



**By your side**

# **Hatch Cover Maintenance Best Practices**

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# Agenda

**Club's claims & survey finding statistics**

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**Leak detection tests**

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**Hatch cover maintenance issues**

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**Conclusion**

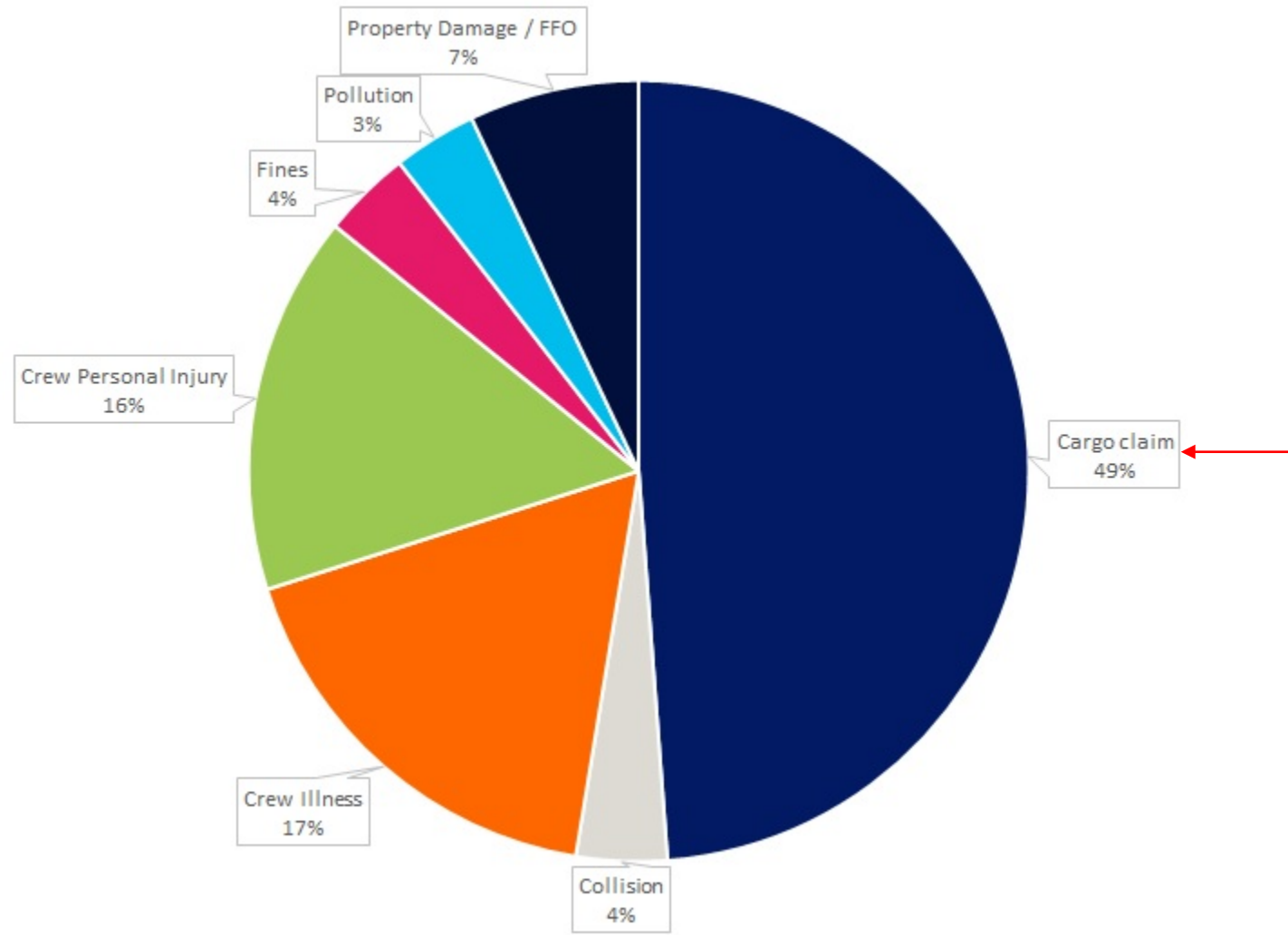
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# Club's claims & survey finding stats



