



Attitude - Skill - Knowledge

A
TECHNICAL PAPER ON
HULL AND MACHINERY
INSURANCE
FOR
RISK AND MARINE INSURANCE
CONFERENCE 2015

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ABSTRACT:

As the world's economy is changing, also the financial challenges and exposure of today's vessel owners and managers is changing. Due to falling ship values, rising repair costs, new building cancellations and increasing incidents, hull insurers and the insured are facing difficult times. The technical paper aims at explaining the various contents of marine hull and machinery insurance claims arising under standard insurance conditions and the discovery of the latest trends in marine insurance markets. It also presents the marine insurance statistics which includes compiled insurance data and vessel characteristics for statistical purposes. Also it includes a study on distribution of global marine hull premiums for both ocean and coastal hull business for all hull-related business types. The increasing trend of claims is outlined along with the reasons behind it. Lastly, the report highlights the hull and machinery casualties in the year 2014.

Keywords: Subject matter, deductibles, claims, contract, abandonment.

INCLUDED AND EXCLUDED LOSSES:

Before discussing in detail the various types of claims usually covered by standard hull and machinery policies, the included and excluded losses under the English Statutory law must be mentioned.

As per the Section 55 of the Marine Insurance Act 1906,

1. Unless the policy otherwise provides, the insurer is liable for any loss proximately caused by a peril insured against, but he is not liable for any loss which is not proximately caused by a peril insured against.
2. In particular:
 - a) The insurer is not liable for any loss attributable to the wilful misconduct of the assured.
 - b) The insurer is not liable for any loss proximately caused by delay, although the delay be caused by a peril insured against.
 - c) The insurer is not liable for any ordinary wear and tear, ordinary leakage or breakage, or any injury to machinery not caused by maritime perils.

CLAIMS USUALLY COVERED:

1. ACTUAL TOTAL LOSS:

It happens when:

- a) The subject matter is completely destroyed.
- b) Assured is permanently deprived of the subject matter.
- c) Subject matter has lost its merchantable character.

2. CONSTRUCTIVE TOTAL LOSS:

If the cost of retrieving, repairing and forwarding a subject matter is more than the value of subject matter after such act, then there is no reason to carry it out. In such cases, the assured can abandon the subject matter and claim for constructive total loss. If the insurer accepts the notice of abandonment, the property becomes his. The insurer has got the right to reject the notice of abandonment but has to pay constructive total loss.

ITC HULL 1983:

It is a specified risk policy. The perils covered under this policy are divided into 2 groups:

| GROUP I | GROUP II |
|--|--|
| Perils of the sea, river, lake and navigable water | Accidents due to loading, discharging and shifting of cargo and fuel |
| Fire and Explosion | Bursting of boiler and breakage of shaft |
| Violent theft by a person outside the vessel | Negligence of pilot, officer, master and crew |
| Jettison | Negligence of Charterer and Repairer |
| Piracy | Barratry |
| Collision and Contact | |
| Earthquake, Volcanic eruption and lightning | |

Claims coming under Group I will be paid in any case and the ship owners are not required to show the proof of due diligence being done.

Group II claims will be paid only when the ship owner proves that he had exercised due diligence in handling the vessel. In case it is found out that the proximate cause of damage to the vessel is due to negligence and the ship is damaged due to any causes listed in Group II, then the insurer will not be paying the assured.

DEDUCTIONS FROM CLAIMS:

With regard to most forms of claim on the policy, modern insurances generally provide that, in respect of each occurrence giving rise to a claim or claims on insurers, a fixed deductible is to be deducted from the total of such claims.

Apply one deductible:

1. Where there is only one accident or occurrence
2. Where, even although there may be several accidents or occurrences, they are not separate form a connected set of events or incidents from which the claim arises.

Apply more than one deductible:

1. Where a new cause give rise to one or more of the incidents and which is not directly connected with previous events.

RUNNING DOWN CLAUSE or 3/4TH COLLISION LIABILITY CLAUSE:

If two ships collide, then both are liable to pay compensation to each other in proportion to their blames. They either can go to an Admiralty court or an Arbitrator who decides the blame of both vessels individually. They pay their losses in proportion to their blames.

