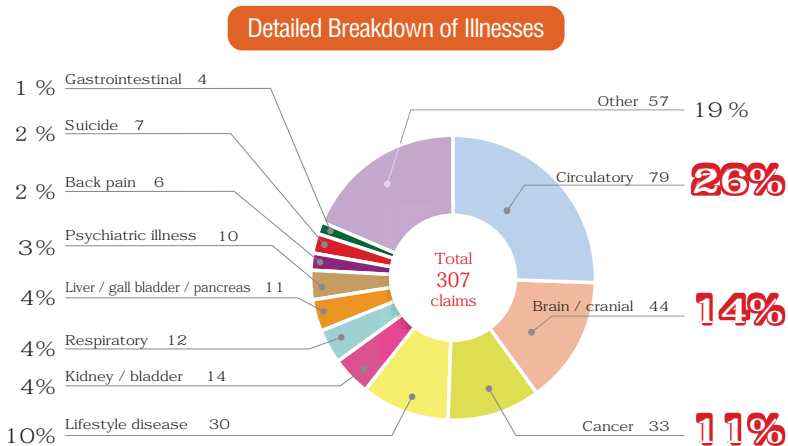
[Graph 16. Number of Claims by Nationality of Crew Member]

Graph 17 shows a breakdown of the ratios of the individual illnesses and injuries that make up large claims.

The largest proportion of illnesses is circulatory related cardiac arrests and visceral diseases. This was followed by brain and cranial illnesses such as strokes and cerebral infarctions, cancer, and lifestyle diseases such as high blood pressure and diabetes. This indicates that many illnesses are lifestyle related diseases.

Close attention must also be paid to increasingly high-profile psychiatric illnesses. While the number of cases is low, the majority of major psychiatric illness incidents are the result of crew members becoming prisoners of pirates. The terror of being attacked by pirates has been known to produce lingering problems such as post-traumatic stress disorder (PTSD). Another example of psychiatric illness-related incidents is suicides on-board vessels. The stress of life on a ship, and of difficulties in interpersonal relationships with those of other nationalities, can produce mental problems, so it is important to create environments on ships which foster communication between crew members.

There is no graph that shows insurance money for illnesses, but the breakdown is roughly identical to that of the number of these incidents.

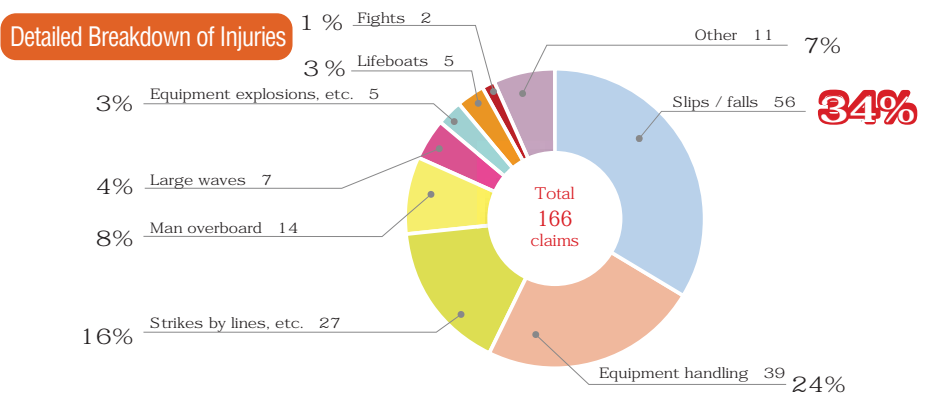


[Graph 17. Detailed Breakdown of Illnesses] (including illnesses which resulted in death)

Graph 18 shows a breakdown of injuries. Slips which result in fractures and injuries caused by falling in cargo holds were the main injury types, accounting for 34% of all injuries. There were also cases of injuries which occurred when handling onboard equipment and injuries caused by mooring lines breaking and striking crew members.