# Club's claims statistics – by number (PY 2010 – 2020)

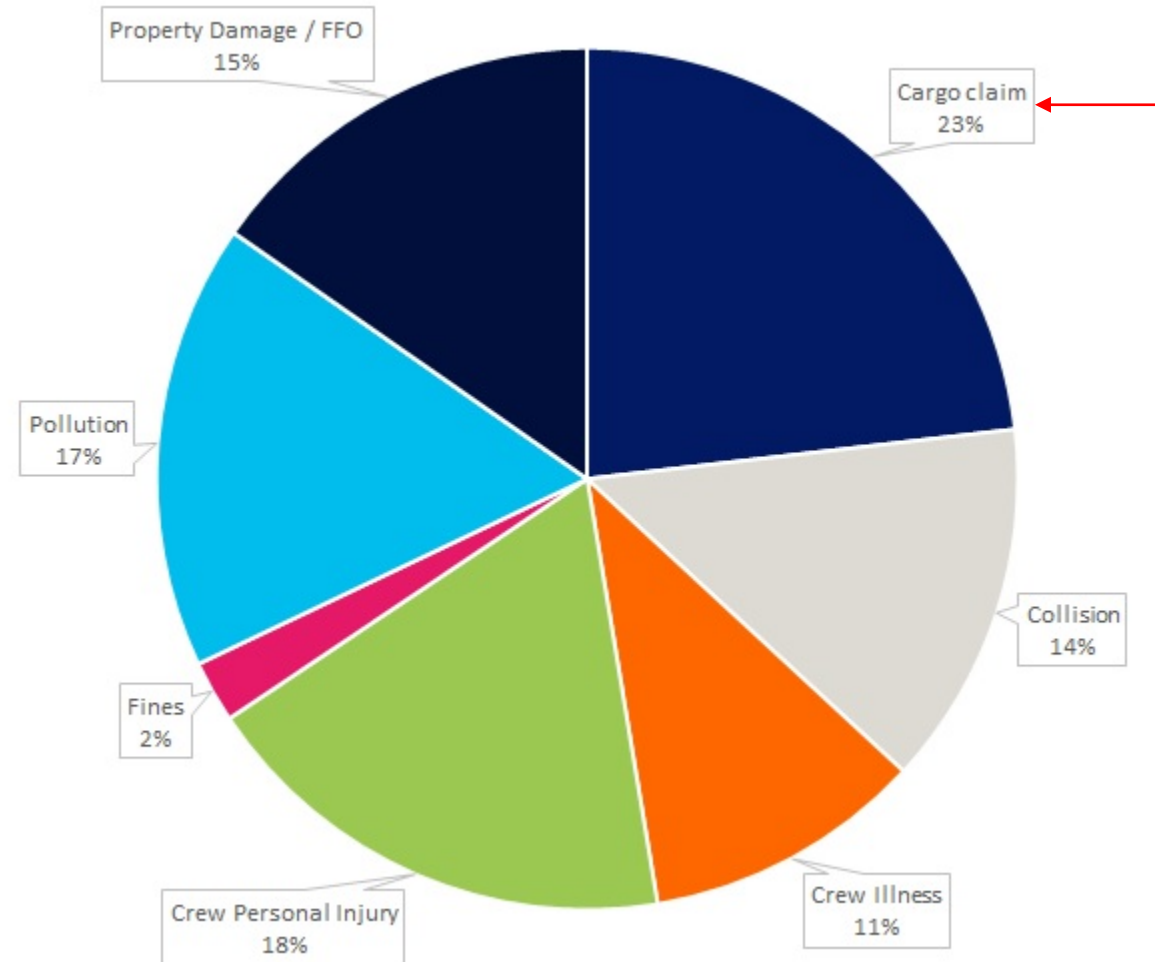
