

Cargo wet damage – back-flow through the bilge system



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The club frequently handles cargo claims that can be attributed to back-flow through the cargo hold bilge system.

Case study

A recent claim involved a cargo of Potash loaded in bulk. On arrival at the discharge port, a significant amount of cargo was found to be wet.

The investigation concluded:

- although there was double valve segregation between the bilge and ballast pump line, one butterfly valve had a damaged seal and was leaking, while the other valve was not closed properly. It was blocked with residues of the previous cargo;
- the ship's officers were not familiar with the cargo hold bilge system or where the bilge and ballast systems were common;
- there were no cargo hold bilge high-level alarms;
- soundings had not been taken throughout the voyage.

The cost of the claim for the damaged cargo was €300,000.

Outputs/learning points

It is essential that ships' officers are fully aware of how the bilge system functions. Of particular importance is the knowledge of the valves, especially isolating valves and cross-over connections between the bilge and ballast system.



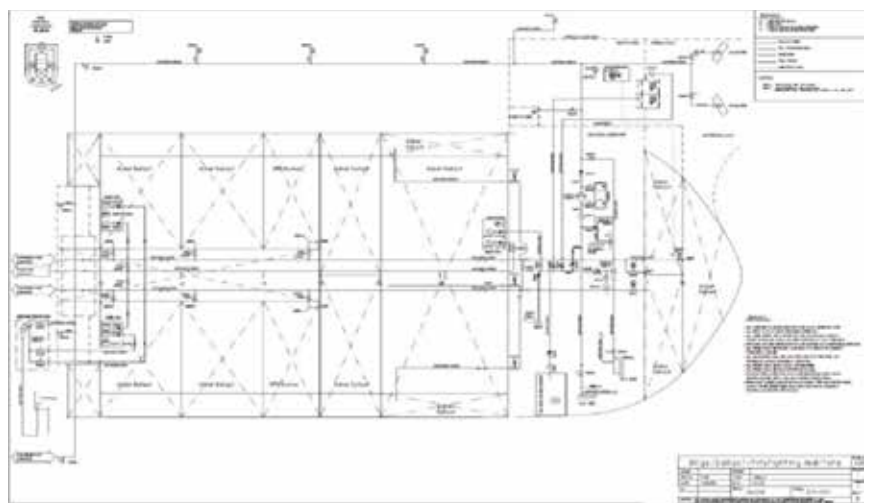
Water ingress via a faulty bilge valve will cause cargo damage

One of the most important tasks in hold preparation is to ensure that bilge wells, lines and valves are clean and in operational condition. Bilge lines must be tested by an experienced crew member to ensure that non-return valves are functioning correctly and not allowing back-flow into the cargo hold. If fitted, the bilge high-level alarm must be tested and confirmed as operational.

For ships loading water-sensitive cargoes, the following loss prevention checks are recommended:

- regular inspection of the bilge line, by pressure testing and checking for back-flow into the cargo holds;
 - check the effectiveness of bilge non-return valves to ensure they are operating correctly and free of cargo residues/debris;
 - ensure cargo hold bilge wells are clean, dry and free of any previous cargo residues;
 - ensure bilge suctions have an efficient strainer;
 - when the cargo hold bilge system is not in use, ensure all valves are effectively shut to prevent water ingress into holds. Valves should be closed, with measures in place to ensure that they stay closed (visible signs).
- test before each loading that bilge high-level alarms are fully operational. It is recommended that cargo hold bilge high-level alarms are fitted even if this is not mandatory;
 - regular bilge sounding is good seamanship practice. Hold bilges should be sounded daily at sea, weather permitting;
 - when water is found in the cargo holds, a systematic investigation must be carried out immediately to identify where it is coming from. Support and advice should be provided by shore management.

Masters are reminded of the importance of properly loading, stowing and caring for cargo, so that the cargo is delivered to the consignee free from damage.



Get to know your bilge system