

REPORT ON OIL ENGINE MACHINERY.

No. 6574.

TUE. MAY. 22 1923

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Port of Copenhagen

No. in Survey held at Copenhagen & Odense
Reg. Book.Date, First Survey 24th April 1922 Last Survey 4th April 1923.

Number of Visits 62.

80811 on the ^{Single} ~~Twin~~ ^{Triple} Screw vessels "Sally Marsk."Tons { Gross 3252.29
Net 1984.61.

Master Built at Odense. By whom built and A. P. Møller Yard No. 10 When built 1922-23.

Engines made at Copenhagen. By whom made Akt. Børnister & Wain's Maskin- & Skibbyggeri Engine No. 913. When made 1922-23.

Donkey Boilers made at Copenhagen. By whom made Akt. Børnister & Wain's Maskin- & Skibbyggeri Boiler No. When made 1922.

Brake Horse Power 1100. 1500 I.H.P. Owners Dampskibsselskabet af 1912 (A.P. Møller) Port belonging to Odense.

Nom. Horse Power as per Rule 330 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

OIL ENGINES, &c.—Type of Engines Vertical Diesel Oil Engine 2 or 4 stroke cycle 4 Single or double acting Single.

Maximum pressure in cylinders 35 kg./cm.² No. of cylinders 6 No. of cranks 6 Diameter of cylinders 630 mm = 24 13/16"

Length of stroke 1300 mm = 51 3/16" Revolutions per minute 85 Means of ignition Air compression Kind of fuel used Crude oil
(Flash point about 150° F.)

Is there a bearing between each crank yes. Span of bearings (Page 92, Section 2, par. 7 of Rules) 880 mm.

Distance between centres of main bearings 1250 mm. Is a flywheel fitted yes. Diameter of crank shaft journals 404 mm.

Diameter of crank pins 404 mm. Breadth of crank webs 538 mm. Thickness of ditto 226 mm.

Diameter of flywheel shaft 404 mm. Diameter of tunnel shafts 11 1/8" Diameter of thrust shaft 12 1/2"

Diameter of screw shaft 12 3/4" Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes.

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 joints burned The liner is in 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 ✓ If without liners, is the shaft arranged to run in oil ✓

Type of outer gland fitted to stern tube ✓ Length of stern bush 5'-2" Diameter of propeller 15'-0"

Pitch of propeller 11'-0" No. of blades 4. state whether moveable no. Total surface 70 square feet

Method of reversing Direct reversible. Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes. Thickness of cylinder liners 48 mm.

Are the cylinders fitted with safety valves yes. Means of lubrication Forced lubrication. Are the exhaust pipes and silencers water cooled or lagged with non-conducting material yes. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine The exhaust pipes are led up through a small funnel above the top of engine casing.

No. of cooling water pumps one Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes. No. of bilge pumps fitted to the main engines none Diameter of ditto ✓ Stroke ✓

Can one be overhauled while the other is at work ✓ No. of auxiliary pumps connected to the main bilge lines one off How driven by electro motors.

Sizes of pumps Diam. of plungers 6 1/2" Stroke 9" No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 1" & 2" strokes 2 off in each 3 1/2" diam. In after hold 2 off 3" & 2 off 2" diam. each. In engine room Rotary wing pumps Sizes of pumps capacity of each 75 tons

and in holds, etc. In F.P.T. & A.P.T. one in each 3" diam. with one off 3" diam. No. of ballast pumps 2 off How driven electro motor.

Is the ballast pump fitted with a direct suction from the engine room bilges yes. No. but 2 direct suction are fitted to the 4" diam. Is a separate auxiliary pump suction fitted in ✓

Engine Room and size yes, one off 4" diam. Are all the bilge suction pipes fitted with roses yes. Are the roses in Engine Room always accessible yes.

Are the sluices on Engine Room bulkheads always accessible none. Are all connections with the sea direct on the skin of the ship yes.

Are they valves or cocks Valves, except the Donkey Boiler blow off cock. Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates yes.

Are the discharge pipes 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 all pipes, cocks, valves and pumps in connection with the machinery accessible at all times yes. Are the bilge suction pipes, cocks and valves arranged so as to prevent any communication between the sea and the bilges yes. Is the screw shaft tunnel watertight yes. Is it fitted with a watertight door yes.

worked from upper deck height. If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork no woodwork.

No. of main air compressors one off No. of stages 3 Diameters LP = 600 mm, HP = 120 " Stroke 480 mm. Driven by the main engine.

No. of auxiliary air compressors 3 off No. of stages 2 Diameters LP = 225 mm, HP = 68 " Stroke 220 mm each. Driven by one of the auxiliary Diesel oil engines.

No. of small auxiliary air compressors one off No. of stages 2 Diameters LP = 80 mm, HP = 32 " Stroke 140 mm. Driven by Benjin motor.

No. of scavenging air pumps ✓ Diameter ✓ Stroke ✓ Driven by ✓

Diameter of auxiliary Diesel Engine crank shafts as per Rule 161.69 mm, as fitted 162.0 mm. Are the air compressors and their coolers made so as to be easy of access yes.

AIR RECEIVERS:—No. of high pressure air receivers 12 Internal diameter I = 450 mm, II = 400 mm, III = 190 " Cubic capacity of each I 400 Litres, II 200 " , III 225 "

material Simms Martin Steel Seamless, lap welded or riveted longitudinal joint Lap welded. Seamless. Range of tensile strength 23.2 to 26.0 Tons per sq. in.

thickness I = 25 mm, II = 21 " , III = 12 " working pressure by Rules 65 Atm. No. of starting air receivers One. Internal diameter 6'-1 15/16"

Total cubic capacity 650 cub. feet. Material Simms Martin Steel. Seamless, lap welded or riveted longitudinal joint Riveted.

Range of tensile strength 28-32 & 26-30 Tons thickness 15/16" + 1/32" 1" & 1 1/16" Working pressure 25 Atm. Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes. Can the internal surfaces of the receivers be examined yes. What means are provided for cleaning their inner surfaces The starting air receiver is fitted, man hole pipes are fitted from the donkey boiler to the high pressure air receiver. Is there a drain arrangement fitted at the lowest part of each receiver to enable them to be cleaned by means of caustic soda and steam.



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