Claims Count by Rule Category





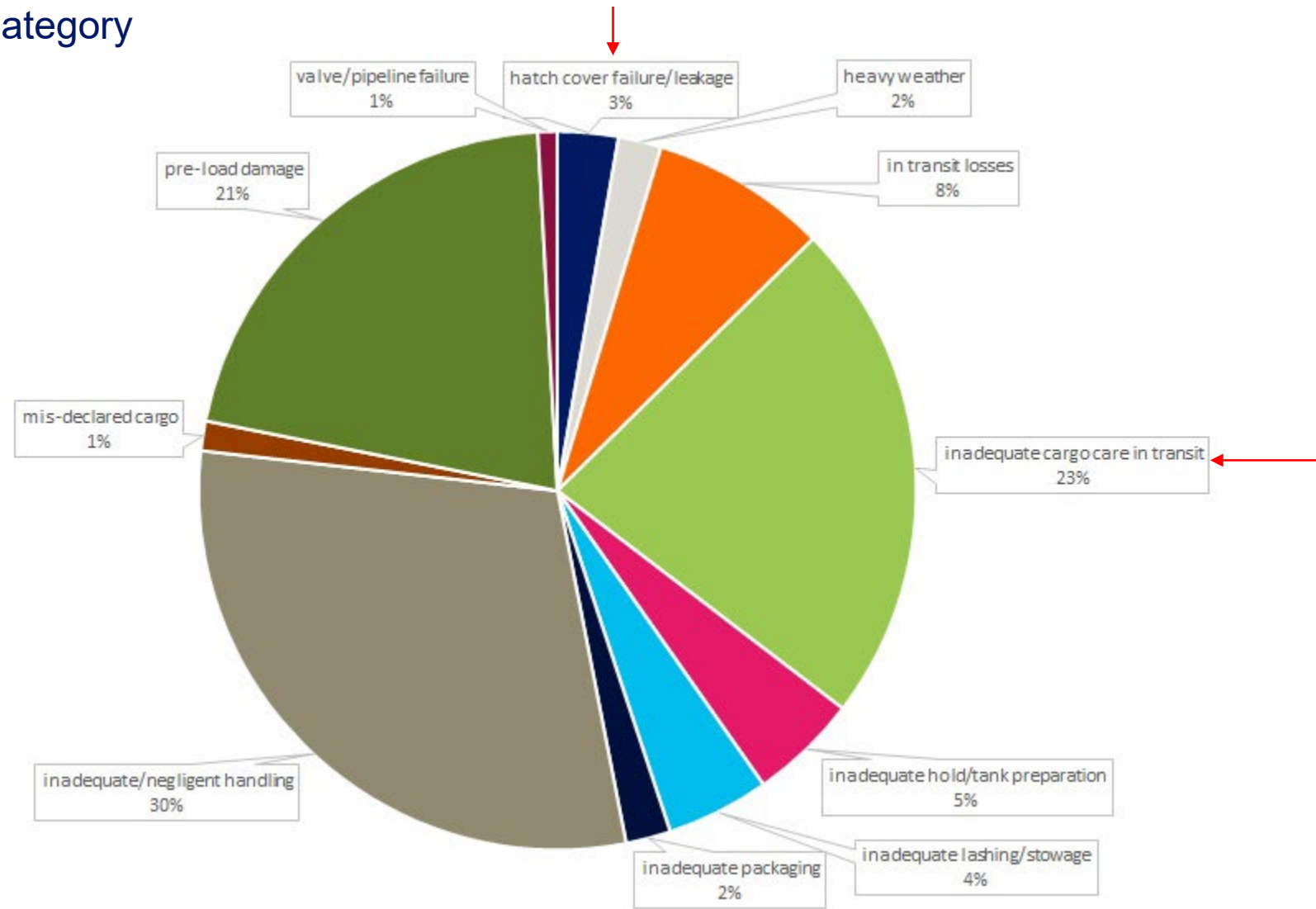
# Club's claims statistics – by value (PY 2010 – 2020)

