

## REPORT ON OIL ENGINE MACHINERY.

No. 10365.

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 No. in Survey held at Copenhagen & Odense Date, First Survey 1/9 1936 Last Survey 5/10 19 37  
 Reg. Book. 38466 on the Single Triple Quadruple Screw vessel "HÖEGH RAY" Tons Gross 9357.37  
Net 5659.41  
 Built at Odense By whom built Odense Maskfabrik Yard No. 66 When built 1937  
 Engines made at Copenhagen By whom made Birmmister & Wain Engine No. 2657 When made 1937  
 Donkey Boilers made at Copenhagen By whom made Birmmister & Wain Boilers No. 1925 When made 1937  
 Brake Horse Power 3800 Owners Hitha, ARCADIA (Lip Høegh) Port belonging to Oslo  
 Nom. Horse Power as per Rule 572 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes  
 Trade for which vessel is intended ocean going oil carrier

OIL ENGINES, &c.—Type of Engines DIESEL, (CROSSHEAD TYPE, SUPERCHARGED) SOLID INJECTION 2 or 4 stroke cycle 4 Single or double acting single  
 Maximum pressure in cylinders 49 kg/cm<sup>2</sup> Diameter of cylinders 740 mm Length of stroke 1500 mm No. of cylinders 7 No. of cranks 7  
 Mean Indicated Pressure 8.51 kg/cm<sup>2</sup> Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 990 mm Is there a bearing between each crank yes  
 Revolutions per minute 110 TURN. 60° = 4000 KGM<sup>2</sup> Weight 21850 KGM<sup>2</sup> Means of ignition COMPRESSION Kind of fuel used DIESEL OIL  
 Crank Shaft, Solid forged dia. of journals as per Rule 501 mm Crank pin dia. 525 mm Crank Webs 135 mm CENT. HOLE Mid. length breadth 1000 mm Thickness parallel to axis 310 mm  
Semi built as fitted 525 mm (70 mm CENT. HOLE) Mid. length thickness 290 mm Thickness around eyehole 280 mm  
All built as fitted 525 mm Thrust Shaft, diameter at collars as per Rule 374 mm as fitted 496 mm  
 Flywheel Shaft, diameter as per Rule 356 mm as fitted 560 mm Intermediate Shafts, diameter as per Rule 392 mm as fitted 560 mm  
 Tube Shaft, diameter as per Rule 392 mm as fitted 560 mm Is the tube shaft fitted with a continuous liner yes  
 Screw Shaft, diameter as per Rule 392 mm as fitted 560 mm  
 Bronze Liners, thickness in way of bushes as per Rule 14.3 mm as fitted 28-29 mm Thickness between bushes as per Rule 14.3 mm as fitted 20 mm Is the after end of the liner made watertight in the propeller boss yes  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner one length  
 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  
 If two 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 shaft yes  
 Length of Bearing in Stern Bush next to and supporting propeller 1750 mm  
 Propeller, dia. 16'-10" Pitch 13'-7" No. of blades 4 Material BRONZE whether Moveable No Total Developed Surface 88 sq. feet  
 Method of reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced  
 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 non-conducting 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 1 OFF 2 CYL. DIFF. PUMP 140 TS/H  
 Cooling Water Pumps, No. DRIVEN BY THE MAIN ENGINE Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
 Bilge Pumps worked from the Main Engines, No. 1 Diameter 165 mm Stroke 230 mm Can one be overhauled while the other is at work yes  
 Pumps connected to the Main Bilge Line { No. and Size 1 OFF 165-230 mm SIMPLEX / 1 OFF 230-260-250 mm DUPL. / 1 OFF 150-150-150 mm DUPL.  
 How driven BY MAIN ENGINE / BY STEAM / BY STEAM  
 Is the cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements yes  
 Ballast Pumps, No. and size 1 OFF 230-260-250 mm DUPL. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 OFF 2 CYL. DIFF. PUMP 140 TS/H  
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 5 OFF 3"  
 In Holds, &c. FORE HOLD: 2 OFF 3" / OFF COFF: 1 OFF 6" / FORW. COFF: 1 OFF 4" / FORW. PUMP ROOM: 1 OFF 3"  
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 OFF 5" / 1 OFF 4"  
 Are all the Bilge Suction pipes in Holds and Turret Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes  
 Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks valves  
 Are they 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  
 Are they 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  
 What pipes pass through the bunkers yes How are they protected yes  
 What pipes pass through the deep tanks yes Have they been tested as per Rule yes  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes  
 Is the 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 of these compartments to another yes Is the Shaft Tunnel watertight no times Is it fitted with a watertight door yes worked from yes  
 If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork yes  
 Main Air Compressors, No. 2 No. of stages 2 Diameters 8 1/4"-3 1/2" Stroke 7" Driven by steam  
 Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 8 1/4"-3 1/2" Stroke 7" Driven by steam  
 Small Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 8 1/4"-3 1/2" Stroke 7" Driven by steam  
 What provision is made for first Charging the Air Receivers 2 donkey boilers and 2 air compressors, steam driven, f.m.e.  
 SUPERCHARGING BLOWER No. 1 Diameter ROTARY Stroke 178 mm Driven by main engine  
 Auxiliary Engines crank shafts, diameter as per Rule 356 mm as fitted 560 mm Position DRY  
 Have the Auxiliary Engines been constructed under special survey yes Is a report sent herewith yes