Insurer agrees to pay assured a sum of 3/4th of his liability towards other vessel in case of collision subject to maximum of 3/4th of insured value.

Duty of assured is to act like a *prudent uninsured*. The assured has to behave in a manner or if he has not taken any insurance. They have to take proper care of the subject matter.

SUE AND LOBOUR:

The reasonable expenses of the assured incurred to save the subject matter after striking of the peril will be reimbursed by the insurer subjected to insured value. It will be paid in addition to other losses and even when such act is unsuccessful. If the sue and labour operation was unsuccessful then the insurer might have to pay *more than the insured value*.

NEW FOR OLD:

Marine insurance is a contract of Indemnity but this concept can be overridden by other contracts if we have such a clause in the policy. In case an owner buys a new part then the insurer pays for a new part and will not deduct the depreciation in the product.

MARINE CLAIM TRENDS:

The marine insurance has shown an increasing trend towards frequency of large claims and a general trend towards the rising cost of claims.

An increase in groundings and incidences of machinery damage involving crew negligence has also been of growing concern for insurers. Over the past five years, there has been a steady increase in claims in this area. Crew negligence is the main reason for the top causes of the losses and has a potential contributing factor of more than 60%. Crew negligence is outcome of the ship operator's efforts of effectively managing their costs. It has been found out that recruiting of crew from around the world has led to reduction in the quality and standards. Crew negligence is a complex issue that is not being resolved by the ship-owners. There is a shortage of well trained crew and seafaring is not seen as an attractive career by many graduates in many countries.

CHALLENGES TO MARINE INSURERS:

Area of concern for marine insurers is the cost of dealing with groundings, which brings in with it potentially high costs of removal. Wreck removal has become complex and expensive due to environmental concerns and improved salvage technology. The case of *Costa Concordia* can be considered. It struck a reef and capsized off the Italian island of Giglio in January 2012, but was recently raised from underwater platform on which it has been resting for past one year. According to the reports, the cost of re-floating and removing the wreckage of *Costa Concordia* is likely to hit \$1.5 bn, including the hull value and passenger compensation, approaching \$2 bn.

Small and medium sized weather related claims have been increasing in frequency. *Superstorm Sandy* had hit the insurance market hard in 2012. Natural hazards will remain to be a feature in marine claims due to climate changes combined with concentration of risk and assets in catastrophe exposed zones.

Due to the challenging operating environment, the ship operators are aiming for more efficient and economic alternatives. Due to this, the industry is moving towards a larger number of innovations, larger ships and alternate fuels. Claims arising from larger ships can be huge. Structural integrity of untested designs is also a concern. The wreck removal costs of large vessels can be multiple times of its hull costs.

The requirement of low sulphur fuels is also increasing. As the engines needs low sulphur fuels, they have to be refined more number of times and this leads to introduction of cat fines in the fuel. These cat fines when find way into the engines, becomes very difficult to dislodge and leads to engine failures.