Gross Claim Incurred USD by Rule Category



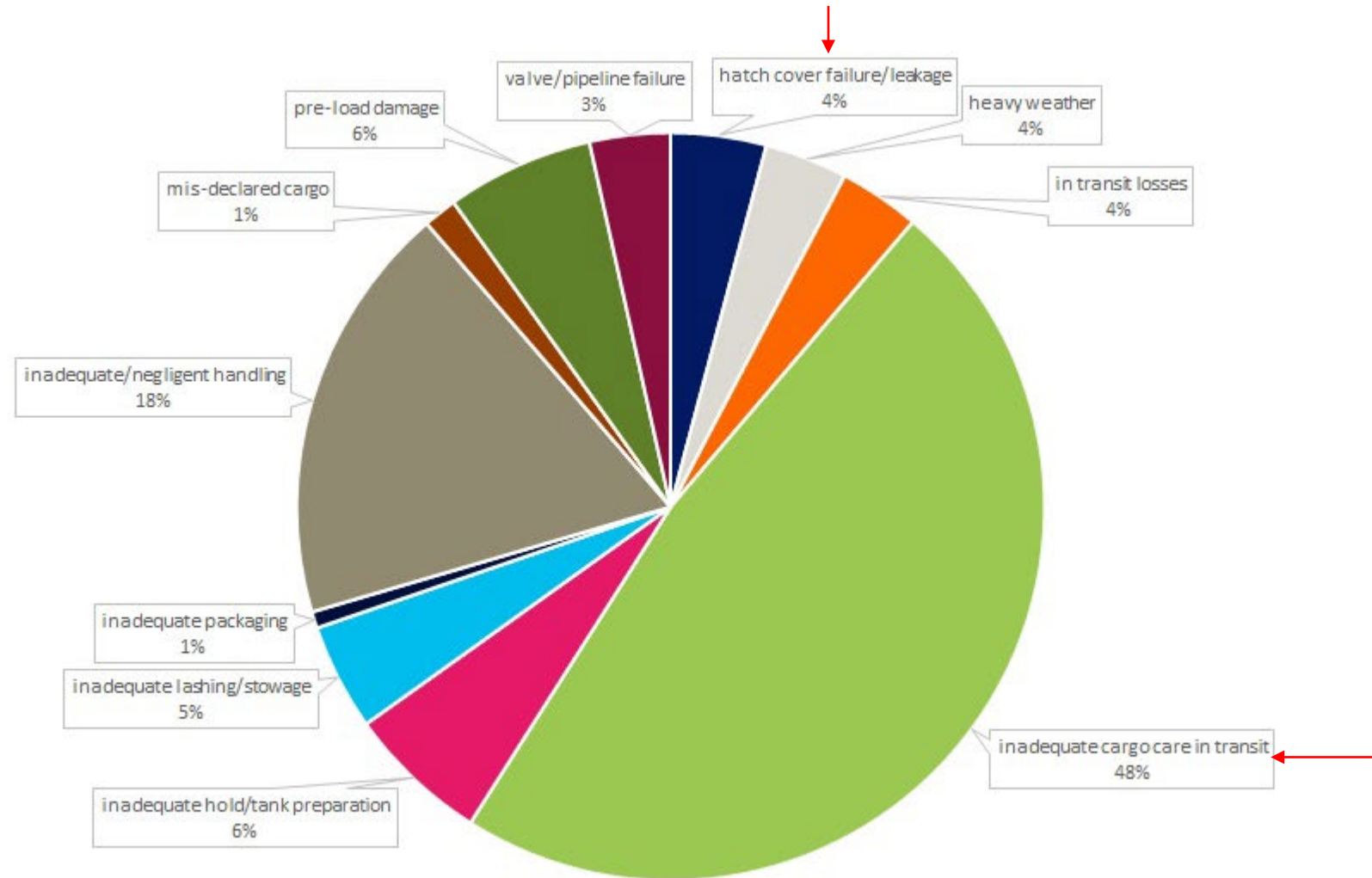
# Cargo claims – by number (PY 2010 – 2020)

