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# REPORT ON OIL ENGINE MACHINERY.

No. 7727

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Port of

Copenhagen

Survey held at

Copenhagen

Date, First Survey 17<sup>th</sup> October 1927 Last Survey 13<sup>th</sup> May 1928

Book.

Number of Voids 72

075 on the <sup>Single</sup> ~~Twin~~ <sup>Motor</sup> ~~Triple~~ <sup>Screw</sup> ~~Quadruple~~ vessel "BRETAGNE."

Tons Gross 3176.67  
Net 1930.66

uilt at Copenhagen By whom built Akt. Burmeister & Wain's Maskin og Skibsbyggere Yard No. 355 When built 1927-28

Engines made at Copenhagen By whom made Akt. Burmeister & Wain's Maskin og Skibsbyggere Engine No. 1430 When made 1927-28

onkey Boilers made at Altona-Ottensener By whom made Ottensener Eisenwerke A/G Boiler No. 4380 When made 1928

also Horse Power 1200. Owners Det dansk-franske Dampskibsselskab (A. N. Petersen) Port belonging to Copenhagen

Horse Power as per Rule 267. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

for which vessel is intended No special trade.

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

Pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 550 mm = 21 5/8", Length of stroke 1500 mm = 59 1/16", No. of cylinders 6 No. of cranks 6

Bearings, adjacent to the Crank, measured from inner edge to inner edge 740 mm/m Is there a bearing between each crank yes

Revolutions per minute 95 Turning wheel dia. 1652 mm/m Weight 1100 kg Means of ignition Air compression Kind of fuel used Diesel oil flash point above 150°F

Shaft, dia. of journals as per Rule 374 mm/m as fitted 380 mm/m Crank pin dia. 380 mm/m Crank Webs Mid. length breadth 680 mm/m shrunk Thickness parallel to axis 220 mm/m

Intermediate Shafts, diameter as per Rule 10.7" as fitted 10.3/4" Thrust Shaft, diameter at collars as per Rule 11.235" as fitted 3.80 mm/m

Screw Shaft, diameter as per Rule 11.93" as fitted 12" Is the screw shaft fitted with a continuous liner yes

Liners, thickness in way of bushes as per Rule 0.664" as fitted 3/4" x 13/16" Thickness between bushes as per rule 0.563" as fitted 9/16" Is the after end of the liner made watertight in the

boss yes. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner in one length The liner is fitted

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 Is an approved Oil Gland or other appliance fitted at the after

the tube shaft Length of Bearing in Stern Bush next to and supporting propeller 5'-0"

ler, dia. 14'-3" Pitch 10'-6" No. of blades 4. Material Bronze whether Moveable no Total Developed Surface 63.0 sq. feet

l of reversing Engines Direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when disengaged yes Means of lubrication

lubrication Thickness of cylinder liners 38 mm/m Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

ducting 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

g Water Pumps, No. 2 off, Centrifugal, 80 tons each Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Pumps worked from the Main Engines, No. 2 off. Diameter of trunk 150 mm/m Stroke 175 mm/m Can one be overhauled while the other is at work yes

connected to the Main Bilge Line No. and size 1 off. ballast pump, 150 tons, - 2 off. bilge & sanitary pumps 26 tons each, - 2 off. engine bilge & sanitary pumps, 18 tons each

How driven by an electric motor, - by an electric motor, - by the main engine.

Pumps, No. and size 1 off. duplex piston pump, 150 tons. Lubricating Oil Pumps, including Spare Pump, No. and size 2 off. Cocks wheel pump, 30 tons each.

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 2 off. 3 1/2" dia., - 4 off. 3" dia. In tunnel well 1 off. 3" dia. In tanks fitted as per approved plan.

s, &c. In No. 1 & 2 holds, 2 off. in each 3" dia. - In No. 3 hold, 2 off. 3 1/2" dia. - In A.P.T. 1 off. 2 1/2" dia. In fore peak, 1 off. 2 1/2" dia. to the hand pump fitted in the fore peak.

ndent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 off. 3" dia., - 1 off. 7" dia.

the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces

in easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks Valves except the blow off cocks

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

pes pass through the bunkers no bunkers. How are they protected

pes pass through the deep tanks Have they been tested as per Rule

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

ment to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from the grating at the

nd vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork upper deck level.

Air Compressors, No. 1 off. No. of stages 3. Diameters 600 - 640 - 120 mm/m Stroke 440 mm/m Driven by the main engine

ry Air Compressors, No. 2 off. No. of stages 2. Diameters 318 - 285 - 72 mm/m Stroke 170 mm/m Driven by the auxiliary engines

Auxiliary Air Compressors, No. 1 off. No. of stages 2. Diameters 90 mm/m 35 mm/m Stroke 120 mm/m Driven by Hand.

ging Air Pumps, No. Diameter Stroke Driven by

ry Engines crank shafts, diameter as per Rule 161.2 mm/m as fitted 170.0 mm/m

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes The starting air receivers are fitted with man holes.

internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surface Rinsing arrangement made for cleaning the

Is a drain arrangement fitted at the lowest part of each receiver yes

Pressure Air Receivers, No. 1 off. I. 2 off. 3" dia. for main use. II. 1 off. 3" dia. for auxiliary use. III. 1 off. 3" dia. for lap welded. Cubic capacity of each III. 1.17 m<sup>3</sup> Material SM Steel Range of tensile strength III. 25.1-29.6 tons/m<sup>2</sup> Working pressure by Rules III. 9.3-9.5 kg/cm<sup>2</sup>

ess, lap welded or riveted longitudinal joint III. Seamless Material SM Steel Range of tensile strength III. 25.1-29.6 tons/m<sup>2</sup> Working pressure by Rules III. 9.3-9.5 kg/cm<sup>2</sup>

orting Air Receivers, No. one off. Total cubic capacity 36.5 Cub. feet Internal diameter 5' 11 1/16" x 6' 1" thickness Ends 13/16" Working pressure by Rules 25.6 kg/cm<sup>2</sup>

Seamless, lap welded or riveted longitudinal joint Double butt straps Material SM Steel Range of tensile strength Ends 45.0-49.5 kg/cm<sup>2</sup> Working pressure by Rules 25.6 kg/cm<sup>2</sup>





