

The Britannia Steam Ship Insurance Association Limited

Cargoworthiness

Shajed Khan, Britannia

Tina Havdahl, Britannia

Walter Vervloesem (FNI), IMCS

Hosted by Neale Rodrigues, Britannia



- Seaworthiness and Cargoworthiness
- The Loss Prevention perspective
- Practical considerations
- Legal issues

The Presenters



Neale Rodrigues
Divisional Director
Loss Prevention



Shajed Khan
Loss Prevention Manager



Tina Havdahl
Fleet Manager, Claims



Walter Vervloesem (FNI)
Chairman IMCS Group
Walter became the Chairman of the IMCS Group in 2000. He is a Vice-President of the NI and the sole author of several books, including the NI reference work on Ship Surveys and Hatch Cover Inspections.

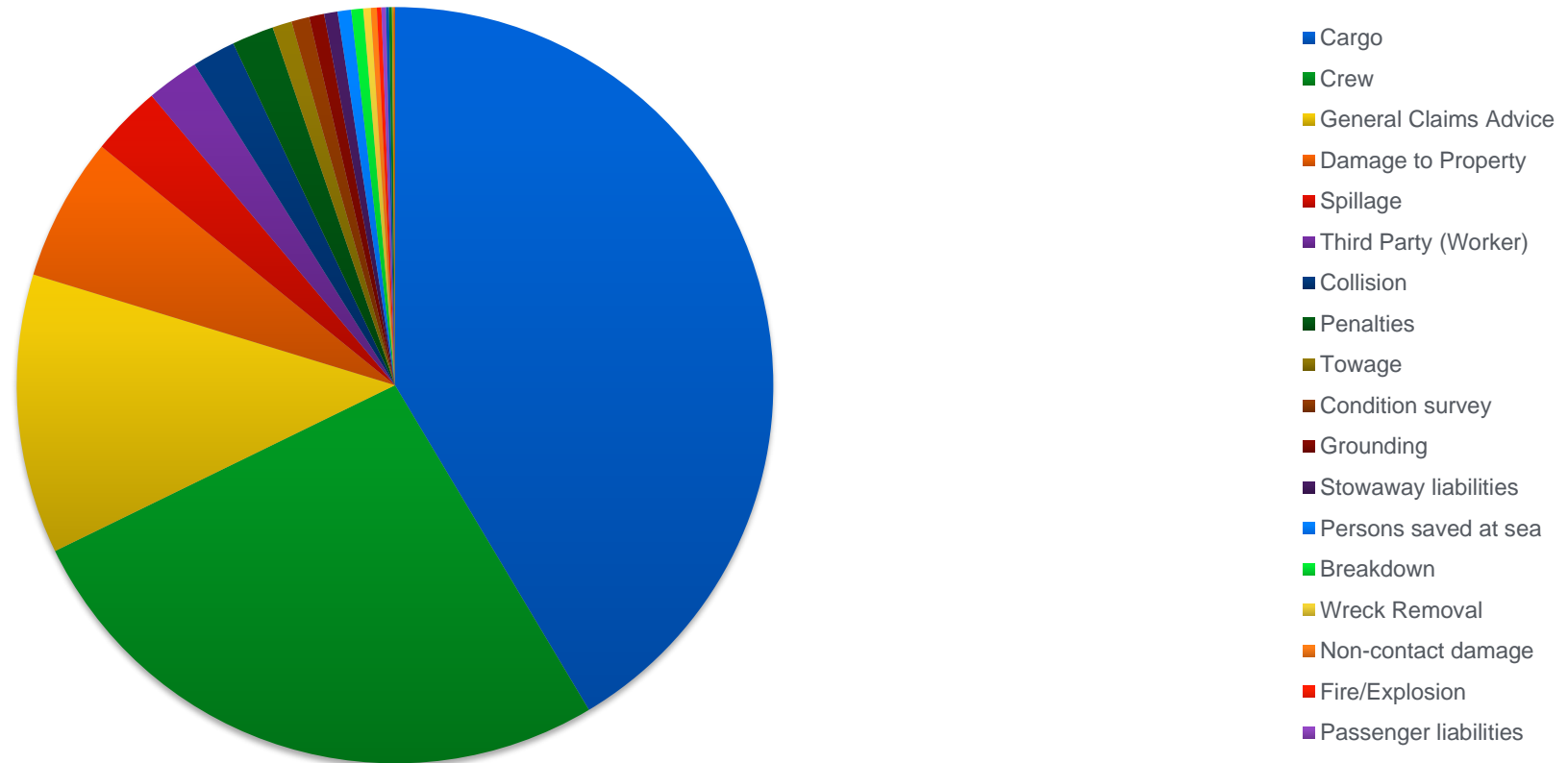
Cargoworthiness



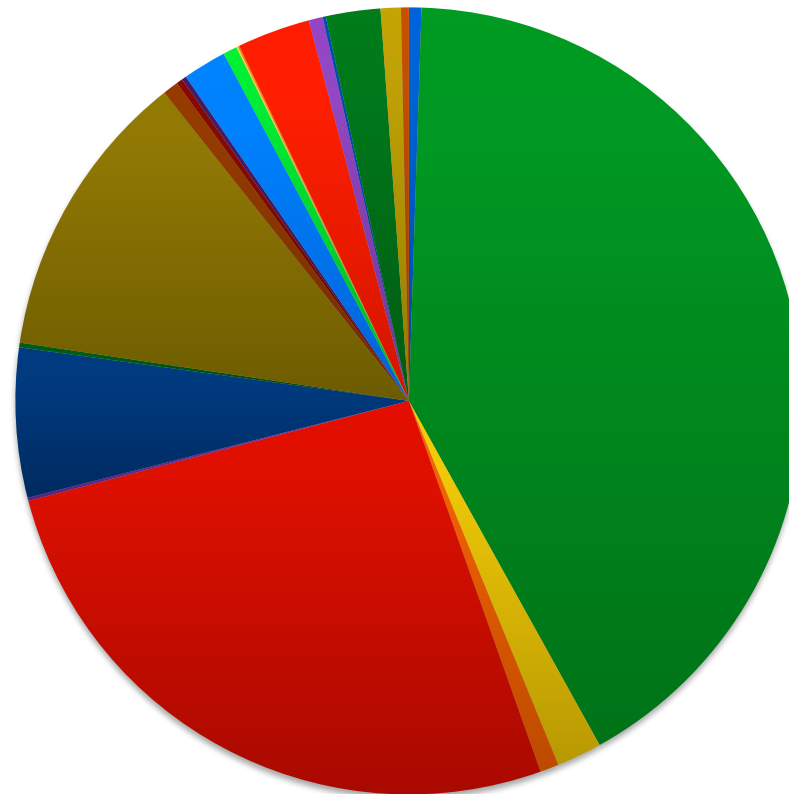
Capt. Shajed Khan

Claim statistics number

Total Number of Claims 2020 Policy Year



Total Value of Claims 2020 Policy Year



Breakdown

- Cargo
- Collision
- Condition survey
- Crew
- Damage to Hull
- Damage to Property
- Fire/Explosion
- General Claims Advice
- Grounding
- Non-contact damage
- Passenger liabilities
- Penalties
- Persons saved at sea
- Special cover - carriage of cargo
- Special insurance cover
- Spillage
- Stowaway liabilities
- Third Party (Visitor)