Claims Count by Rule Category



# Cargo claims – by value (PY 2010 – 2020)

Gross Claim Incurred USD by Rule Category



# LP Condition Surveys (PY 2016-2021)

## Hatch Cover Defects

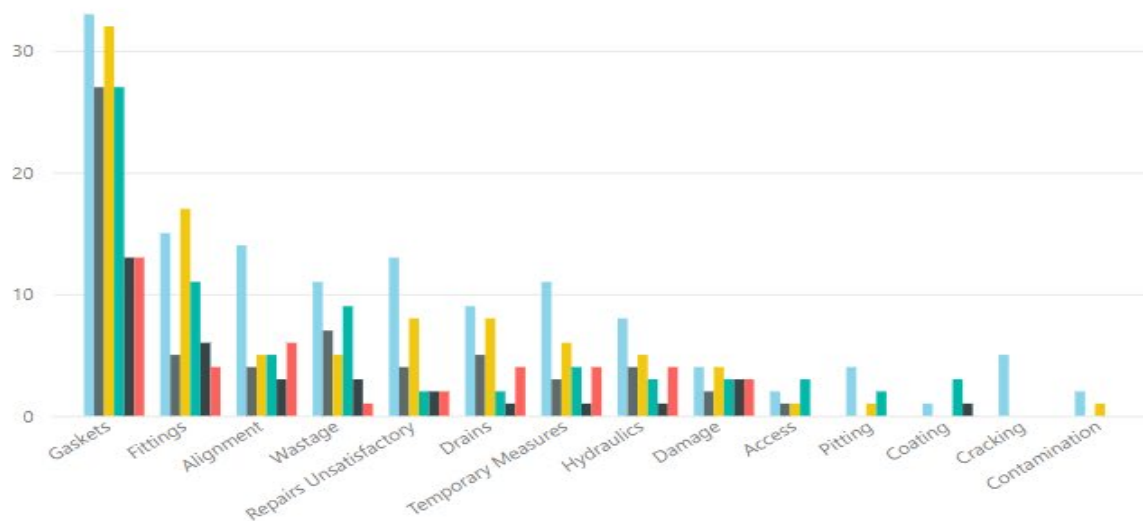
AVG Defects per survey - Hatch Covers

PolicyYearId 2016 2017 2018 2019 2020 2021



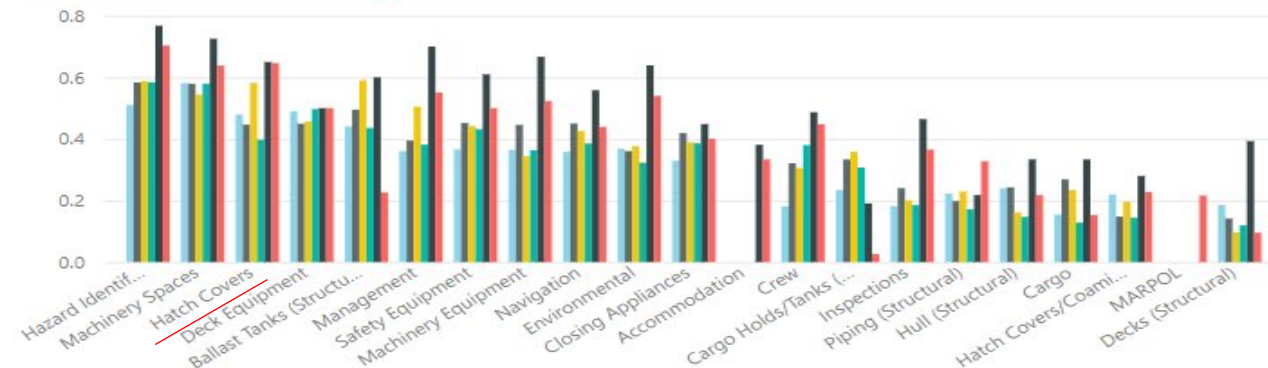
