

Precautions to be Taken Against Cargo Wetness Originating from Ballast Tanks and Cargo Hold Bilge Wells

As Turk P&I, in addition to the traditional cargo wetness incidents caused by hatch covers, we have recently frequently encountered cargo wetness incidents in cargo holds recently, caused by cargo hold bilge wells and ballast tanks. These types of claims are costly in general when cargo has been damaged by salt water and can cause delays considering the damaged goods must be separated from the rest of the cargo.

Accordingly, we felt the need to inform our insureds and especially our seafarers about the issues to be taken into consideration.



The primary claims caused by ballast tanks are seen as structural defects especially from side ballast tanks and the double bottom ballast tanks. These structural deficiencies that cause this can be roughly stated as reduced ballast tank steel plates thickness on tank top plates and side tanks, not properly closed/sealed ballast tank entrance manholes in tank top plate and side walls, cargo wetness issues that occurs following ballasting operations whilst cargo on board at ports.

To prevent the above-mentioned problems, the issues that crew members/managers should pay attention to can be listed as follows:

- Carefully monitoring steel thickness results on mentioned areas, stated in Ultrasonic Measurement Report (UTM Report) issued by classification societies or authorized parties during each renewal and intermediate survey periods,
- In case the steel thickness measurements in these areas approach suspected areas status due to corrosion, the follow-up should be increased, especially by crew members and owners/managers.
- Periodical internal examinations of ballast tanks by crew members after taking proper enclosed spaced entry measurements,



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Upon graduation from Maritime Academy in 1990, Capt. Pamuk joined Zihni Shipping and worked more than 18 years as Master Mariner on board in various size of bulk carriers/tankers for 12 years, and as ISM Manager/Ship Operations Manager/General Manager at shore management for 6 years, respectively. In 2008, he joined as a Marine Surveyor to Kalimbassieris Maritime which is being acted as marine consultants and P&I correspondents of IG Clubs. In addition to overseeing P&I claims and correspondency for Clubs along with his regular loss prevention/damage related surveys, he also attended on various casualties in Turkey, assisted to salvage/towage issues, investigated pollutions and human injuries/loss of life. Then he acted as Head of P&I Department in same company from 2009 until his fall in with Türk P&I Sigorta family as Technical Manager, in the beginning of 2014.



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- Taking ballast tank soundings daily (preferably twice a day) and recording them in the deck logbook,
- Carrying out ballast tank hydrostatic pressure tests periodically by crew member in locations where environmental risks/pollution will not be created (by checking that it overflows from the air ventilation heads on main deck), as well as checking the inside of the cargo hold after overflowing whether there is any leakage or not,
- Checking that the ballast tank manholes in the cargo holds (bolts, nuts and gaskets) are properly closed/sealed,
- Checking the ballast tank sounding pipes and protecting covers that extending from cargo hold to the main deck against possible structural damage (due to impacts that may arise from grab and forklift damages during loading/unloading),

General damages arising from bilge wells, which is our second topic, could be described as the backflow of the water from the bilge line as a result of the improper working of non-return valve, the bilge water in the bilge wells that are not properly cleaned and dried, the problem of the bilge valve in any other cargo hold on the same bilge line, not fitting or properly fitting of strum boxes in the bilge well.

Accordingly, we can roughly classify the measures that can be taken against damages caused by bilge wells as follows.

- While washing the ship's holds after discharge, the previous cargo residues should not be swept directly into the bilge wells and the accumulated cargo should be removed from the cargo hold in advance,
- Discharging previous cargo residues from bilge wells, upon completion of cargo hold washing operation.
- Making final checks to ensure that the bilge well is clean and dry, particularly before loading operations,
- Properly fitting of strum boxes/strainers in the bilge well,
- If bulk cargo loading is to be carried out, wrapping the bilge well covers with burlap and fixing these burlaps to the tank top plate with tapes and thus preventing cargo parts from entering the bilge wells,

Checking possible valves periodically that connected to fire or ballast lines in case they are left open (Crew members engaged in pumping cargo hold bilges should ensure that all valves isolating the bilge lines from bilge/general service/ballast pumps and eductors are closed upon completion of pumping bilges),

- Just like ballast tank soundings, bilge well soundings should be taken daily and recorded in the deck logbook,
- Periodic tests of bilge alarms on ships designed for hold bilge alarms,
- Proper marking and labeling of bilge valves, particularly in the engine room,
- Cleaning the bilge sounding pipes by applying pressurized water or air from the main deck while the ship is in ballast condition,
- Lastly, and in our opinion, the most important thing is to check the non-return valves connected to the bilge pumps and to periodically check whether the water returns from the bilge line to cargo hold. For this, it is sufficient to temporarily stop the pump for approximately 1 minute while the bilge pump is operating. If the water does not return after this time, it can be considered that the non-return valve is working, but otherwise, the valve is worn, not completely closed, stuck or damaged.

As a result of all above, the common denominator of these two issues is that ship personnel (regardless of which department they are from) must be familiar with the functioning of ballast and bilge systems, especially know ballast tank lay-outs and be able to follow the lines.

At the end of the day, it should not be forgotten that the actual and possible damages we mentioned are and will be caused by personnel error and negligence as well as structural reasons.