Cargo Claims in Dry Bulk Shipping

Claims Management and Prevention Strategies for Shipowners

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Type of claims overview

Wet Damage by Sweat

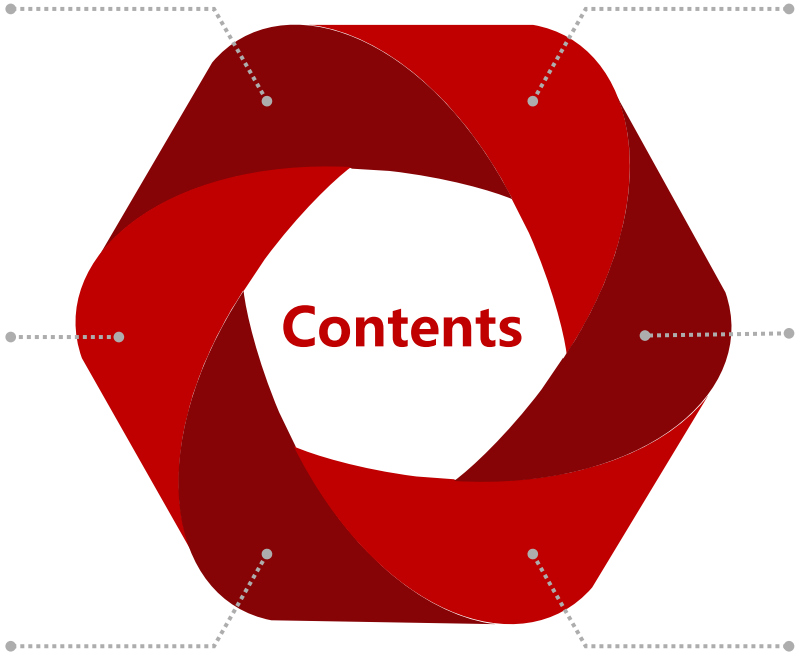
- Types of Sweat and Reasons for Wet Damage
- Cargoes at Risk
- Proper Ventilation
- Proper Record-Keeping

Wet Damage by Water Ingress

- Leaking Hatch Covers
- Bilge Back-Flow
- Leaking Ballast Water
- Other Leakage Problems

Cargo Damage by Heat

- Damage by Heat from Fuel Tanks or Engine Room
- Cargo Self-heating Due to Biochemical instability or Excessive Content of Moisture
- Heat Damage in Soya Bean Cargoes



Physical Damage

- Reasons for Physical Damage
- Reasons for Improper Lashing and Stowing
- Examples of Bad Stowage and Poor Securing
- Preventive Measures

Cargo Possessing Chemical Hazards

- Reason for Safety Incidents
- Chemical Hazards of Solid Cargoes
- Preventive Measures

Cargo Liquefaction

- What is Liquefaction
- Preventive Measures
- Carriage of Nickel Ore

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History

Since 1984

The building where CPI's office was located at the very beginning of establishment

Starting with 3 members,
50 entered ships,
470 thousand GT.

Products


Protection & Indemnity (P&I)


Hull & Machinery (H&M)