AVG Defects per survey - Hatch Covers

PolicyYearId 2016 2017 2018 2019 2020 2021



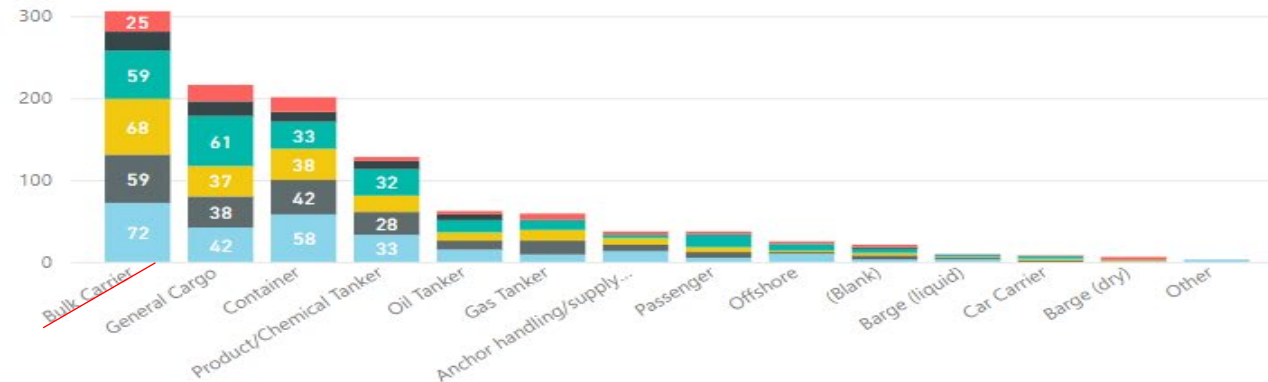
AVG Defects per survey

PolicyYearId 2016 2017 2018 2019 2020 2021



Number of Surveys by Ship Type - PY2019/20/21

PolicyYearId 2016 2017 2018 2019 2020 2021





# Leak detection tests



# Leak detection tests

Do they all check weathertightness?



