

List of  
No. 7.

pt. 4b

# REPORT ON OIL ENGINE MACHINERY.

No. 7727

Received at London Office

14 JUN 1928

Date of writing Report 3<sup>rd</sup> June 1928 When handed in at Local Office 19 Port of Copenhagen

Location in Survey held at Copenhagen Date, First Survey 17<sup>th</sup> October 1927 Last Survey 13<sup>th</sup> May 1928  
Number of Visits 72

Capacity on the Single Motor Screw Vessel "BRETAGNE" Tons Gross 3176.67  
Triple Net 1930.66  
Quadruple

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

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

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

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

Horse Power as per Rule 267.1 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Service 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

Working pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 550 mm = 21 5/8", Length of stroke 500 mm = 19 1/4", No. of cylinders 6, No. of cranks 6

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

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

Shaft, dia. of journals as per Rule 374 mm Crank pin dia. 380 mm Crank Webs Mid. length breadth 680 mm Thickness parallel to axis 220 mm  
as fitted 380 mm Mid. length thickness 220 mm Thickness around eye-hole 184 mm

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

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

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

Is 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

Does 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

Are the 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 5'-0"

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

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

Lubrication Thickness of cylinder liners 38 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with  
insulating 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 pipe led up in funnel

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 Stroke 175 mm 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

in Holds, &c. 2 off. 2 1/2" dia., 2 off. in each 3" dia., - 2 off. 3" dia., - 2 off. 3 1/2" dia., - 1 off. 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.

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

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

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

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

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 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

Do pipes pass through the bunkers no bunkers. How are they protected yes

Do pipes pass through the deep tanks yes Have they been tested as per Rule yes

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

space to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from the gratings at the upper deck level.

On a passenger vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork yes

Air Compressors, No. 1 off. No. of stages 3 Diameters A. 600, B. 440, C. 120 mm Stroke 440 mm Driven by the main engine

Auxiliary Air Compressors, No. 2 off. No. of stages 2 Diameters 318, 285, 72 mm Stroke 220 mm Driven by the auxiliary engines

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

Operating Air Pumps, No. 1 off. Diameter 161.2 mm Stroke 170.0 mm Driven by hand.

Operating Engines crank shafts, diameter as per Rule 161.2 mm as fitted 170.0 mm

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.

Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces Eripping arrangement made for cleaning the high pressure air bottles by steam.

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

Pressure Air Receivers, No. 1 off. Cubic capacity of each 1.2 m<sup>3</sup> Internal diameter 11.75" thickness 3/8"

Material SM Steel Range of tensile strength 25.1-29.6 kg/mm<sup>2</sup> Working pressure by Rules 2.56 kg/cm<sup>2</sup>

Are they seamless, lap welded or riveted longitudinal joint Seamless Material SM Steel Range of tensile strength 45.0 kg/mm<sup>2</sup> Working pressure by Rules 2.56 kg/cm<sup>2</sup>

Operating Air Receivers, No. one off. Total cubic capacity 365 Cub feet Internal diameter 5'-11/16" thickness 1 3/16"

Material SM Steel Range of tensile strength 44.5-49.5 kg/mm<sup>2</sup> Working pressure by Rules 2.56 kg/cm<sup>2</sup>