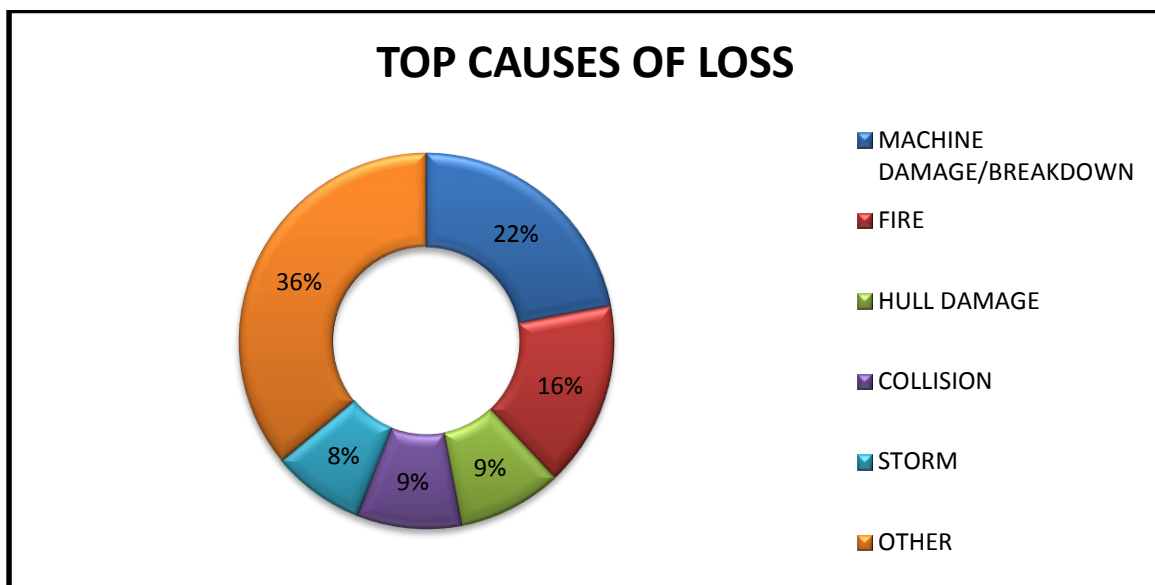


Figure 1

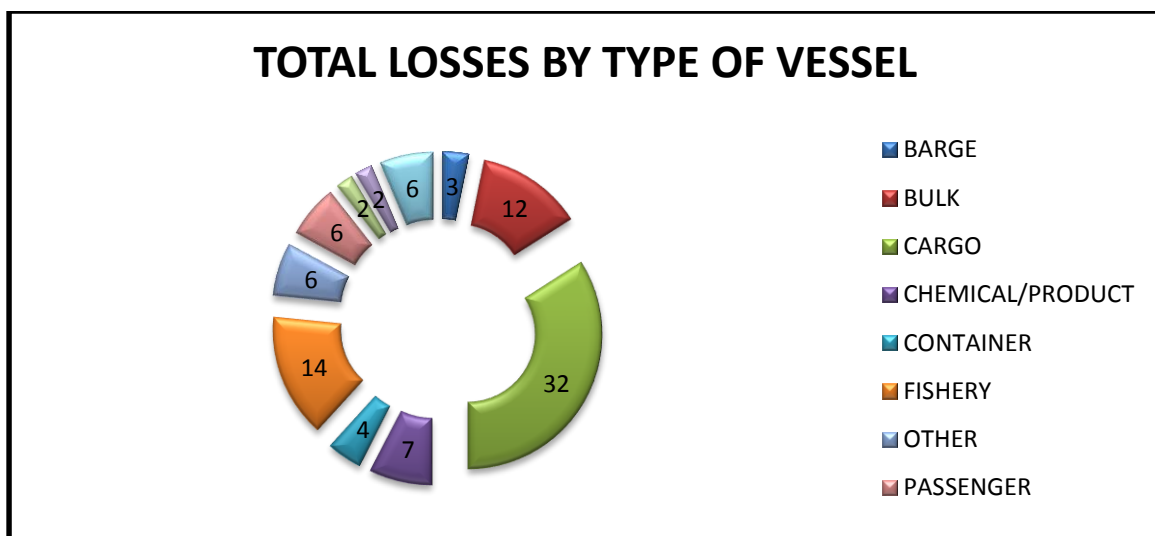


Figure 2

CLAIM STATISTICS:

SMALL CRAFT AND FISHING VESSELS:

The Figure 3 and 4 highlights the different reasons for claims for small craft and fishing vessels. They clearly depict the approximate percentages of claims due to different reasons.