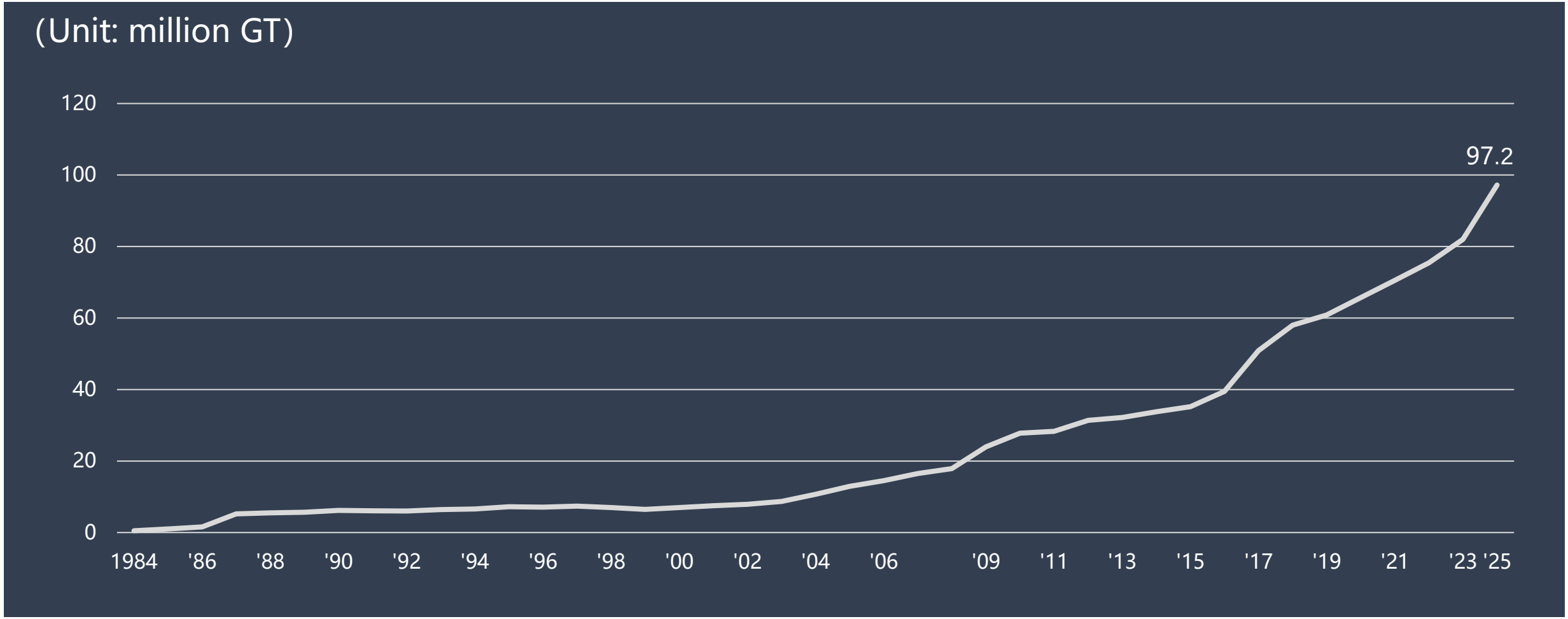

Charterers Comprehensive Cover


Freight, Demurrage & Defense (FD&D)