Key issues

- Leaking hatch covers
- Water ingress from the bilge / ballast system
- Too much ballast remaining on board
- Loose rust contaminating the cargo

Key issues

- Hatch covers and fittings
- Ventilation system
- Access hatches

Cargo damage due to bilge/ballast system



Leaking Hatch cover



Wet cargo damage



Wet damage



Hatch cover concerns



Coamings and drains



The Good

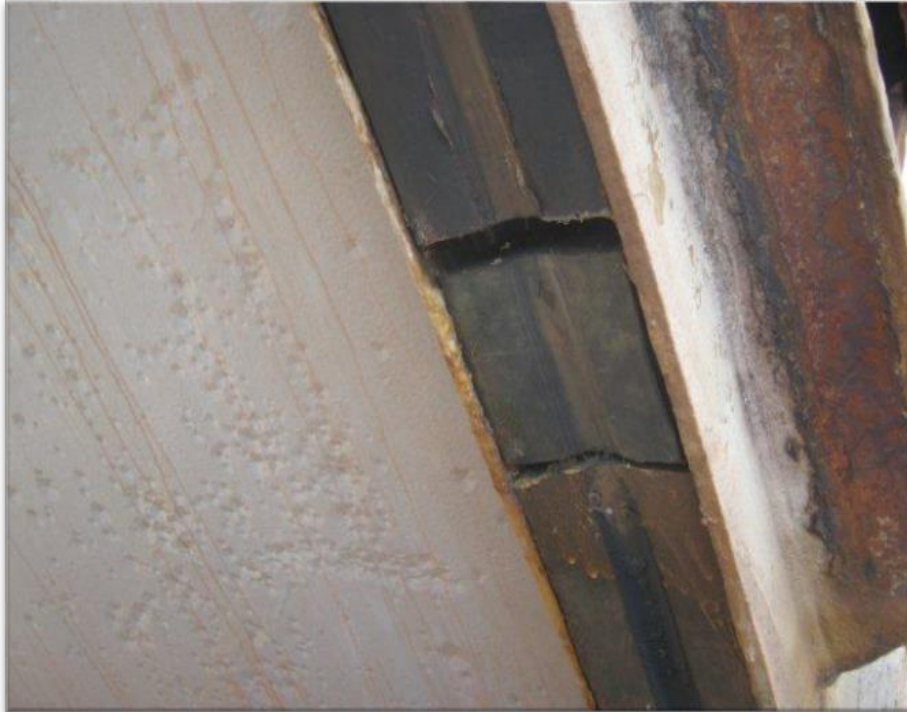


The Bad

Hatch packing - unsatisfactory



Hatch packing - incorrectly fitted



Hatch cover setup



Properly adjusted drive chains



Poorly adjusted drive chains

Weathertight – no water ingress in any sea condition



Preventative measures

- Procedures
- Due diligence
- Maintenance- effective regular checks- tests
- Defence /collection evidence

- ISM relates to the whole of ship management
- Knowledge of cargoes:
 - ship staff
 - shore staff including chartering/operations, legal and insurance
- Master and crew must be suitably qualified and trained to carry out their functions – Cargo and maintenance
- Continuous improvement in knowledge of cargo acceptance and handling is part of the ISM

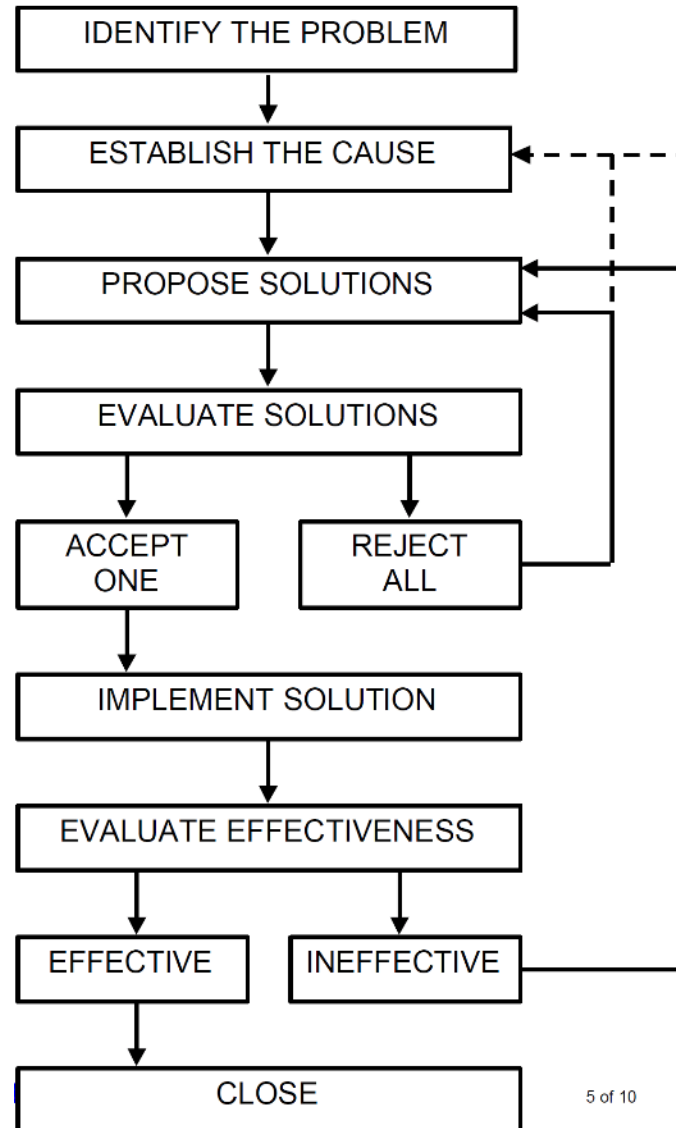
Problem areas

- Insufficient knowledge, ability of ship's crew
- Missing manuals or drawings
- Replace packing rubber and but do not adjust the bearing pads

Planned maintenance system

- Is it working? If not what do you do?
- Check packing, drain channels, pads, cross joints etc regularly

Corrective action plan



Hatch cover checks and tests

- Class carry out a close up inspection / thickness measurement of the cargo holds, ballast tanks as part of SAFCON or intermediate survey
- Class do not test unless there is a known / suspected leak
- Just because a ship has passed a class survey does not necessarily mean it will pass a weathertight integrity test and is cargo worthy.