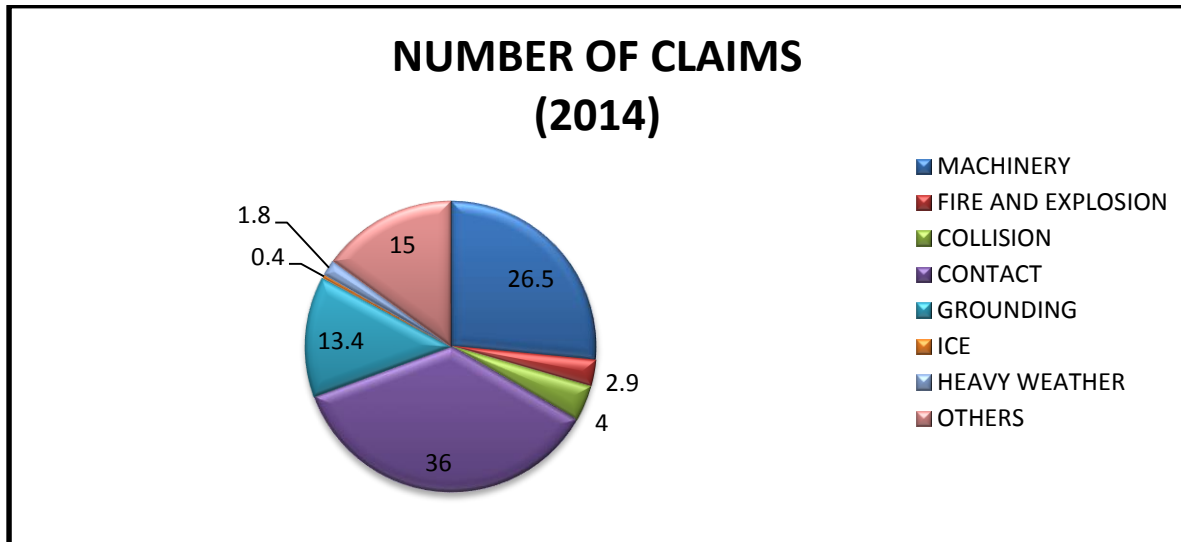


Figure 3

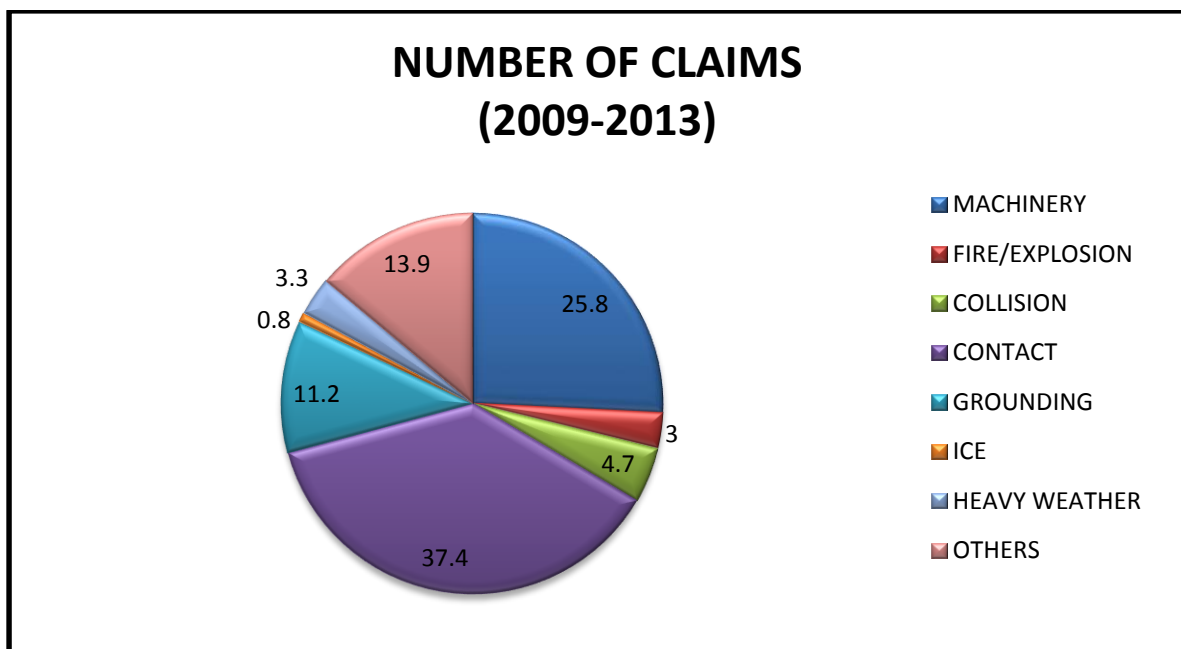


Figure 4

OCEAN VESSELS:

The figure 5 and figure 6 highlights the different reasons for claims for ocean vessels. They clearly depict the approximate percentages of claims due to different reasons. Also it clearly shows the variation between years 2009-2013 and 2014.