**Ultrasonic test**



**Water hose test**



**Chalk test**

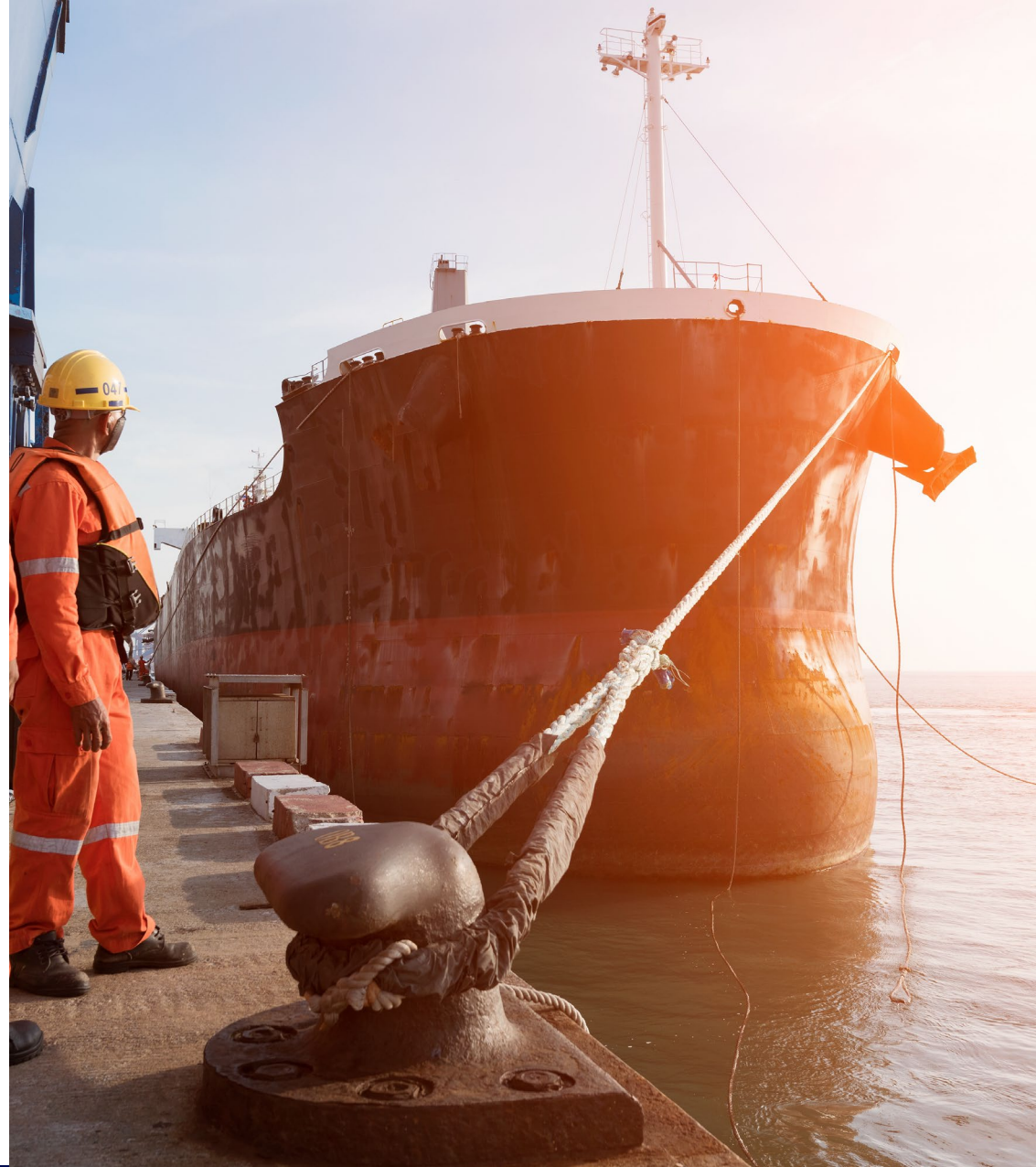


**Light test**



**Visual check**

# Hatch cover maintenance issues





# Rubber packing

## Surface damage

- Cut, chafed, damaged... should be replaced immediately
- Do not change small sections

## Aged gasket

- Loss of elasticity, hardens



# Rubber packing

## Permanent imprint

- Rubber packing that is permanently impressed to 50% of its design compression should be completely replaced
- Design compression, as a rule of thumb, is around 25% of packing thickness
- Result of poor steel to steel contact





# Landing pads

## Landing pads

- Size and dimensions dependent on weight of hatch cover
- Should always be checked for wear and repaired to original design if worn out
- Cassette type landing pads are easily replaceable
- If the wear is greater than 4mm, increased pressure on the gasket will cause damage. Landing pad repair is essential.



# Compression bar



# Double drainage system



# Hatch cleats

## Cleats

- Cleats and wedges hold the hatch in position with adequate gasket compression
- Rubber washer or 'grommet' to aid compression
- Compression of washer determines tension in the cleat
- These washers are prone to both physical damage and age hardening (weathering)





# Access doors, hatches and ventilators

Often forgotten but equally important





# Conclusion



# Conclusion

- Cargo wet damage claims are expensive
- Proactive maintenance in line with maker's guideline is paramount
- Exercise due diligence to ensure that your ship is seaworthy & cargo-worthy
- Hatch cover ultrasonic test is a great tool to identify weak spots / areas of poor compression