Loss prevention summary

- Continuing and regular maintenance is generally more effective and less expensive than a sporadic inspection and major repairs
- Regular checks and tests (ideally UST), always with a good visual inspection
- Training and knowledge essential
- Manufacturer's manual has required information
- If in doubt, ask for help



Walter Vervloesem (FNI) - Chairman IMCS Group:

19 offices worldwide - Marine surveys & consultancy - Focus on ship & cargoworthiness inspections

IMCS Training Academy:

Specialized & practice-oriented training courses for marine professionals

Development of tailor-made ship inspection systems & training inspectors

IMCS Diagnostics:

Ultrasound based condition monitoring



Shipping industry: Business model

- Transporting cargo and delivering same:
 - ...in time
 - ...in good condition
 - ...in a safe and
 - ...environmentally friendly way!

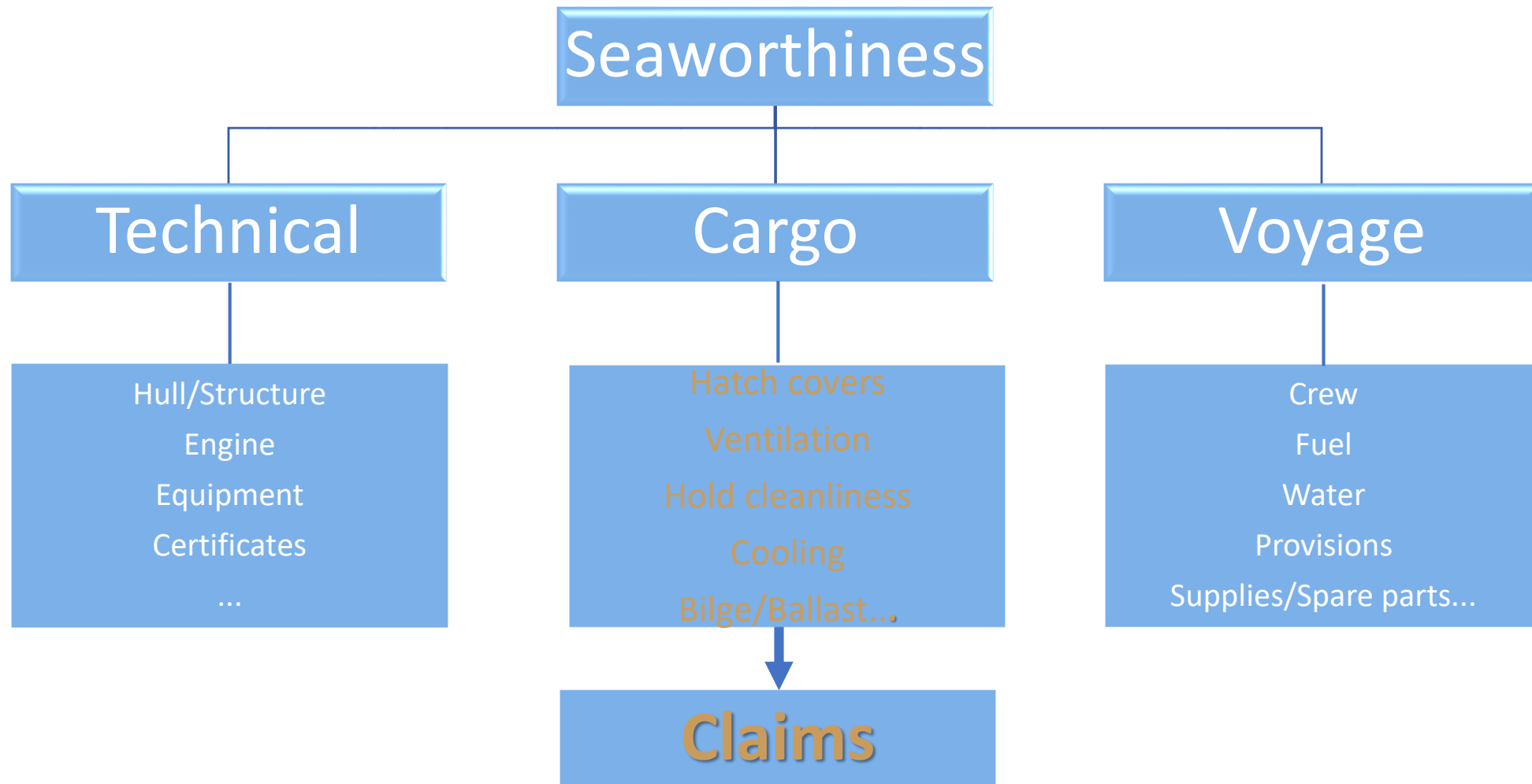
Shipping industry: Impact of cargo damage

- Delays
- Stevedores loss of output
- Storage issues (damaged cargo)
- Separating of damaged cargo
- Loss of cargo
- Reconditioning of cargo
- PSC attention due to prolonged stay in port
- Legal costs
- Unsatisfied customers
- P&I cover under pressure
- Unscheduled repairs to hatch covers to be carried out

EFFICIENT???



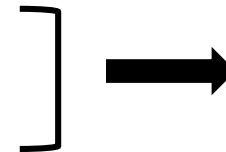
Seaworthiness v/s cargoworthiness



Seaworthiness v/s cargoworthiness

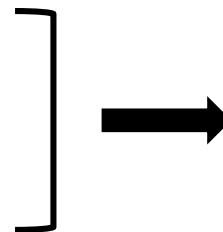
- Insurance: cargo underwriters generally look for:

- IACS Class → Class & statutory certificates
- PSC → Statutory instruments
- IG Group → Recovery
- < 25 years age → Relevance?



