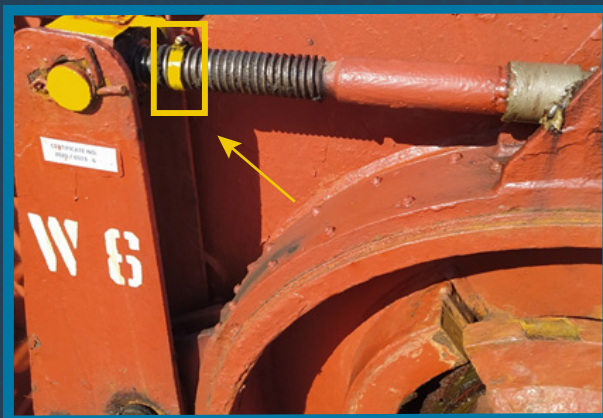


Human Element Maritime Enhancement Tool (H.EL.M.E.T)



HELMET ELEMENT 7.3 [Ref.: Dry - BMS Subject Area 19 'Mooring & Anchoring' (Advanced Level)] Item 4 'Winch brake rendering point'

RIGHTSHIP - Inspection and Assessment Report for Dry Cargo Ships (FOD06) 12 - Section 5: Structural Condition – Para 5.4.11.5, MEG 4 - Section 6: Mooring Winches, Para 6.4.6 Winch Brake Testing/ ISO 3730:2012 – Shipbuilding and marine structures — Mooring winches, OCIMF – Mooring Equipment Guidelines (4th edition), INTERTANKO – Guidance on Mooring System Management Plans (MSMP).

FINDING: During a HELMET assessment, PAS Assessor noticed that a locking nut was placed on the threatened end to mark the winch brake rendering point of mooring winch. The PAS Assessor advised the vessel to remove the locking nut and to mark properly the winch brake rendering point.

IS THIS IMPORTANT?

During vessel's stay at port, mooring winches brakes and lines are expected to safely keep the vessel alongside. Due to factors such as weather prevailing circumstances, passing vessel surge and excessive list or trim during operation, winch brakes should be set as the weakest point of the mooring system. Nevertheless, the vessel must remain alongside safely and without be affected of the above unpredictable situations.

The main purpose of brake testing is to verify that the brake will render at a lower load than the ship design MBL. A locking nut on the threaded end should not be used on the tightening screw, because stopper arrangements may impede the brake setting and reduce the brake holding load.

SUGGESTIONS: A tag should be attached close to winch brake stating the torque value for conventional screw brakes. For spring applied brakes the spring compression distance should be recorded in the Winch Brake Test Log and the mechanism to be secured with a seal.

Once the brakes are tested and calibrated, the torque setting should be recorded in the Winch Brake Test Log. In order for the Ship Operator to control that the winch rendering point has been marked as necessary, a common practice is to request photos by the vessel, as evidence, on a yearly basis and upon completion of the winch brake test, when maintenance works are conducted such as wires and mooring ropes replacement, when there are signs of premature brake slippage or on any other case as per Company's policy.

The render testing should be performed under the supervision and presence of the responsible Officer, who is familiar with this operation. Additionally, the vessel is recommended to have access to a complete set of test equipment, which shall be kept on board and stowed in a dedicated location, in order the winch brake test to be performed by crew, whenever required.

The Brake Holding Load is recommended to be set at 60% of the SDMBL (Ship Design Minimum Breaking Load), which corresponds to the Operational Minimum Brake Holding Capacity.

Notice: Tip of the month is circulated by P@S monthly in an effort to inform the industry of the red flags raised from the implementation of our onshore and onboard HELMET risk assessment program to meet highest standards, carried out by H.EL.M.E.T. Assessors.

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