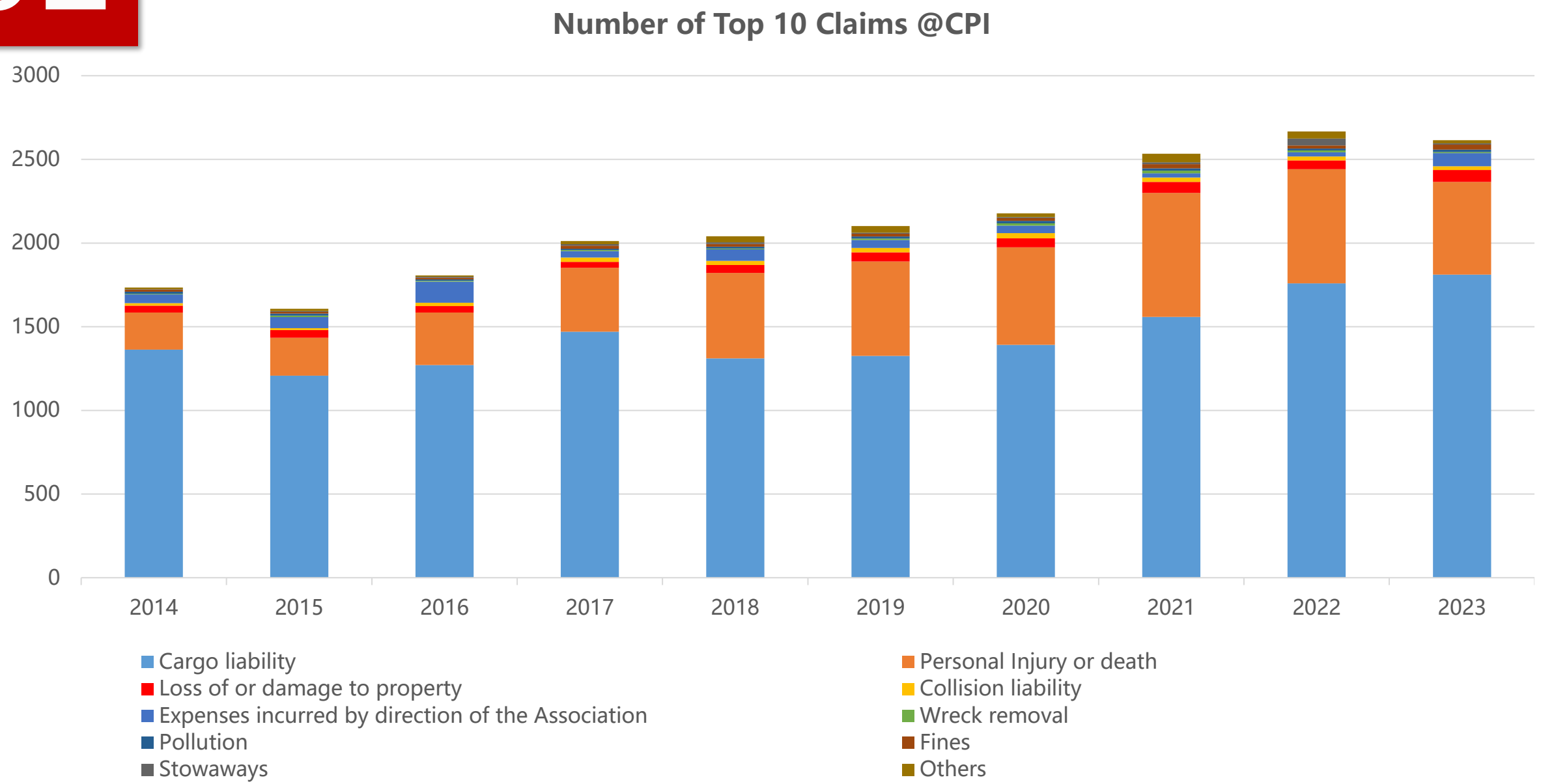

War Risks


Delay Insurance

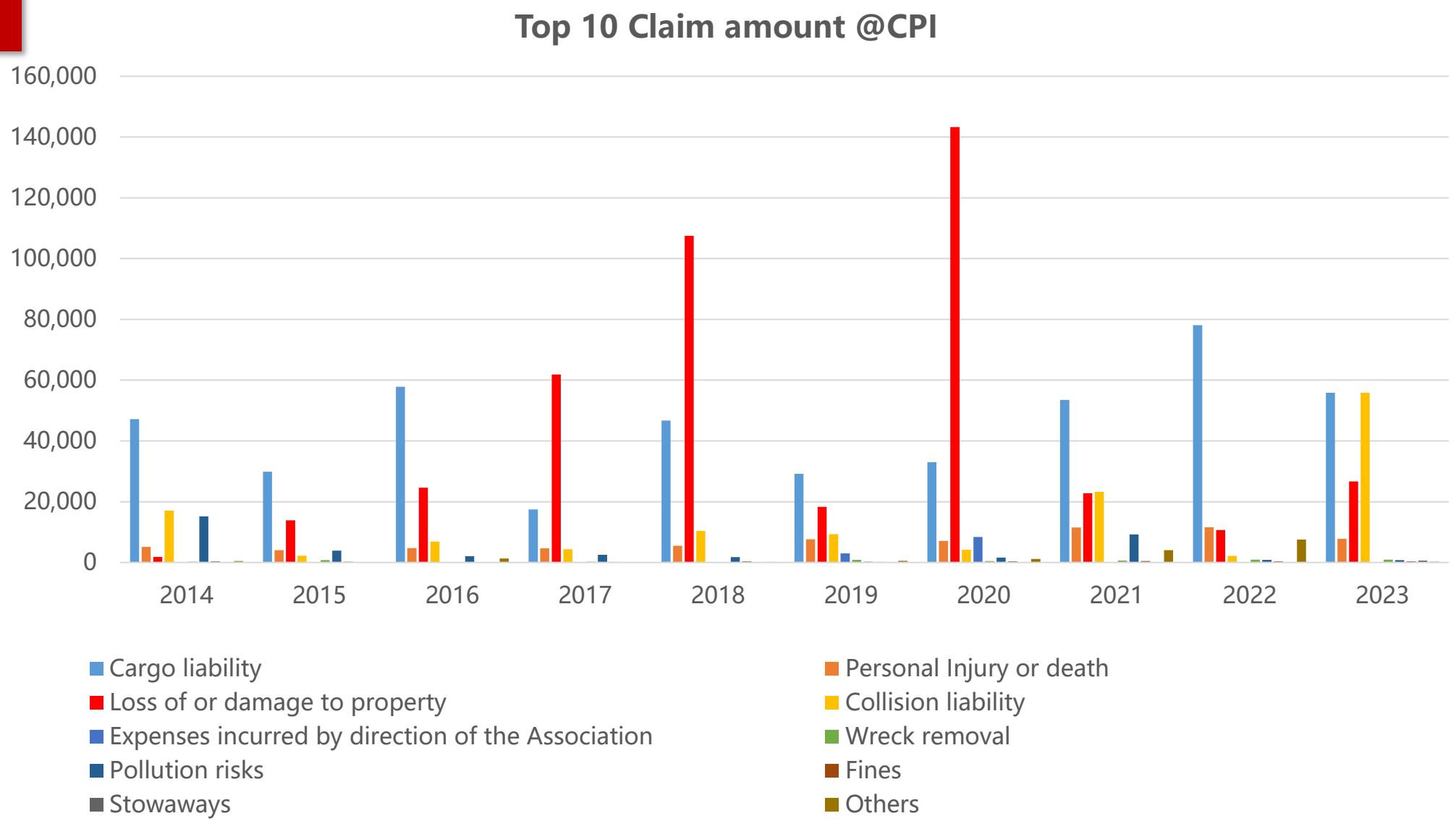
P&I Entered Tonnage



01 Claims overview



01 Claims overview



02 Case Study

Voyage

- Carriage of a cargo 3600 MT of Diammonium Phosphate – DAP in hold No. 3, from Nanjing, China to Buenaventura, Colombia on board our Member's vessel "A" dated 19th August 2020.
- Receivers stopped discharging operations due to alleged wet compacted cargo found on board until condition of the cargo verified. Therefore, clubs were informed at that time and surveyor were appointed to assist.

Receiver's claim

- *They alleged that water obviously entered the hold via the hatch covers through these photographs.*
- The total claim amount is USD320,000.

02 Case Study

02 Case Study

Surveyor's finding:

- All across the cargo hold it was clearly noticed a top layer of about 30 cms thick of DAP with darker color, it must be noticed that in various parts of the hold the said layer reached even 50-60 cms
- It was clearly noticed that there were not any leaking signals through the hatch coaming
- Conclude that the wetness found in the cargo was the result of condensation within the hold No. 3 as there were no external signals found that may have affected the cargo

02 Case Study

Our expert input:

I note that the surface layers are caked to a depth of up to perhaps a metre. There is, however, no indication that the wetness could have been caused by water leaking through a hatch cover as has been alleged. If such a leak had occurred, then I would expect to see much more localised damage in the area of the leak and less damage in the parts of the stow away from the leak. No such pattern is visible.

I can only conclude that the damage was not caused by any fault of the hatch cover. I can only envisage two possibilities:
1.The damage was caused by diffusion of water vapour from the bulk of the hold to cooler surface layers. In the absence of temperature data this cannot be proven.
2.It is conceivable that the surface layers were at a high moisture content when loaded. This should have been seen during loading but remains a potential feature.
***In either of these possibilities I cannot envisage any fault that relates to the vessel**.*

02 Case Study

Some thoughts:

1. Identify the type of wet claim
2. Defence strategy, better to protect owner's interest
3. The Hague - Visby Rules

Water ingress → **Latent defects** → **burden of proof lies with the carrier** → **Hard to prove.**

