

# REPORT ON OIL ENGINE MACHINERY.

No. 1529.

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Date of writing Report 22<sup>nd</sup> June 1927 When handed in at Local Office 22<sup>nd</sup> June 1927 Port of Nantes

No. in Survey held at Saint Nazaire Date, First Survey 10<sup>th</sup> Nov. 1925 Last Survey 7 June 1927

Reg. Book. 88.192 on the Twin { Single } Screw vessels BENJAMIN FRANKLIN Number of Visits 5

Tons { Gross 8513 Net 5339 }

Built at Penhoët St. Nazaire By whom built Ch. et Atel. de Saint Nazaire Yard No. T.5 When built 1927/6

Engines made at Penhoët St. Nazaire By whom made Ch. et Atel. de St. Nazaire Engine No. T.5 When made 1927

Donkey Boilers made at Penhoët St. Nazaire By whom made Ch. et Atel. de St. Nazaire Boiler No. 1224 When made 1926

Brake Horse Power 6000 Owners Ned. Olsen & Co Port belonging to Ostlo

Nom. Horse Power as per Rule 984 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

OIL ENGINES, &c. Type of Engines Burmeister and Wain 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 35 kg/cm<sup>2</sup> No. of cylinders 6 x 2 = 12 Diameter of cylinders 740 mm No. of cranks 6 x 2 = 12 Length of stroke 1.300

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 984 Is there a bearing between each crank Yes

Revolutions per minute Flywheel dia. 2.900 Weight 16.100 kg Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule 454 as fitted 460 Crank pin dia. 460 Crank Webs Mid. length breadth shrunk Thickness parallel to axis 290

Flywheel Shafts, diameter as per Rule 454 as fitted 460 Intermediate Shafts, diameter as per Rule 300 as fitted 300 Thrust Shaft, diameter at collar as per Rule 317 as fitted 318

Tube Shafts, diameter as per Rule 330 as fitted 344 Is the screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 17.7 as fitted 20 Thickness between bushes as per rule 13.3 as fitted 14.5 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 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 Not tightly

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 No Length of Bearing in Stern Bush next to and supporting propeller 1.395

Propellers, dia. 4.060 Pitch 3.460 No. of blades 4 Material brass whether Moveable No Total Developed Surface 5.26 (each) sq. feet m.

Method of reversing Engines Reversing gear Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes Means of lubrication

forced Thickness of cylinder liners 53.5 to 32 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

on-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

Cooling Water Pumps, No. Two Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps fitted to the Main Engines, No. 4 Diameter 160 Stroke 222 Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line { No. and Size 4 bilge pumps, 20 tons each, on main engines How driven 1 independent bilge pump, 20 tons electrically driven 1 ballast pump 150 tons electrically driven.

Ballast Pumps, No. and size one 150 tons Lubricating Oil Pumps, including Spare Pump, No. and size Two - 85 tons

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 Engine and Boiler Room on main drain, 2 @ 96" and 4 @ 57 1/2" off drains 1 @ 60" tunnel well.

Holds, &c. N°1: 2 at 86 N°2: 2 at 86 N°3: 2 at 75 N°4: 2 @ 75 N°5: 3 at 75

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Ballast pump, 1 @ 155. Indep. bilge pump, 1 @ 96. Sanitary pump, 2 @ 1 @ 96

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes On addition each of the 4 main engine bilge pumps, has a direct & independent suction to E.R. bilges, 96 dia

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes Are the Bilge Suctions in the Machinery Space

all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both

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

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

How are they protected Yes Have they been tested as per Rule Yes

all 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 Yes Is it fitted with a watertight door Yes worked from E.R. top platform.

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. Two No. of stages 3 Diameters 750, 675, 150 Stroke 420 Driven by Main Engines

Auxiliary Air Compressors, No. Three No. of stages 3 Diameters 318, 285, 78 Stroke 220 Driven by See Copenhagen Report, N° 7334

all Auxiliary Air Compressors, No. one No. of stages 2 Diameters 106, 34 Stroke 80 Driven by Main engine

enging Air Pumps, No. None Diameter Stroke Driven by —

Auxiliary Engines crank shafts, diameter as per Rule See Copenhagen Report N° 7334 attached huto. as fitted 162 mm

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes What means are provided for cleaning their inner surfaces Steam connection

the internal surfaces of the receivers be examined Yes Yes

214 Are a drain arrangement fitted at the lowest part of each receiver Yes

Pressure Air Receivers, No. 4 Cubic capacity of each 2 @ 250 litres 2 @ 500 " Internal diameter 400 mm 450 " thickness 16

less, lap welded or riveted longitudinal joint Homotom Material Steel Range of tensile strength 44/50 Working pressure by Rules 68 kg

ing Air Receivers, No. Two Total cubic capacity 48 m<sup>3</sup> Internal diameter 2.052 thickness 26

less, lap welded or riveted longitudinal joint wetted Material Steel Range of tensile strength 49/55 kg Working pressure by Rules 25.1 kg/cm<sup>2</sup>

214

Total No. of Visits 33



If so, is a report now forwarded? Yes.

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