Although few in number, there were injuries caused by fights between crew members. As with the psychiatric illnesses and suicides above, this indicates a potential lack of communication between crew members.

There is no graph which breaks down insurance money for injuries, but, as with illnesses, the breakdown is roughly identical to that of the number of these incidents. When injuries result in residual disabilities, residual disability benefits must be paid out in accordance with the employment contracts of the injured crew members, so, necessarily, the insurance money tend to be large.



[Graph 18. Detailed Breakdown of Injuries] (including injuries which resulted in death)

In particular, there were a large number of cases where injuries to Filipino crew members developed into lawsuits in the Philippines, resulting in expensive benefits above those specified in employment contracts as well as additional trial defense costs for hiring lawyers, etc., which has had a notable impact on our Club's insurance money results.

Even for non-large claims, lifestyle diseases such as high blood pressure and diabetes account for some share of illnesses, and slips and cargo hold falls are common causes of injuries. Preventing these kinds of incidents will require improvements to the lifestyles of crew members, and improved safety awareness.

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## 2-2. Cargo Damages

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We receive many inquiries wondering why, when cargo insurance is arranged separately, P&I insurance is involved. Before looking at cargo damage trends, a brief answer to this question is in order.

Generally, cargo owners insure their cargo using cargo insurance (see note below), and if damage occurs to their cargo, compensation is provided by that cargo insurance. When responsibility for cargo damage lies with the carrier (the person who signed the B/L), such as when cargo is damaged by water leakage from a vessel hatch, the insurer issues a subrogate claim to the carrier (generally a cargo claim). P&I provides compensation to carrier who are our Club members for liabilities resulting from cargo damage. Because of this, when it is clear that cargo has been damaged, P&I is contacted, and we begin ascertaining the cause of the damage and the facts of the situation in preparation for future cargo claims from the insurer.

(Note)

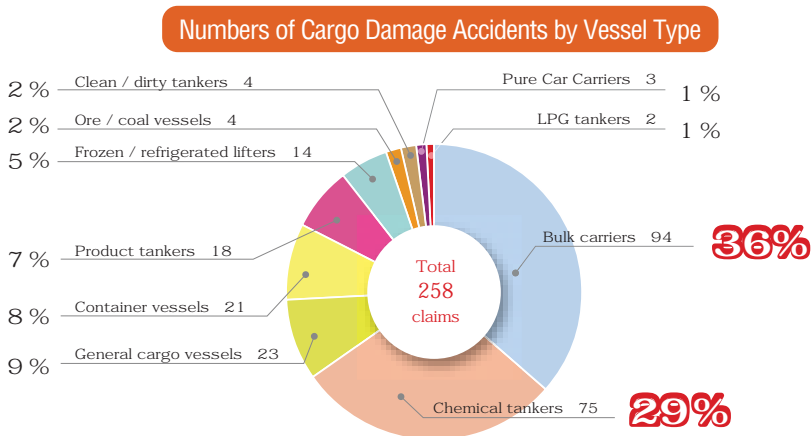
**Cargo insurance** : Insurance taken out by the cargo owner to cover loss of property in the event that an accident, etc., causes damage to cargo, which is their property. (Like Hull insurance or automobile insurance)

**P&I insurance** : Insurance taken out by the vessel owner to cover their own liability in the event that vessel owner causes damage to the property of a cargo owner and a claim for compensation is made by the cargo owner. (Liability insurance)

**\*\*\*Optional for coastal vessels!!**

Graph 19 shows cargo damage trends for each vessel type. There was a high incidence of large cargo damage accidents for bulk carriers, chemical tankers, general cargo vessels, and container vessels. For bulk carriers, there were many cases of cargo damage caused by fresh or seawater leakage, or by water damage paired with short delivery damage. For chemical tankers, there was a great deal of quality degradation (off-spec) damage caused by seawater seeping into cargo during pre-loading or during voyages. For general cargo vessels there were many cases of cargo collapsing due to poor stowage or rough seas, damaging the cargo. For container vessels, there were many incidents of containers falling into the water due to problems with vessel on-deck container securing materials (deck sockets, etc.) or rough seas. For chemical tankers, when quality degradation damages occurred, there were numerous cases where the unit price of the cargo was relatively high, or damages were high because the incident resulted in the total loss of the cargo tank. These will result in cargo claims which can be exceptionally high, so careful attention must be paid to these cases.