PART

03

Wet Damage

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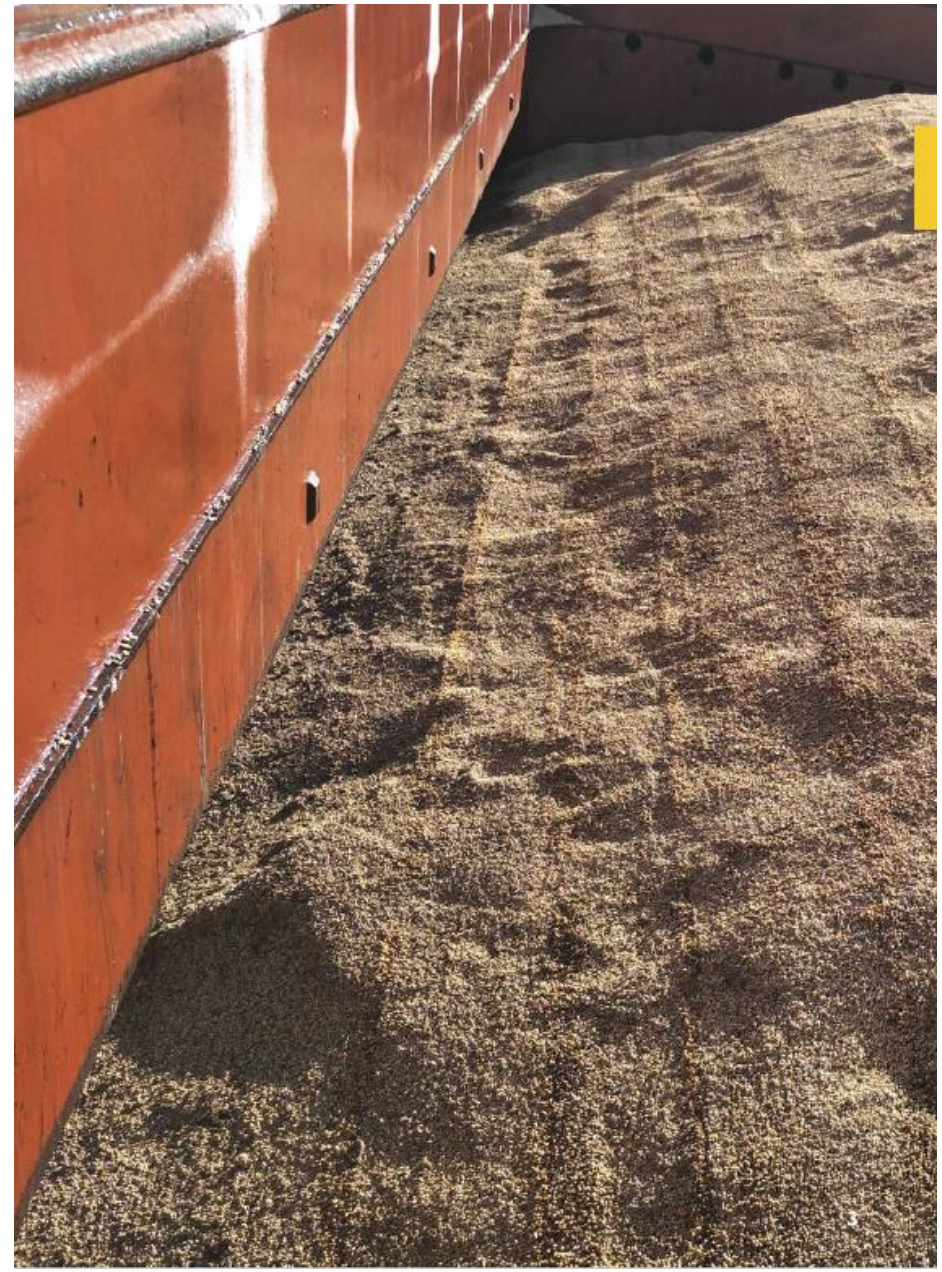
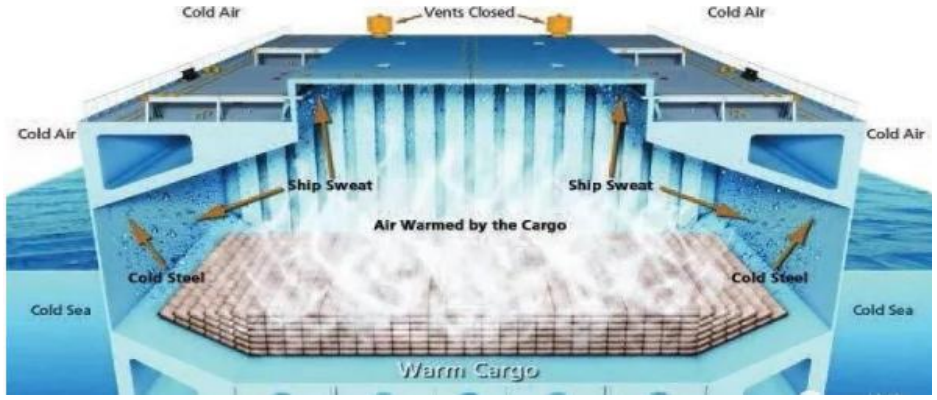
Wet Damage by Sweat