Technical Seaworthiness

- Min. Standard = Technical seaworthiness
- Claims = Cargo related = Cargoworthiness



Seaworthiness v/s cargoworthiness

- Key equipment that supports business model:
 - Hatch covers
 - Bilges
 - Ballast tanks
 - Hold preparation/FW washing

Seaworthiness v/s cargoworthiness

- Due diligence: Tests to ensure reliability & confirm operational status
 - Hatch covers → US test & visual inspection
 - Bilges → Suction – backflow – visual inspection
 - Ballast tanks → Pressure test (tanks, vents/sounding pipes)
 - Holds → Preparation → FW washing & silvernitrate test

Hatch covers

- Hatch cover problems:
 - ...in time → Opening/closing issues & delays
 - ...in good condition → Wet damaged cargo
 - ...in a safe → Accidents & personal injury
 - ...environmental friendly way! → Pollution



Hatch covers & Loadline

- Loadline Convention:
 - Safety ship & crew
 - Cargo loaded & Freeboard
 - Freeboard = extra buoyancy = safety
 - Hatch covers
 - Strong
 - Secured
 - Weathertight in ANY sea condition



Hatch covers & Loadline



"Weather tight means that in **ANY** sea condition water will not penetrate into the ship" (Reg. 3-12). (**from the weatherside**)

Hatch covers & Loadline

- Watertightness = Risk
- Risk management = reducing risk
- Watertightness ≠ Rubber packing alone
- 3 safety barriers



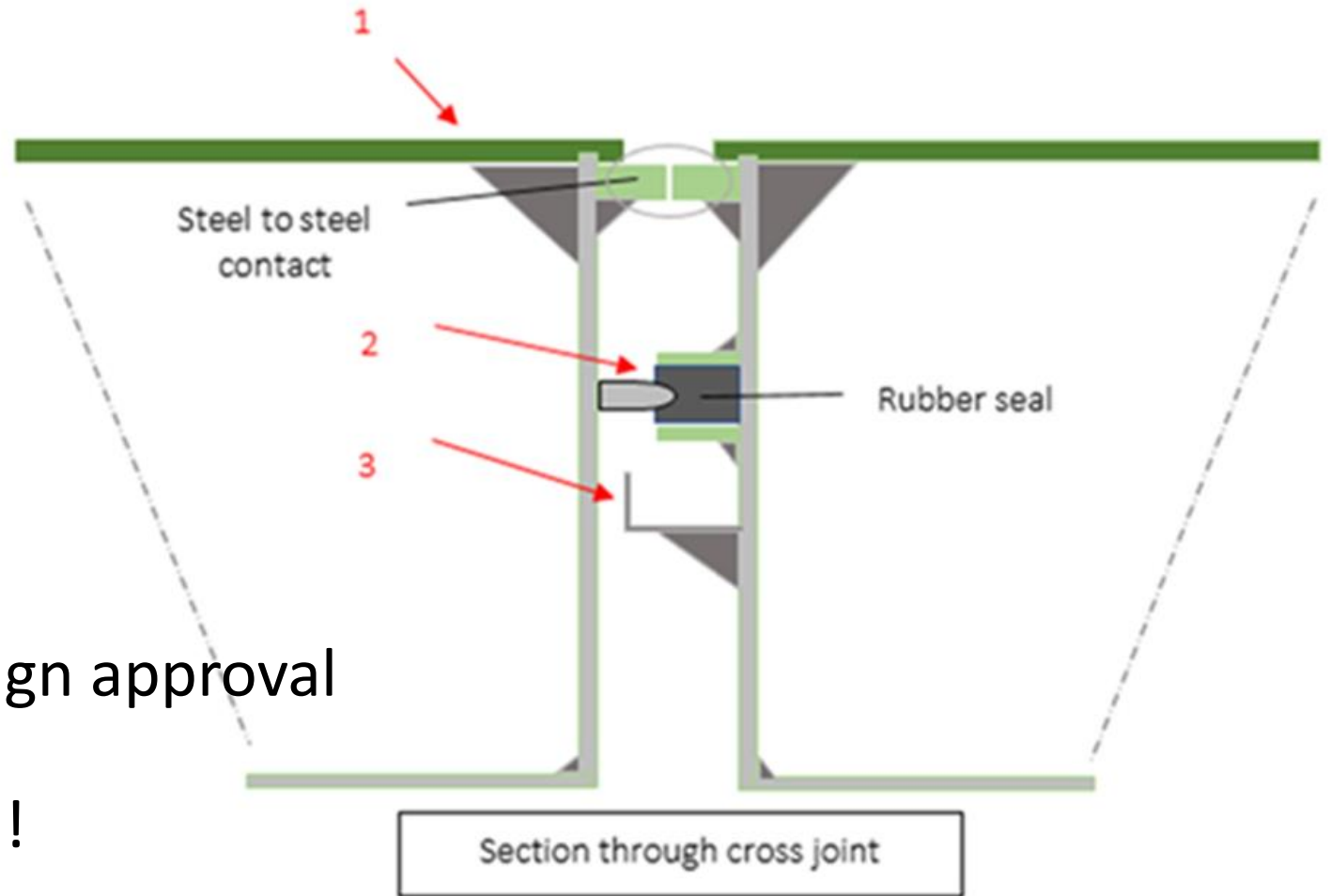
Hatch covers & Loadline

3 safety barriers:

- Steel panels
- Rubber packing
- Drain channel

Weathertight & safe → Design approval

Design approved: Changes!!



