

# REPORT ON OIL ENGINE MACHINERY.

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29<sup>th</sup> March 1941 When handed in at Local Office 19 Port of Copenhagen  
 Date, First Survey 24<sup>th</sup> May 1939 Last Survey 31<sup>st</sup> March 1941  
 Number of Visits 54

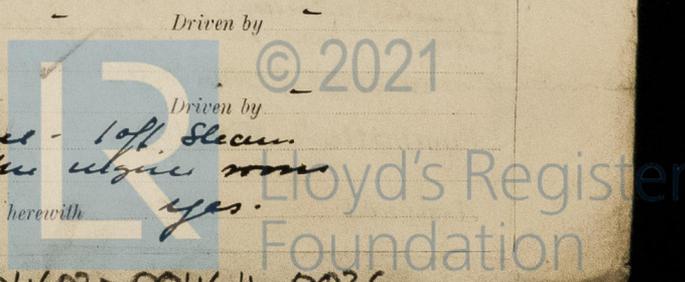
on the Single Screw vessel "HENNING MÆRSK" Renamed HYDRA Tons <sup>Gross</sup> 9842 <sub>Net</sub> 5912  
 at Aarhus By whom built A. Aarhus Skibsverft Yard No. 93 When built 1941  
 By whom made A. B. Bumiche & Wain Engine No. 3060 When made 1941  
 By whom made A. B. Bumiche & Wain Boiler No. 1976-77 When made 1941  
 Horse Power 4250 Owners 6/5 of 1912 2/5 of Smedborg Port belonging to Copenhagen  
 Horse Power as per Rule 735 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
 for which vessel is intended carrying Petroleum in bulk, ocean going.

ENGINES, &c. Type of Engines Vertical Diesel engines <sup>cross head type</sup> Solid injection 2 or 4 stroke cycle 4 Single or double acting single  
 Mean pressure in cylinders 49 kg/cm<sup>2</sup> Diameter of cylinders 740 mm Length of stroke 1500 mm No. of cylinders 9 No. of cranks 9  
 Indicated Pressure 7 kg/cm<sup>2</sup> Flywheel 4000 kgm<sup>2</sup> Weight 24200 kgm<sup>2</sup> Means of ignition compression Kind of fuel used Heavy oil  
 of bearings, adjacent to the Crank, measured from inner edge to inner edge 1026 mm Is there a bearing between each crank yes  
 Revolutions per minute 115 Crank pin dia. 525 mm Crank Webs Mid. length breadth 1000 mm Thickness parallel to axis 320 mm  
 dia. of journals as per Rule 490 mm as fitted 525 mm Mid. length thickness 320 mm Thickness around eye-hole 282.5 mm  
 as per Rule 185 mm Intermediate Shafts, diameter as per Rule 349 mm Thrust Shaft, diameter at collars as per Rule 366 mm  
 as fitted 350 mm as fitted 400 mm  
 Shaft, diameter as per Rule 387 mm Is the screw shaft fitted with a continuous liner yes  
 as fitted 394 mm as fitted 19.4 mm Thickness between bushes as per Rule 14.6 mm Is the after end of the liner made watertight in the  
 as fitted 21 mm as fitted 16.5 mm

Is the liner in more than one length are the junctions made by fusion through the whole thickness of the liner yes  
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes  
 liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube  
 If so, state type no Length of Bearing in Stern Bush next to and supporting propeller 1990 mm  
 Pitch 33.25 mm No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 10.42 sq. m  
 of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when detached yes Means of lubrication  
 thickness of cylinder liners 53.5 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with  
 lagging material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine to funnel  
 Water Pumps, No. 1 off 170 h.p./min (Ballast) Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
 Pumps worked from the Main Engines, No. 1 Diameter 306 mm Stroke 306 mm Can one be overhauled while the other is at work  
 connected to the Main Bilge Line chain from main engine Steam Steam  
 cooling water led to the bilges overboard If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping  
 arrangements

Pumps, No. and size 1 off 150 h.p./min Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 off 170 h.p./min (main eng)  
 independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
 No. and size:—In Machinery Spaces 3 off 3 1/2" - 1 off 2" from coffee accu In Pump Room 1 off 3"  
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 off 6" - 2 off 4"  
 the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces  
 easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes  
 sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks valves  
 fixed sufficiently high on the ship's side to be seen without lifting the platform plates yes Are the Overboard Discharges above or below the deep water line above  
 each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes  
 pipes pass through the bunkers no How are they protected no  
 pipes pass through the deep tanks no Have they been tested as per Rule no

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes  
 arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one  
 compartment to another yes Is the Shaft Tunnel watertight no Is it fitted with a watertight door no worked from no  
 and vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork  
 AIR Compressors, No. 2 off 2.83 m<sup>3</sup> each No. of stages 1 Diameters Revel Type CSA7 Stroke no Driven by Steam engine  
 Auxiliary Air Compressors, No. no No. of stages no Diameters no Stroke no Driven by no  
 provision is made for first Charging the Air Receivers Steam driven compressors  
 Charging Air Pumps, No. no Diameter no Stroke no Driven by no  
 Auxiliary Engines crank shafts, diameter as per Rule 71.5 mm No. 1 off Diesel - 1 off Steam  
 as fitted 95 mm Position for the bilge room  
 Auxiliary Engines been constructed under special survey Yes Diesel one - yes Is a report sent herewith yes



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