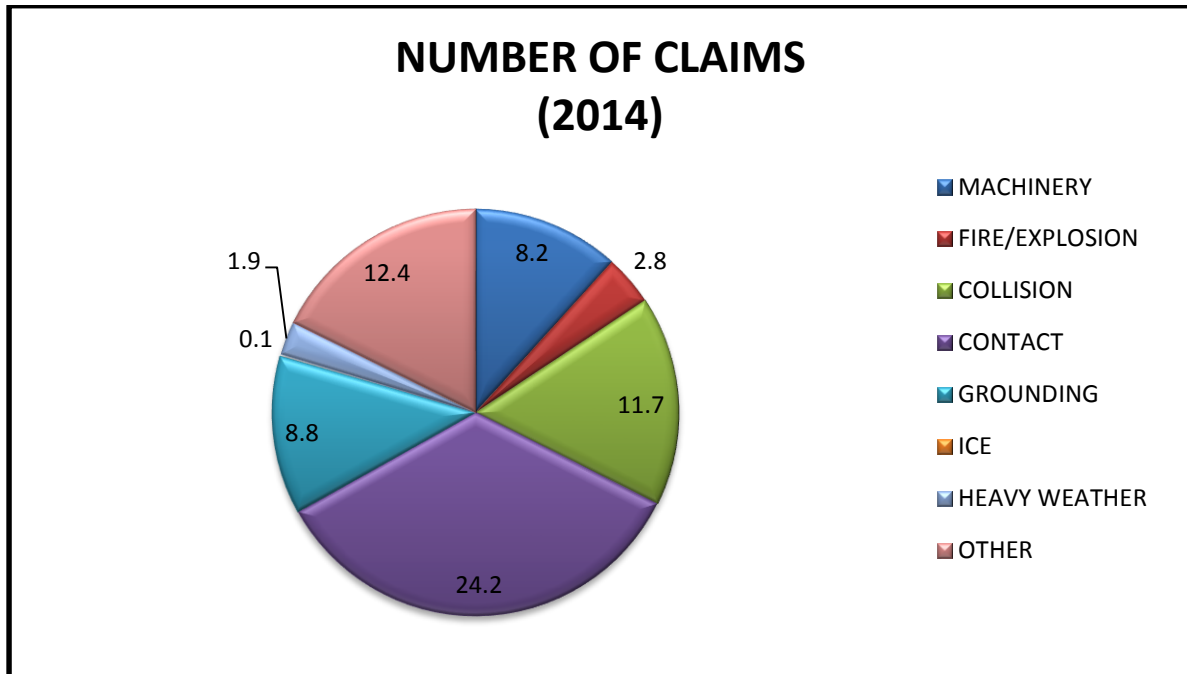


Figure 5

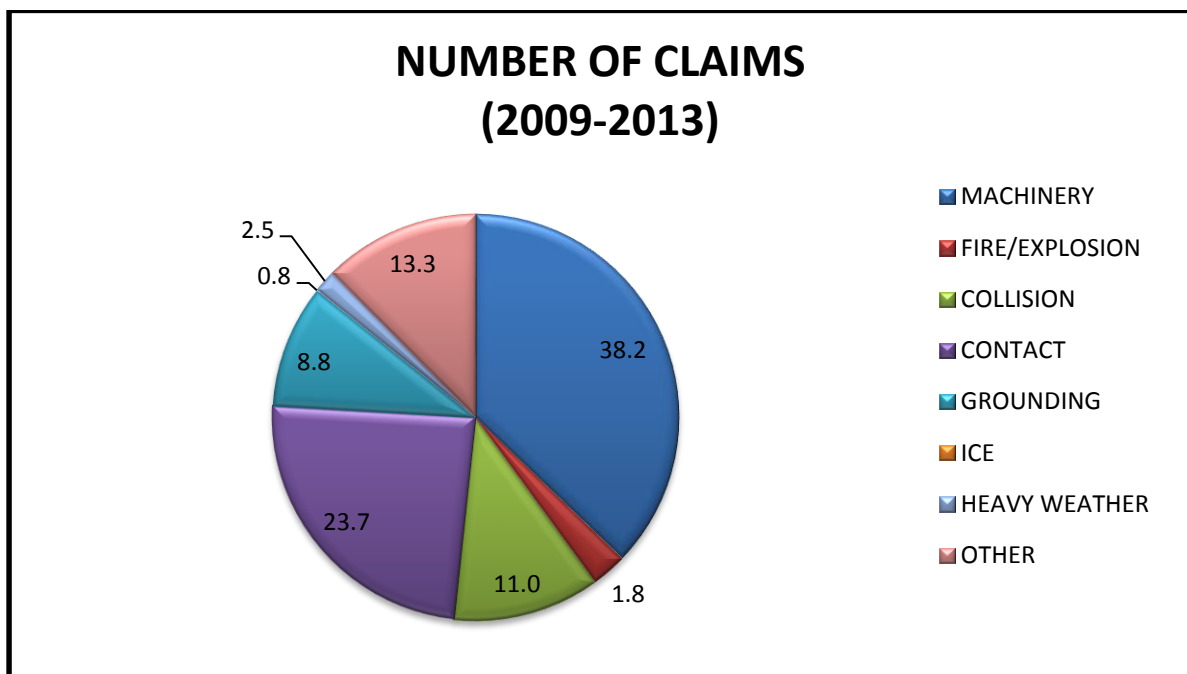


Figure 6

OCEAN HULL TRENDS:

In 2008, the frequency of claims of all sizes rose to a record level. In 2009-2011, it fell back to a level at the start of the millennium and has shown a further slight drop in later years. In 2014, the frequency showed a slight increase compared to 2013, but the level was still a long term low. A number of factors that are likely to have favourably affected the claims frequency are:

- Increased deductibles
- Reduced repair costs
- Reduced vessel utilization
- Slightly younger and larger vessels

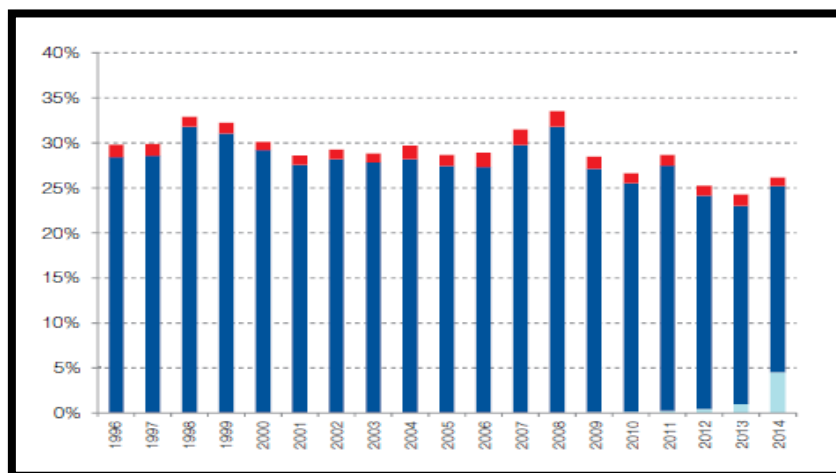


Figure 7: CLAIMS FREQUENCY BY DATE OF LOSS

Despite the low claims frequency in last few years, the claim cost per vessel has shown a different trend. In 2012, the industry was hit by a comparatively large number of **total losses** exceeding USD 30 million, including ‘**Costa Concordia**’. This made 2012 as the second most expensive year in terms of claim costs per vessel – second to the shipping boom year of 2007.

In 2014, the most notable feature was the substantially reduced cost of claims in excess of USD 5 million. This was also reflected in total loss frequency, which was almost a record low. However the cost of claims below USD 5 million was higher than that in past 5 years.

