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Rpt. 4b.

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REPORT ON OIL ENGINE MACHINERY.

No. 8577.

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No. in Survey held at Copenhagen Date, First Survey 3rd Septer 1930 Last Survey 10th July 1931

Reg. Book. 91756 on the Single Motor Triple Screw vessel "NOREG"

Tons Gross 7604.86 Net 4504.00

Built at Copenhagen By whom built Akt. Burmeister & Wain's Yard No. 586 When built 1930-31

Engines made at Copenhagen By whom made Akt. Burmeister & Wain's Engine No. 1901 When made 1930-31

Donkey Boilers made at Copenhagen By whom made Akt. Burmeister & Wain's Boiler No. 1851 When made 1931.

Brake Horse Power 3000. Owners Dampskibsselskabet "Corona" Port belonging to Gangesund

Nom. Horse Power as per Rule 625. Is Refrigerating Machinery fitted for cargo purposes no. Is Electric Light fitted Yes.

Trade for which vessel is intended Oversea trade. Carrying petroleum in bulk.

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

Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 590 mm = 23 1/4" Length of stroke 1000 mm = 43 1/8" No. of cylinders 2 x 6. No. of cranks 2 x 6.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 820 mm Is there a bearing between each crank Yes.

Revolutions per minute 145 Means of ignition Air compression Kind of fuel used Heavy oil flash point above 160°F

Crank Shaft, dia. of journals as per Rule 369 mm Crank pin dia. 372 mm Crank Webs Mid. length breadth 600 mm Thickness parallel to axis 250 mm

as fitted 372 mm Central hole dia 115 mm Mid. length thickness 230 mm Thickness around eyehole 164 mm

Flywheel Shaft, diameter as per Rule 9.86" Thrust Shaft, diameter at collars as per Rule 10.34"

as fitted 12" x 73 1/2" as fitted 13 1/2"

Tube Shaft, diameter as per Rule 10.85" Is the screw shaft fitted with a continuous liner Yes

as fitted 14 1/2"

Bronze Liners, thickness in way of bushes as per Rule 0.74" Thickness between bushes as per rule 0.55"

as fitted 13/16" & 7/8" as fitted 9/16" 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 Liners 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 Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft Yes If so, state type Length of Bearing in Stern Bush next to and supporting propeller 6'-2"

Propeller, dia. 11'-9" Pitch 9'-6" No. of blades 3 off Material Bronze whether Moveable no Total Developed Surface 33 sq. feet

Method of reversing Engines Direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when decelerated Yes Means of lubrication

oil lubrication Thickness of cylinder liners 43 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 Exhaust pipes led up inside the funnel.

Cooling Water Pumps, No. 2 off, Centrifugal, 150 tons each 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. each engine Diameter of trunk 160 mm Stroke 206 mm Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and Size 2 off bilge sanitary pumps 35 tons each; 2 off power bilge sanitary pumps 35 tons each; 1 off circulating pump 120 tons.

How driven by the main engines. by electric motor. steam driven.

Ballast Pumps, No. and size none Lubricating Oil Pumps, including Spare Pump, No. and size 2 off gear wheel pumps, 60 tons each.

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 3 off 3 1/2" dia. & 2 off 3" dia. In R.P.T. 1 off 3" dia. Suctions connected to the pump in the forward In Pump Room 1 off 3" dia.

In Holds, 2 off pump room; in fore peak 1 off 3" dia.; in fore hold 2 off 3" dia.; in forward cofferdam 1 off 3" dia.; in forward oil fuel dup tank 2 off 3" dia. In forward hold 2 off 3" dia. In forward hold 2 off 3" dia. In forward hold 2 off 3" dia.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 off 3" dia.

Are all the Bilge Suction pipes in Holds and Tunnel 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 except the donkey boiler blow off cocks.

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 none How are they protected Yes

What pipes pass through the deep tanks none 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

compartment to another Yes Is the Shaft Tunnel watertight no shaft tunnel 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 off No. of stages 3. Diameters 600-540-120 mm Stroke 410 mm Driven by the main engines.

Auxiliary Air Compressors, No. 2 off No. of stages 3. Diameters 320-280-70 mm Stroke 170 mm Driven by the auxiliary engines.

Small Auxiliary Air Compressors, No. 1 off No. of stages 2. Diameters 90-35 mm Stroke 120 mm Driven by hand. 1st stage

Scavenging Air Pumps, No. 1 off Diameter 161.8 mm Stroke 350 mm Driven by 2nd stage

Auxiliary Engines crank shafts, diameter as per Rule 161.8 mm Auxiliary engines 2 off 2 cyl 450 SR Diesel oil engines, 100 B.H.P. each, cyl. dia. 810 mm, Stroke 350 mm.

as fitted 172 mm each working at 660 R.M. compound and arranged in position One engine on each side of the machinery space.

AIR RECEIVERS:—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 and cleaned Yes Is a drain fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. 2 off cubic capacity of each 25 cu ft Internal diameter 36.5-33.1 kg/cm² thickness 3/8"-2 1/2" by Rules 36.5-33.1 kg/cm² Actual 65 kg/cm²

Seamless, lap welded or riveted longitudinal joint 36.5-33.1 kg/cm² Material S.M. Steel Range of tensile strength 27.8-29.1 kg/cm² Working pressure 25 kg/cm²

Starting Air Receivers, No. 1 off Total cubic capacity 900 cubic feet Internal diameter 6'-0" and 6'-1 1/8" thickness 1 1/8" by Rules 25 kg/cm²

Seamless, lap welded or riveted longitudinal joint 36.5-33.1 kg/cm² Material S.M. Steel Range of tensile strength 27.8-29.1 kg/cm² Working pressure 25 kg/cm²

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