03 Types of Sweat and Reasons for Wet Damage

Ship Sweat

It often occurs when a vessel loads in a warm climate and proceeds to a colder climate

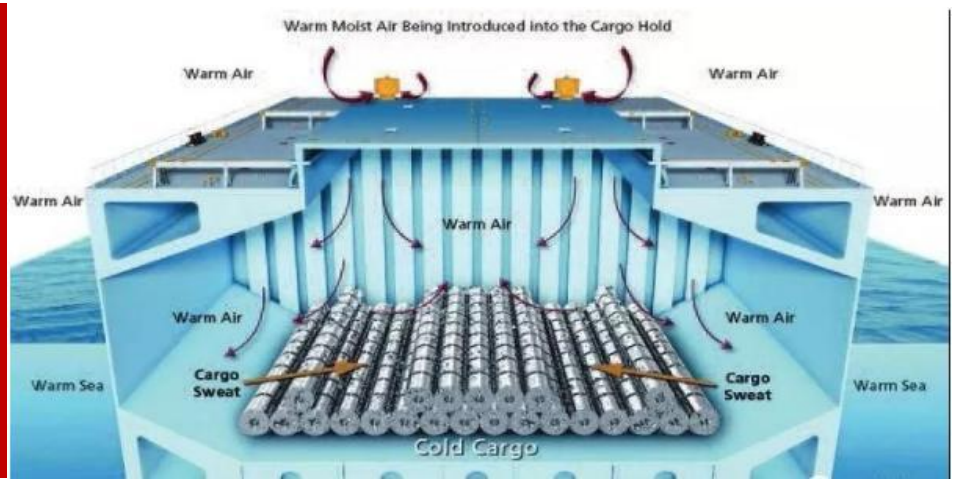


As the seawater and external temperature cool, the steelwork may be eventually cooled beneath the dewpoint of the warm moist air in the hold, causing sweat on the hold surfaces. Additionally, ship sweat can be formed because of local heating or cooling events within the vessel.

03 Types of Sweat and Reasons for Wet Damage

Cargo Sweat

Cargo sweat occurs when warm moist air is introduced into a hold and is cooled below its dewpoint by the cargo such that condensation forms.



This could occur, for example, when a vessel is on passage from a cold climate to a warmer climate and the holds are ventilated with warm moist air being introduced into the holds. The warm moist air is cooled below its dewpoint by the colder cargo, causing condensation to form on the surface of the cargo.

03 Cargo at Risks

Non-Hygroscopic Products(非吸湿性货物):

Non-hygroscopic cargoes are those that do not have an inherent moisture content, or at least not one which can interact with the air. One common example is steel products, that may react with the moisture to form rust.

03 Cargo at Risks

Hygroscopic Products(吸湿性货物):

Hygroscopic products have a natural moisture content and are mainly of plant origin. They may retain, absorb or release water vapour, and excessive amounts of inherent moisture may lead to significant self-heating and moisture migration within the cargo resulting in caking, mildew or rot.

03 Proper Ventilation

Ventilation Rules

Dewpoint Rule

VENTILATE if the dewpoint of the air inside the hold is higher than the dewpoint of the air outside the hold.

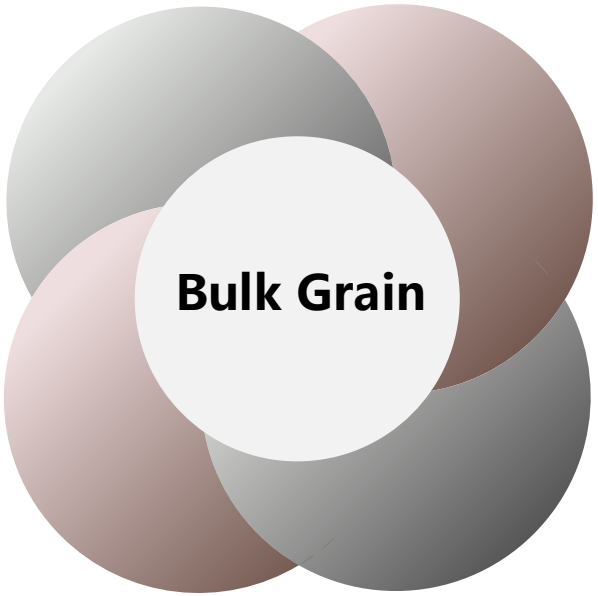
Three Degree Rule

VENTILATE if the dry bulb temperature of the outside air is at least 3°C cooler than the average cargo temperature at the time of loading.