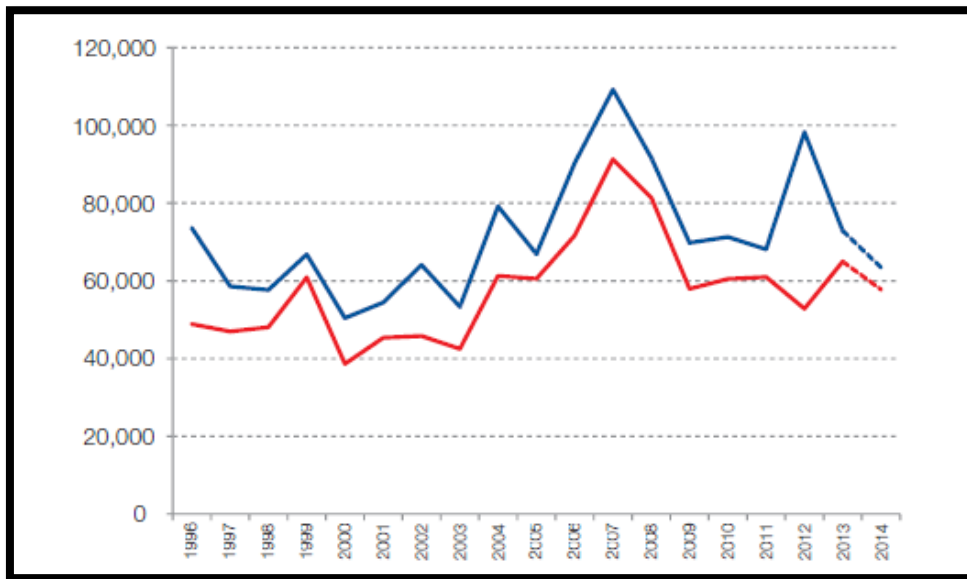


Figure 8: ULTIMATE PARTIAL AND TOTAL CLAIM COST PER VESSEL

HULL AND MACHINERY CASUALTIES:

- **COSTA CONCORDIA:**

The Italian cruise ship Costa Concordia capsized and sank after striking an underwater rock obstruction off Isola del Giglio, Tuscany, on 13 January 2012, with the loss of 32 lives. The ship, carrying 4,252 people, was on the first leg of a cruise around the Mediterranean Sea, coming closer to that island, and struck a rock formation on the sea floor.

There were immediate fears of an ecological disaster, because the partially submerged wreck was in danger of slipping into much deeper water, with a risk of oil pollution that could have devastated the popular tourist zone. In the end, no significant fuel leak occurred, and all the fuel was extracted safely from the ship by 24 March 2012. Costa Concordia has been officially declared a "constructive total loss" by the insurance company, with her salvage expected to be "one of the biggest maritime salvage operations". On 16 September 2013, the parbuckle salvage of the ship began and by the early hours of 17 September 2013 the wreck was set upright on its underwater cradle.

The total insurance industry loss from the wreck and salvage of the stricken cruise ship Costa Concordia looks set to get very close to the \$2 billion. Cost of salvaging and disposing of the Costa Concordia wreck has risen by another \$257m, taking the total protection-and-indemnity (P&I) insured loss to approximately \$1.44 billion. Some escalation of the salvage cost had been expected, but reinsurers had factored it in at around \$100m so this new jump in the Costa insured loss is at the high-end of expectations.

Added to a \$500m+ hull insurance claim the Costa Concordia wreck and removal is definitely set to cost the re/insurance market very close to \$2 billion. It is by no means guaranteed that there won't be some further loss creep (although not too much more can be expected), which could take the final bill over the \$2 billion mark, at which point there is a possibility that some additional instruments which are based on a loss trigger could come into play.

SOME OTHER HULL AND MACHINERY CASUALTIES IN 2014 ARE LISTED BELOW:

- **Suat Bey Grounding (15th May 2014)**
- **Saloos Capsize (16th May 2014)**
- **Elinakos Grounding (26th May 2014)**
- **Le Sheng / Cape Med Collision (30th May 2014)**
- **Shoko Maru Explosion (29th May 2014)**
- **Antonio Fire (6th June 2014)**
- **Viet Log Grounding (9th June 2014)**
- **Explorer Fire (14th June 2014)**
- **Elpida GR / Sea Rose Collision (16th June 2014)**
- **Universal Brave (17th June 2014)**
- **AMT Explorer Capsize (3rd July 2014)**
- **Bremen Engine Breakdown (11th July 2014)**
- **Lady Rosebud Engine Breakdown (14th July 2014)**
- **Hafnia Crux Engine Failure (7th August 2014)**
- **Flag Gangos / Pamisos Collision (12th August 2014)**

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