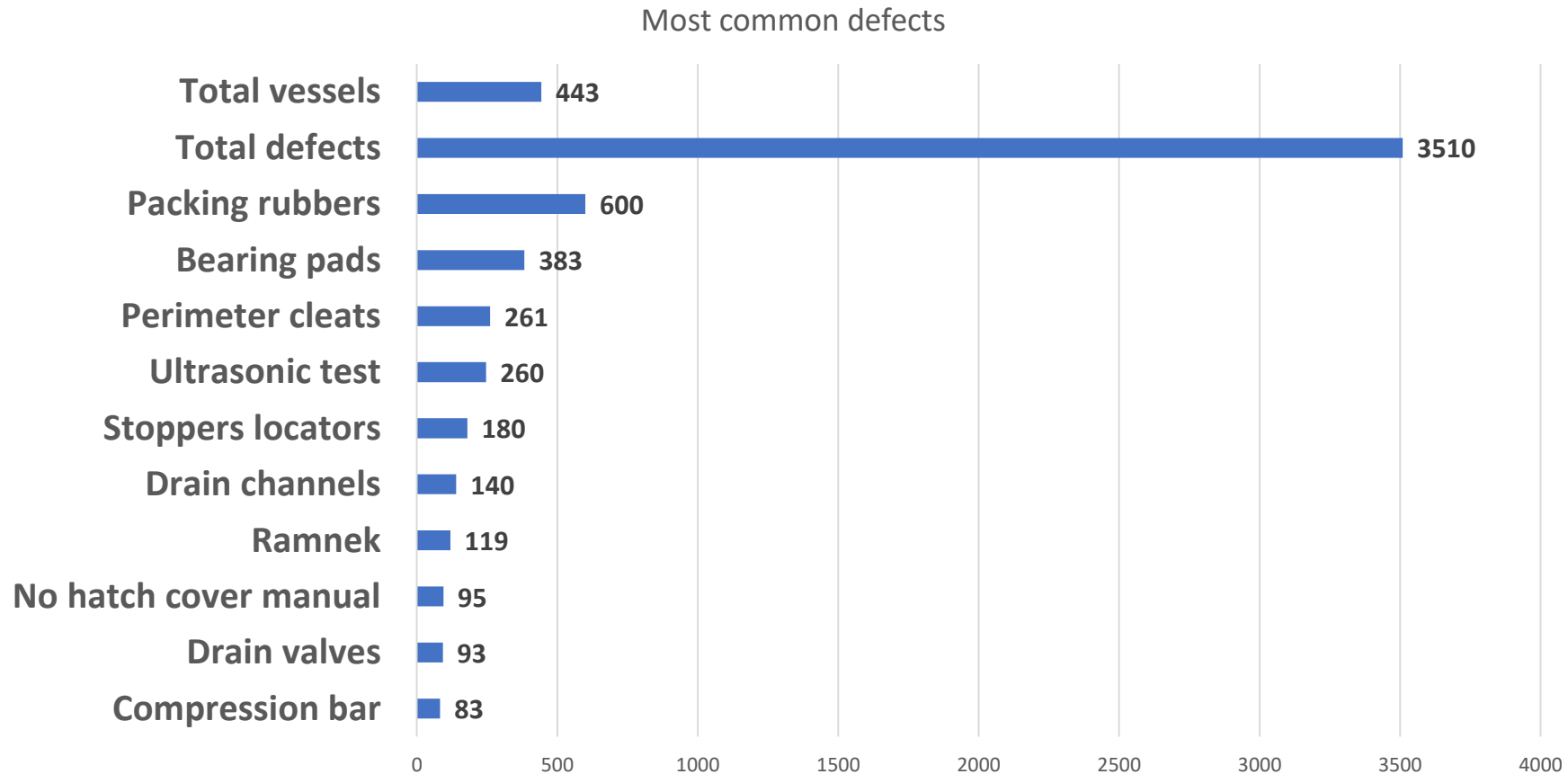
Hatch cover inspection & visual inspection

- Weathertightness: Not only in port but also when at sea!
- Maintaining weathertightness during voyage → Key parts = MM work!

HATCH COVER KEY ITEM	INSPECTION GUIDELINES
Panels:	Structural integrity, corrosion, cracks
Bearing pads:	Wear, skirt clearance, clean/friction
Locators & stoppers:	Clearances
Packing rubber:	Size, line compression, design compression, permanent set, off-centre imprint
Compression bars:	Strong, straight, smooth, round edged
Securing mechanism:	Adjustment, in place, strength of all component parts
Drains:,	Clean, free, fire caps
Opening/closing mechanism:	Oil leakage, operation speed, free moving, abnormal sound, vibration

Hatch cover inspection & visual inspection

Certificate v/s reality v/s cargoworthiness

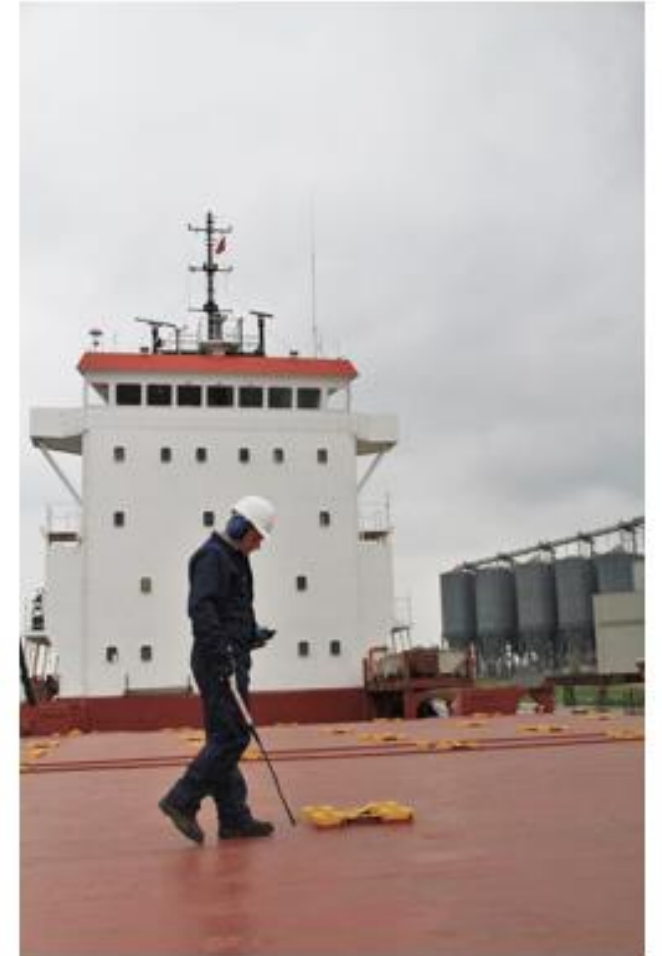


Hatch covers & Loadline

Frequently seen defects



Hatch cover inspection & ultrasound testing



Hatch cover inspection & testing

- Ultrasound testing:
 - Great tool in the hands of an experienced operator
 - Risk:
 - Improper/incorrect use
 - Wrong evaluation/interpretation of test results

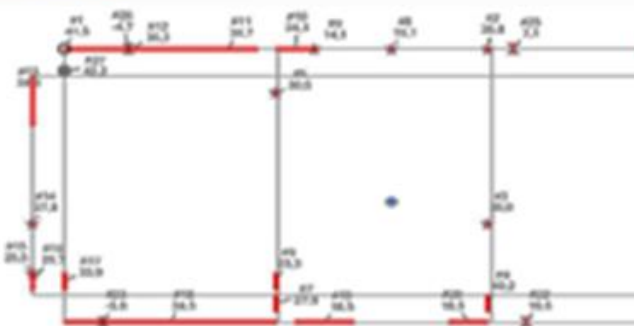


Sherlog Hatch Cover Test Report

Vessel Name	2840 n°	Operator name	WALY
Port	EGYPT/ROHM	Operator certificate n°	SDT04
Date	2013-05-22	Sherlog serial n°	22010
Hatch Type	#1 Folding = 3 panels	Sherlog calibration till	2013-
		Hatch Type	#2-15

Functional test transmitter (dbuV)						
1	2	3	4	5	6	7
106,4	105,4	105,0	105,3	105,0	105,3	111

Hold at:	
Hatch at:	