The instructions from the shippers or the fumigators, if there are any, should be followed first.

03 Grain Cargoes

1. Crew access to cargo holds will be limited for various reasons, such as fumigation, and therefore the Three Degree Rule may apply more for the carriage of grain cargoes.



2. In cases where the cargo has been fumigated, on no account should crew members and shore people enter the holds until these have been certified gas-free.

Bagged Agricultural Cargoes

Styrofoam, Plastic/Polythene Sheet for Bagged Rice

The proper placement and combination of dunnage materials have been proven to be effective in reducing condensation damage on bagged rice caused by direct contact with ship's steel structure.

Bamboo Sticks/Mats as Dunnage

It is commonly found that bamboo is not free from moisture and can retain and bleed moisture during passage which may increase the risk of sweat. Meanwhile, bamboo mats tend to absorb the moisture and pass it on to adjacent bags that rest upon them when there is sweat on ship's hull.

Kraft Paper Covered on Bagged Cargoes

Meanwhile on completion of loading, the top layer of the bags will be usually covered with kraft paper so as to prevent any condensation from the hatch cover undersides from dripping over the cargo during the course of the voyage while inspection on the wet condition of kraft paper should be kept to avoid cargo damage.

03 Steel products

1. Moisture proof of dunnage is usually neglected by stevedores and crew.
2. Under LOI of loading or discharging in rain, special attention should be paid to the moisture-sensitive cargoes which are already loaded or to be loaded in the same hold in order to avoid direct wet damage or potential sweat damage.
3. It's then a good idea to cover the cargoes under the cross deck to avoid sweat damage and save frequent ventilation.
4. Prompt report and proper record shall be in place if any sweat damage occurred.

Covering the Cargoes to Avoid Dribbling Sweat

03 Proper Record-Keeping

Hold No. ——— CARGO TEMPERSTURE & VENTILATION LOG

Name of Vessel				Cargo			Soya Bean							
Name of Master				Total Quantity (MT)			4000							
Name of Chief Officer				Cargo Loaded at Average Temperature (°C)			25							
Date	Time (Lt)	Ambient Temp (°C)			Hold Temp (°C)			FOT Temp °C	Sea Temp °C	Bilge		Cargo Ventilation Times		Ventilation Rules * **Rule 1:** Ventilate when Ambient "Dew Point"<Hold "Dew Point". * **Rule 2:** Ventilate when Dry Ambient Temp is at least 3°C cooler than the average cargo temperature at the time of loadinng. * **Rule 3:** Shippers & Fumigators' Instructions are of priority to be followed. Remarks & Comments
		Dry	Wet	Dew Point	Dry	Wet	Dew Point			Port	Starboard	Start	Stop	
15/ APR	0400	30						35	28					Ventilation stopped during fumigation as per charterers/ fumigator's instruction.
	0800	27						35	26	0	0	0800		Fumigation finished and start ventilation as per charterers/ fumigator's instruction to remove fumigant after ending fumigation. Cargo in normal condition.
	1200	23						35	22				1200	Stop ventilation as per Rule 2.
	1600	21						35	22	0	0	1600		Start ventilation as per Rule 2.
	2000	21						35	20				2000	Stop ventilation due to rain or seas may ingress into cargo hold via ventilation system.
	2400	20						35	20					Stop ventilation during nighttime as high probability of rain or shipping seas in this area as per weather forecast.
16/ APR	0400	20						35	20			0600		Start ventilation as per Rule 2.
	0800	20						35	20	0	0			Stop ventilation due to not safe for crew going to deck during rough weather.
	1200													
	1600													
	2000													
	2400													

An Example of the Ventilation Log

In the event of sweat damage to cargo, evidence showing that the vessel ventilated correctly may be instrumental in defending any ensuing claims. Such evidence can be found usually in the Deck Log Book and the Cargo Temperature and Ventilation Log.

Thanks

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