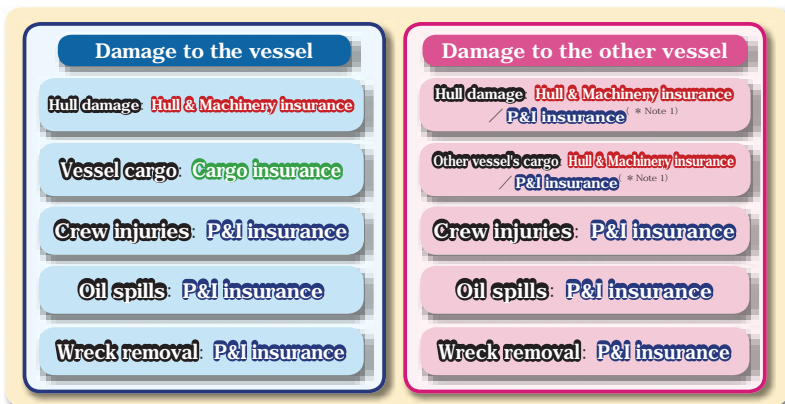


[Graph 19. Numbers and Ratios of Cargo Damage Accidents by Vessel Type]

## 2-3. Collisions

Over the seven year period there were 73 large ocean-going vessel collisions.

Collisions involve multiple parties and stakeholders, making claim processing complicated. As with cargo damage, we often receive inquiries asking who will cover which damage, so it would be best to first briefly explain which insurers cover which compensation. The insurance types which apply to each damage type are indicated below.



\* Note 1: When an entered vessel collides with another vessel, causing damage to the other vessel's hull, cargo, or other property, compensation is normally covered in accordance with the hull & machinery insurance running down clause (RDC), but P&I may provide some compensation for the damages listed above, depending on the terms and conditions of insurance contracts. For example, for hull & machinery insurance contracts underwritten by Lloyd's and used around the world (ITC Hulls), the hull & machinery insurer covers compensation for 3/4 of the damage to the other vessel, and P&I covers the remaining 1/4. For coastal vessel insurance, compensation is covered by the hull & machinery insurer.

Damages for collisions between ships are decided after determining to what degree the insured vessel and the other vessel were collision liability. For example, consider a collision where our entered vessel is 40% responsible, and the other vessel is 60% responsible for the collision. Based on this responsibility ratio, our vessel would be responsible for paying 40% of the damages incurred to the other vessel, and the other vessel would be responsible for paying 60% of the damages incurred to our vessel. Our vessel's insurer would provide compensation for 40% of damages to the other vessel, and would negotiate to claim the 60% in damages to our vessel.



Large collisions occur to our entered vessels of every type, in every region, and at any time. The number of collisions with Chinese fishing boats in waters off the coast of China has been increasing in recent years. This is a trend which requires ongoing attention. When our vessel or other vessel sinks, has an oil spill, or has crew members (especially fisher men) who are injured or died, insurance money tend to be high.

Collisions are one of the "big five ship perils", together with sinkings, groundings, strandings, and fires. They can result in tremendous amounts of damage. For example, consider a collision with a large tanker on a busy shipping route, causing the tanker to sink. Further, consider what would happen if this resulted in a major oil spill which washed ashore, unfortunately, on a nearby coast with a thriving fishing industry. The extent of the damages incurred would be immeasurable. The world is growing ever more environmentally conscious, and even a single incident like this would not only subject the vessel owner to criticism around the world, but could have a major impact on the amount of trust society placed in them. Close attention needs to be paid every day to prevent collisions such as this from occurring.

