

REPORT ON MACHINERY.

No. 1219

Received at London Office Mon Oct 6 1913

of writing Report 29 Sept 1913 When handed in at Local Office 10 Port of Stockholm

in Survey held at Stockholm Date, First Survey 4th April Last Survey 24 Sept 1913
Book. "Levea Carle" (Number of Visits 13)

on the machinery of the vessel No. 586 Tons { Gross Net

Built at Rotterdam By whom built Messrs G. Broeders Root When built 1913

Lines made at Stockholm By whom made Messrs G. & J. Bolinders' bold when made 1913
(Messrs Bollocks Order No. 21972) when made

Engines made at By whom made Port belonging to

Horse Power as per Section 28 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

GINES, &c.—Description of Engines Bolinders' two stroke cycle reversible No. of Cylinders 2 No. of Cranks 2

Revs. per minute 275 Dia. of Screw shaft 142 as per rule 142 as fitted 150 Material of S.M. Steel

Length of Stroke 410 Length of stern bush 600

Is the after end of the liner made water tight 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 If two

are fitted, is the shaft lapped or protected between the liners Length of stern bush 600

Dia. of Crank shaft journals 140 as per rule 140 as fitted 145 Dia. of Crank pin 155 Size of Crank webs 220 x 84.5 Dia. of thrust shaft under

of Bilge pumps 1 Diameter of ditto 100 Stroke 100 Can one be overhauled while the other is at work

of Donkey Engines Bilge pumps connected to motor wrench. No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 2 In Holds, &c. Two or 2"

of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

of Stern Tube Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

MANUFACTURERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate

Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to

Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates

Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Percentage of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell

No. and Description of Furnaces in each boiler Material Outside diameter

Thickness of plates Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

Working pressure of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules End plates in steam space:

Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules Material of stays

How are stays secured Working pressure by rules Material of Front plates at bottom

Diameter at smallest part Area supported by each stay Working pressure of plate by rules

Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Working pressures by rules Girders to Chamber tops: Material Depth and

Length as per rule Distance apart Number and pitch of stays in each

Can the superheater be shut off and the boiler worked

Working pressure by rules Superheater or Steam chest; how connected to boiler Description of longitudinal joint Diam. of rivet

Material Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

Working pressure by rules

Working pressure

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building... During progress of work in shops... During erection on board vessel... Total No. of visits 13

Dates of Examination of principal parts—Cylinders 1/8, 18x22 Slides Covers 18x22 Pistons 18x22 Rods... Connecting rods 20x30, 28x4 Crank shaft 4, 20, 1, 22 Thrust shaft 20x22, 27, 1 Tunnel shafts 11, 24, 13 Screw shaft 21, 1, 24 Propeller 24

Material of Crank shaft S.M. Steel Identification Mark on Do. 1.8.13... Material of Thrust shaft S.M. Steel Identification Mark on Do. 1.8.13... Material of Screw shafts S.M. Steel Identification Marks on Do. 2.7.13

General Remarks (State quality of workmanship, opinions as to class, &c. The designs of the crank, thrust & propeller shafts and of the connecting rods of this type and size of Bolinder motor have been submitted and approved)

The crank shaft has been manufactured at the Sandviken Steel Works and the thrust shaft, propeller shaft and connecting rods at the Bjorneborg Steel Works, all in accordance with the Rules.

The cylinders of cast iron, have been examined and found sound. Thickness of cylinder walls stated to be 26 mm, and of water jackets 14 mm. Both cylinders tested with hydraulic pressure to 529 lbs per sq in.

The motor has been tried in shop under full power in my presence and found to give an effect at normal load and 275 revolutions of 120 BHP. The motor has also been tried with a continuous overload at 134 BHP and a temporary overload at 142 BHP.

The Society's Rules with regard to the details of construction, fitting of valves, lubrication accessibility etc. have been adhered to, so far as concerns the motor itself.

I am of opinion that this motor is of superior material and workmanship and, as it has been designed and constructed under my special survey, I have respectfully to submit that it will be eligible to be classed +LMC.

Surveyors The amount of Entry Fee ... £ : : When applied for, 25 Sept 1913... Special ... £ 8 : 0... Donkey Boiler Fee ... £ : :... Travelling Expenses (if any) £ : :... JUN. 23. 1914 FRI. JUL. 24. 1914

Committee's Minute Assigned no action

These papers... Signal Letters... Official No. 136... No., Date, and... Whether British or Foreign Built... Foreign... Number of D... Number of M... Rigger... Stern... Build... Galleries... Head... Framework... vessel... Number of B... Number of w... and their c... Total to quarter th... to bottom of... No. of sets of Engines... Descri... One Bol... No. of Shafts... Pa... Descri... Iron o... Loader... One... Under Tonna... Space or spa... Turret or Tr... Forecastle... Bridge space... Prop or Bre... Side Houses... Deck House... Chart House... Spaces for r... Section 78... 1894... Excess of H... Gr... Deduction... Re... NOTE 1.—The... Des... NOTE 2.—The... Name... No. of Own... Name, Res... The... busin... Man... Dated... (830). (69862) Assigned