#	Leak type	dbuV	A	Sensor #	Date/Time measure (CT)	Com
1	Open Hatch	45,8	80	1041130	2013-05-22 05:42	
2	Spot Leak	36,3	80	1041130	2013-05-22 05:43	
3	Spot Leak	36,3	80	1041130	2013-05-22 05:44	
4	Linear Leak	46,2	80	1041130	2013-05-22 05:46	
5	Spot Leak	36,3	70	1041130	2013-05-22 05:46	
6	Linear Leak	23,3	80	1041130	2013-05-22 05:46	
7	Linear Leak	21,0	70	1041130	2013-05-22 05:47	
8	Spot Leak	18,3	80	1041130	2013-05-22 05:50	
9	Spot Leak	14,3	80	1041130	2013-05-22 05:51	
10	Linear Leak	24,3	70	1041130	2013-05-22 05:51	
11	Linear Leak	24,7	80	1041130	2013-05-22 05:53	
12	Linear Leak	36,3	80	1041130	2013-05-22 05:54	

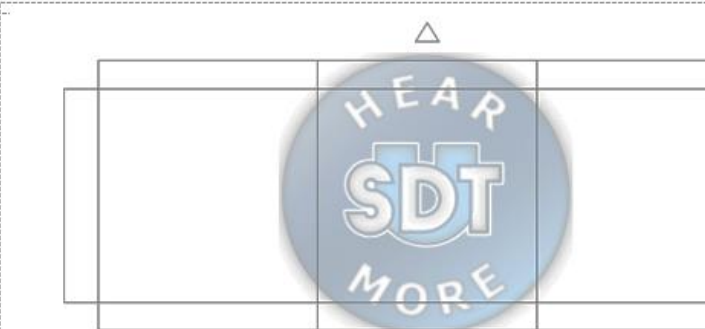


Sherlog Hatch Test Report

Vessel Name	TESTER	Operator name	Your Name
IMO n°	1234567	Operator certificate n°	SDT00000000-0
Port	Utopia	Sherlog serial n°	0
Start Date	14/7/17 - 12.00	Calibration date	2013-01-01
End Date	14/7/16 - 12.23	Type	Folding

Functional test transmitter (dbuV)

1	2	3	4	5	6	7
95	94	99	102	96	100	95



Created by SDT International, Sherlog Report

Measurements

Hold: 1 Hatch: 1

#	Leak type	dbuV	A	Sensor #	Date/Time measure	Comment
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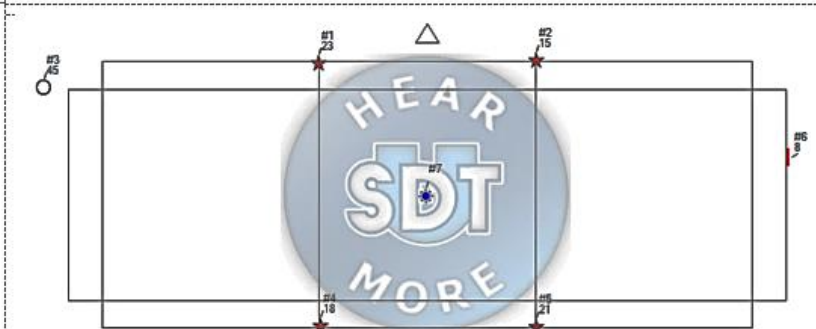


Sherlog Hatch Test Report

Vessel Name	TESTER	Operator name	Your Name
IMO n°	1234567	Operator certificate n°	SDT00000000-0
Port	Utopia	Sherlog serial n°	0
Start Date	14/7/17 - 12.00	Calibration date	2013-01-01
End Date	14/7/16 - 12.23	Type	Folding

Functional test transmitter (dbuV)

1	2	3	4	5	6	7	8
95	94	99	102	96	100	95	98



Created by SDT International, Sherlog Report Creator

Measurements

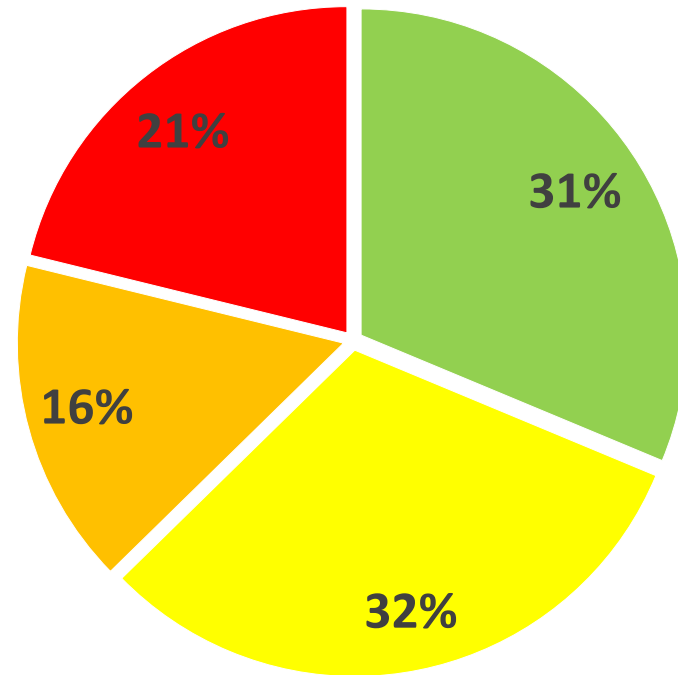
Hold: 1 Hatch: 1

#	Leak type	dbuV	A	Sensor #	Date/Time measure	Comment
---	-----------	------	---	----------	-------------------	---------

1	Spot Leak	23		0	2016-06-25 12:19	
2	Spot Leak	15		0	2016-06-25 12:19	
3	Open Hatch	45		0	2016-06-25 12:19	
4	Spot Leak	18		0	2016-06-25 12:19	
5	Spot Leak	21		0	2016-06-25 12:19	
6	Linear Leak	8		0	2016-06-25 12:20	

Hatch cover inspection & testing

Ultrasonic test



■ No issue ■ Minor issue ■ Major issue ■ Unacceptable

Hatch covers: Remember!