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## 2-4. Groundings

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Over the seven year period there were 22 large grounding accidents. As with collisions, they occurred to our insured vessels of every type, in every region, and at any time.

One of the key points involved in determining whether a grounding accident is large case or not was whether it involves the spilling of fuel oil into the sea. In areas where the grounding occurs on rocks, tetrapods, etc., there is a higher likelihood of damage to the bottom of the vessel, resulting in spills of fuel oil or the like. Fuel oil spills result in expensive cleanups, as well as potentially causing damages to the fishing industry, etc. In particular, groundings on coral reefs can become global environmental problems, so particular care is needed in this area. Damage to the bottoms of vessels can allow sea water to enter the vessel, damaging vessel equipment (especially equipment in engine rooms). In some cases, the damage may be severe enough that the entire vessel needs to be written off, requiring owners to make the painful decision to give up the vessel. When vessels are determined to be total losses, they are treated as wreck, the handling of which requires additional removal expenses. The removal of ship wreck can be both time-consuming and very costly, depending on the size of the vessel and where she grounds.

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## 2-5. Fires

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Over the seven year period there were 9 fires, another of the "big five ship perils". They occurred in various locations, with various causes, but most of the fires handled by us have been in Asia.

Fortunately, none of these cases have been the kind of tragic accidents which attract media coverage, and most have only resulted in cargo damage. However, there have been some cases where the fires resulted in the loss of crew member lives.

Fires run an extremely high risk of becoming large, tragic accidents. Even a small fire, if it results in an explosion, can not only damage cargo and the environment, but can threaten the lives of crew members and the continued existence of the vessel itself.

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## 2-6. Damage to Harbor Facilities and Fishing Facilities

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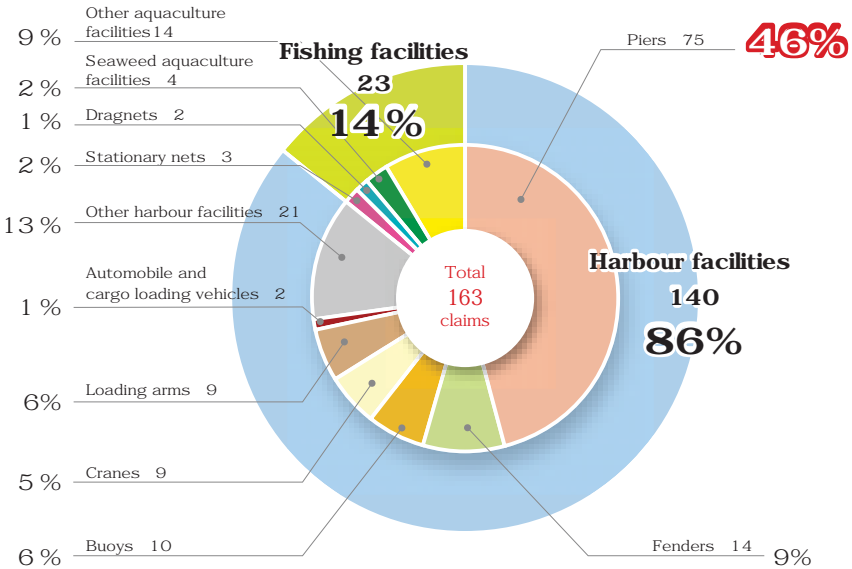
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The first thing many people think of when they think about P&I insurance compensation may be damage to harbor and fishing facilities. They are an obvious example of third party liability insurance, one of P&I's typical types of compensation. As discussed earlier, accidents resulting in damage to harbor facilities and fishing facilities are notable accidents to which close attention must be paid, both in terms of number of accidents and insurance money. The outer ring of Graph 20 shows a breakdown the numbers of accidents resulting in damage to harbor facilities and fishing facilities. Over the past seven years there were 140 cases of damage to harbor facilities (86%) and 23 cases of damage to fishing facilities (14%). The inner ring pie graph shows the breakdown of type of facility damaged.

The most common type of large harbor facility damage related accident was pier damage, accounting for roughly half of all harbor facility damage. "Piers" include jetties and dolphins. There were many cases of damage when berthing, and incidents such as punching holes in caisson piers or bending mooring dolphin piles resulted in major repairs with correspondingly high construction costs. The next most common type of damage, after pier damage, was fender damage, which often occurred at the same time as pier damage accidents. There are various types of fenders, from relatively inexpensive ones to expensive ones. It is important to note that some large fenders can cost over ¥10 million each. Other harbor damage included damage to submerged cables, conveyor belts, hoppers, and the like. Accidents to land-based cranes, loading arms, and the like, while accounting for few of the total number of accidents, resulted in high repair costs, as well as, in some cases, loss of time damages.

Damage to fishing facilities can be broadly divided into "accidents which caused damage to fishing nets such as stationary nets and dragnets" and "accidents which caused damage to seaweed (laver), tune, scallop, seaweed (wakame), or other aquaculture facilities". In large claims, damage to aquaculture facilities occurred more than damage to fishing nets, but when non-large claims were also included, accidents involving damage to fishing nets constituted the overwhelming majority.

## Breakdown of Damage to Harbor Facilities and Fishing Facilities



[Graph 20. Breakdown of Damage to Harbor Facilities and Fishing Facilities by Number of Cases]

When aquaculture facilities are damaged, restoring the facilities to their original conditions involves significant repair expenses, but it is also important to note that these accidents also result in indirect damages, such as compensation for loss of income. For example, when aquaculture facilities are damaged, their owners may make claims for compensation for the income that they would have received had the accident not occurred. The contents and amounts of these claims must be scrutinized, so please contact us first if any claims like this are received.

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## 2-7. Oil Spills

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There were 23 large oil spills over the seven year period.

As was touched on in the section on collisions, there is a growing awareness of and interest in the environmental impact of oil spills. While frequency varies by ship type and region, several large oil spills occur each year, many of which occur during bunkering. These include accidents such as sounding errors resulting in fuel tanks overflowing and fuel oil overflowing from air vents, or valves being operated incorrectly, allowing fuel oil to overflow into the sea.

Most large oil spills involve large amounts of spilled fuel oil, resulting in expensive cleanups. Fishing industry damage caused by oil spills is well known, but in addition spilled oil can enter harbors, adhering to fishing boats, yachts, pleasure boats, and the like.

Spilled oil can be broadly broken down into volatile "white oils", like gasoline, kerosene, and diesel oil, and "black oils", like crude oil and heavy oil. In the case of "white oil" spills, the oils evaporate rapidly, so precautionary work, preventing ignition sources from causing fires or explosions, is more important than cleaning work. In the case of "black oil" spills, on the other hand, the oils do not dissolve in water, tend to float, and are highly viscous, making them adhere easily to objects, so what is needed is a system for rapidly removing the oil in order to prevent the spill from spreading. However, there are limits to the amount of non-proliferation materials of spilled oil possessed by entered vessels, and they are insufficient to prevent the dispersion of oil which has spilled into the sea. This makes it necessary for cleaners to set up oil fences and soak up spills using oil sorbents soon after the spill, to prevent it from spreading. Performing this cleaning work requires not only many cleaning personnel, but also cleaning work tailored to the spill conditions, weather, sea conditions, and locations where the spill has washed ashore. The permission of the relevant authorities is required to use oil treatment reagents. Using them without permission may result in unexpected problems with the authorities and local fishing cooperatives. A key point in handling oil spills is to use experienced surveyors and cleaners in order to be able to establish cleaning systems and negotiate with authorities and other related parties, without delays. We dispatch surveyors and cleaners appropriate for each particular accident, so please contact us as soon as possible after an accident occurs.