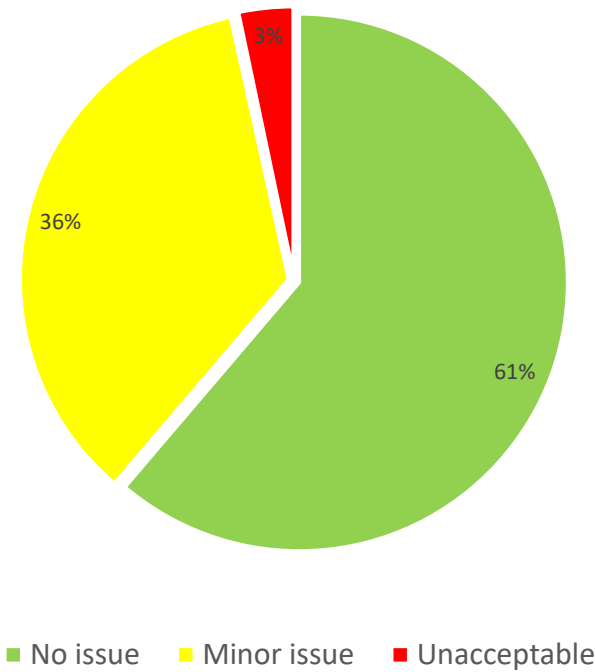
- Packing rubber, compression/resilience → Ultrasound test
- Packing rubber & other key parts → Visual inspection
- Qualified operator + Ultrasound test + Visual inspection → Weathertight
- Documents tests, inspections, maintenance, repairs!
- Hatch covers are key for your business model

Bilges

Visual inspection

- Corrosion
- Strainers/strums missing
- Blocked
- Blanked
- Dirty/smelly

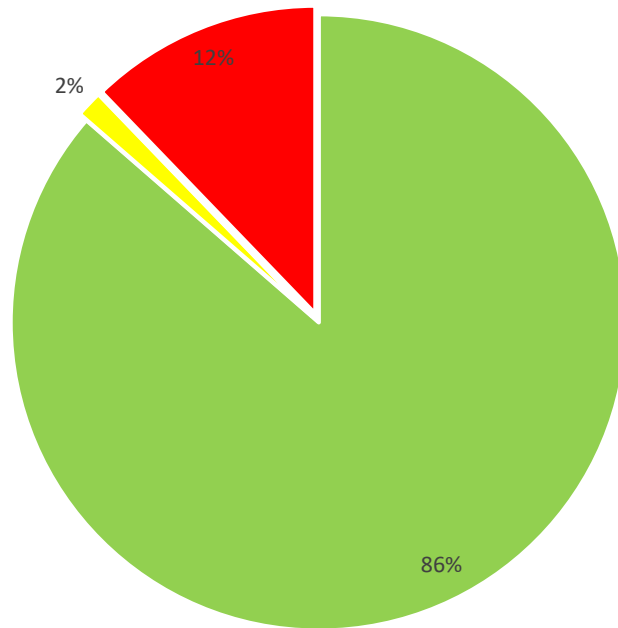
Bilge visual inspection



Bilges

- Suction:
 - Seaworthiness
 - Slow suction
 - No suction

Bilge suction test



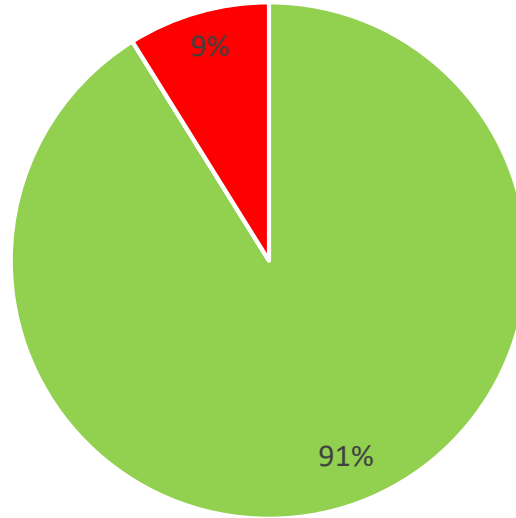
■ No issue ■ Minor issue ■ Unacceptable



Bilges

- Backflow:
 - Big claims
 - Safety
 - N/R valve damaged/blocked

Bilge backflow test



■ No issue ■ Unacceptable

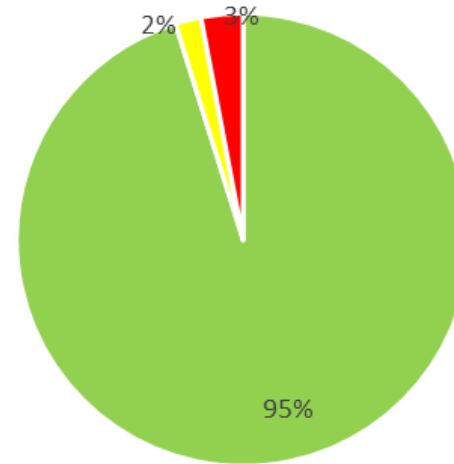


Ballast tanks

Frequently seen problems:

- Damage/doublers/improper repairs
- Leakage from tank plating
- Leakage from manholes/piping
- Master saying they keep waterlevel below crack/hole!!

Ballast tank pressure test



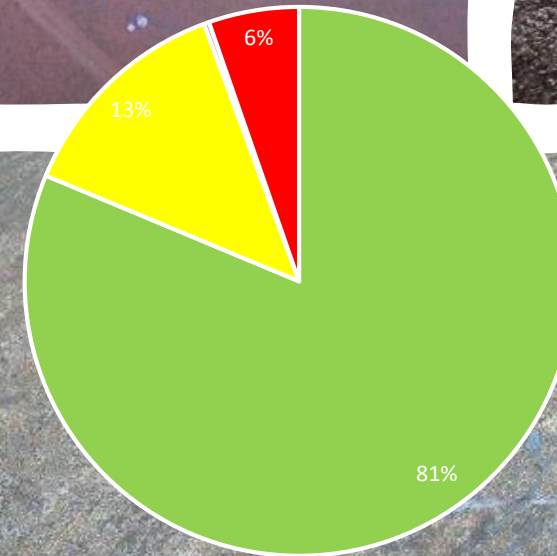
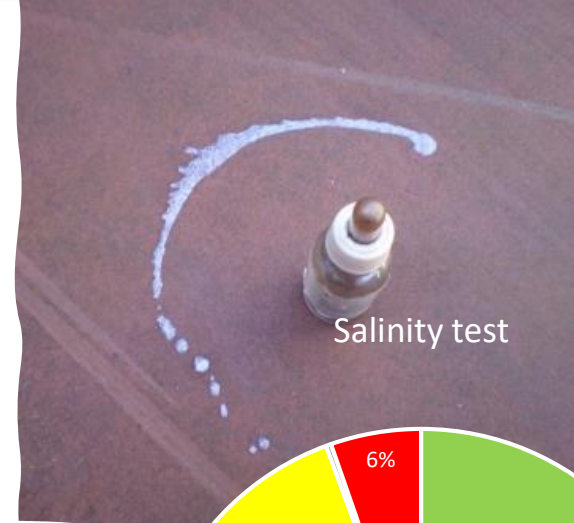
■ No issue ■ Minor issue ■ Unacceptable



Preparation:

Hold preparation:

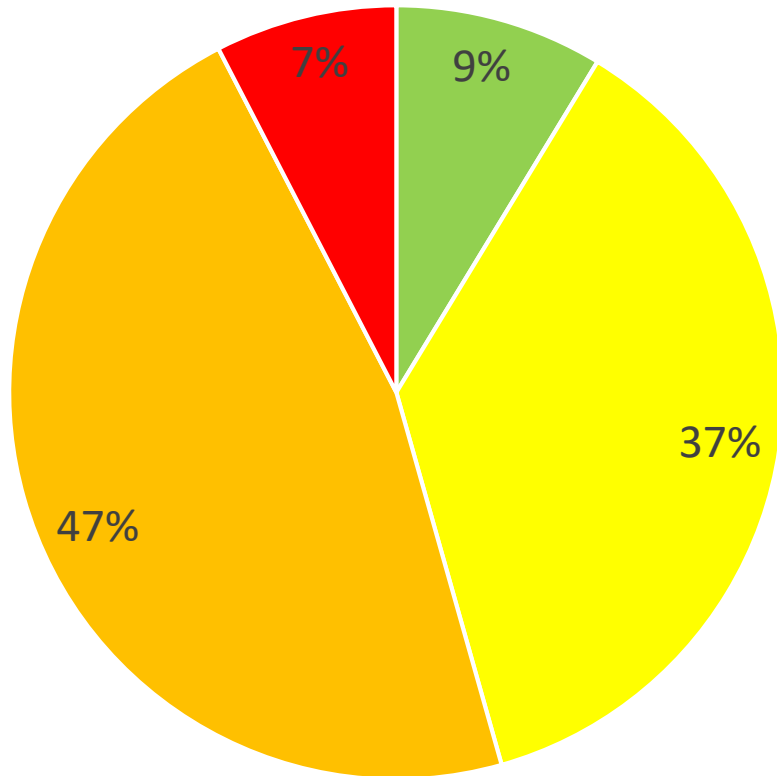
- Ventilation/condensation claims
- FW washing procedures
- River water ≠ Fresh water
- 19 % Reacting to Silvernitrate
- Silvernitrate on board?



■ No issue ■ Minor issue
□ Major issue ■ Unacceptable

Cargoworthiness rating

Initial rating after inspection



■ Aantal groen ■ Aantal geel ■ Aantal oranje ■ Aantal rood

- All ships certified & class/statutory compliant
 - Seaworthy?
 - Cargoworthy?
 - NoR Validity?
 - Enhanced exposure to claims!
 - Business model???

How to ensure cargoworthiness compliance?

- Ensure technical seaworthiness
- Improve cargoworthiness:
 - Procedures, documents & manuals
 - Inspections
 - Tests
 - Record keeping & claim file preparation
 - Training
- Observe voyage seaworthiness:
 - Spares
 - Checks during voyage
 - Seamanship
- Be prepared!

HATCH COVERS & CLAIMS

To prove due diligence, be sure you can document:

- Work schedules
- Maintenance logs & test reports
- Work specifications
- Accounts
- Standing instructions
- Reports and correspondence
- Logbook entries
- Hatch patentee manual
- Holding valid (relevant) certificates
- Evidence of planning voyage.
- Proof of operating the ship in a good/seamanlike manner during the voyage (C/C, RPM)
- (Part of documentation to be o/b as part of Owner's SMS and/or required by CSWP or IACS Rec 14)

Conclusions

- Certificates do not tell everything
- Sailing ≠ Trading (Business model)
- Seaworthiness ≠ Cargoworthiness
- Tests are easy & cheap
- Regular inspections & tests necessary & to be documented
- Procedures in your PMS?
- Training & familiarization
- Inspections should be meaningful (facts & figures)



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Cargoworthiness – legal issues

Tina Havdahl

1) The starting point would for a claimant to prove that the carrier has failed to deliver the cargo in the same condition as it was shipped.

- Joint survey
- Prima facie presumption that there is failure when the condition of the cargo is different from description in the B/L

2) A claimant would have to establish the relevant facts which put the carrier in breach of its obligations.

- HV Article III Rule 1 – Seaworthiness
- HV Article III Rule 2 – Care of cargo

HV Article III Rule 1 – Seaworthiness

The Rule requires a carrier, before and at the beginning of the voyage, to exercise due diligence in order to make the vessel seaworthy

- The vessel must be seaworthy in order to meet the perils likely to be encountered on the intended voyage
- The vessel must have suitable and adequate equipment, bunker, crew etc

- Cargoworthiness - the suitability of the vessel to safely carry out the transportation of the intended cargo for the intended voyage
 - If seawater is discovered in the holds, it is considered prima facie evidence for unseaworthiness
- If the Claimant are able to establish that the vessel was unseaworthy and that this breach caused the wet damage to the cargo, the burden of proof shifts to the carrier to prove that due diligence was exercised.
 - diligent procedures and practices with regard to inspection, testing and maintenance important

HV Article III Rule 2 – Care of cargo

- The Rule requires the carrier to properly and carefully load, handle, stow, carry, keep, care for, and discharge the cargo carried (subject to defences Article IV)
 - In accordance with a sound system - general industry practice
 - The Volcafe - the carrier has the burden of proving that they have not been negligent in the care of the cargo before they can rely on an Article IV Rule 2 exceptions. In practice, the burden is therefore on the carrier to disprove causative negligence.
 - The Jordan II - the carrier must not perform loading, handling, stowage or discharge operations, these tasks can now be performed by cargo interests if the parties have so contracted.
- Article IV Rule 2 contains 17 exceptions to a carrier's liability

Wet damage claims under the ICA

- Claims for loss and damage to cargo due to unseaworthiness should be apportioned 100% for Owners.
- The Kamilla - held that the Owners were liable for the full amount of the cargo claim under the ICA although unseaworthiness of the vessel caused only 1% of the cargo to be damaged.

Webinar summary

- Cargoworthiness requires more than just regulatory compliance
- Ship staff have a responsibility
- Maintenance and monitoring
- Knowledge and training
- Test and verify
- If in doubt, ask!

QUESTIONS?



Questions from the audience

In terms of technical standpoint, we are keen to know to what extent an application of hatch seal tapes is workable to prevent the ingress of sea water.

Which parties should be responsible for arrangement of the seal tape.

Questions from the audience



Loss Prevention publications

- Risk Watch (Claims and Legal)
- Crew Watch
- Posters
- Circulars, Bulletins, eg. CCTV
- Britannia News Summary
- New Knowledge area on:

britanniapandi.com





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The concept of "safety
culture" is...
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WELLBEING

Seafarer wellbeing, defined
as the state of...
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MENTAL HEALTH

It is a shocking fact suicide
(or suspected)...
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PHYSICAL SECURITY

As a seafarer it can be
exciting to visit...
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STOWAWAYS

Despite international
efforts, stowaways...
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CYBER SECURITY

Increased connectivity has
given ships the...
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Thank you



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