

REPORT ON MACHINERY

No. 1458

Received at London Office

OCT. 15. 1915

When handed in at Local Office 15th Oct. 1915 in Port of Stockholm
 Date, First Survey 31st July 1914 Last Survey 28th Sept. 1915
 (Number of Visits 15)

No. in Survey held at Stockholm on the S.S. "Lee Lee"
 Reg. Book. S.S. "Lee Lee"

Master _____ Built at _____ By whom built _____
 Engines made at Stockholm By whom made Messrs. J. & C. S. Lindbergs Co. Ltd. when made 1915
 (Messrs. Pollock & Co. No. 27648. Eng. No. 10646/47) when made _____

Boilers made at _____ By whom made _____
 Registered Horse Power 120 Owners _____ Port belonging to _____
 Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____

Nom. Horse Power as per Section 28 _____

ENGINES, &c.—Description of Engines Cylinder two stroke cycle, reversible with air injection. No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 380 mm Length of Stroke 410 mm Revs. per minute 275 Dia. of Screw shaft _____ as per rule _____ Material of screw shaft _____ as fitted _____

Is the screw shaft fitted with a continuous liner the whole length of the stern tube _____ Is the after end of the liner made water tight in the propeller boss _____ If the liner is in more than one length are the joints burned _____ 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 liners are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush _____

Dia. of Tunnel shaft _____ as per rule _____ Dia. of Crank shaft journals _____ as per rule _____ Dia. of Crank pin 155 mm Size of Crank webs 24.5 mm Dia. of thrust shaft under collars 132 mm Dia. of screw _____ Pitch of Screw _____ No. of Blades _____ State whether moveable _____ Total surface _____

No. of Feed pumps _____ Diameter of ditto 85 mm Stroke 20 mm Can one be overhauled while the other is at work _____
 No. of Bilge pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____

No. of Donkey Engines _____ Sizes of Pumps _____ No. and size of Suctions connected to both Bilge and Donkey pumps _____
 In Engine Room _____ In Holds, &c. _____

No. of Bilge Injections _____ Connected to condenser, or to circulating pump _____ Is a separate Donkey Suction fitted in Engine room & size _____
 Are all the bilge valves accessible _____ Are the roses in Engine room always accessible _____ Are the sluices on Engine room bulkheads always accessible _____

Are all connections on the skin of the ship _____ Are they Valves or Cocks _____
 Are they fitted on the side to be seen without lifting the stokehold plates _____ Are the Discharge Pipes above or below the deep water line _____

Are they always accessible on the plating of the vessel _____ Are the Blow Off Cocks fitted with a spigot and brass covering plate _____
 What protection _____ How are they protected _____

_____ in connection with the machinery and all boiler mountings accessible at all times _____
 Valves arranged so as to prevent any communication between the sea and the bilges _____

Dates of examination of compartments _____ fitting of Sea Connections _____ of Stern Tube _____ Screw shaft and Propeller _____
 Is the Screw Shaft Tunnel watertight _____ Is it fitted with a watertight door _____ worked from _____

BOILERS, &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 each boiler _____ 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 _____
 Thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____

long. seams _____ Diameter of rivet hole in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____
 Per centages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____

Size of compensating ring _____ No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter _____
 Length of plain part _____ 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 _____
 Pitch of stays & 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 _____
 Material _____ Thickness _____ Pitch 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 by rules _____ Material of Front plates at bottom _____
 Thickness _____ 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 _____
 Pitch across wide water spaces _____ Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and _____

thickness of girder at centre _____ Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____
 Working pressure by rules _____ Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked _____

separately _____ Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet _____
 holes _____ Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____

If stiffened with rings _____ Distance between rings _____ End plates: Thickness _____ How stayed _____
 Working pressure of end plates _____ Area of safety _____

6810-855200-055700



IS A DONKEY BOILER FITTED?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Dates of Survey while building
 During progress of work in shops - - - 3/7; 11/9; 2/11 1914. 3.11.14
 During erection on board vessel - - -
 Total No. of visits 15

Dates of Examination of principal parts—Cylinders 23, 26/9 1915

Connecting rods 23, 26/9 1915 Crank shaft 23, 26, 28/9 1915 Thrust shaft 23, 26, 28/9 1915

Stern tube _____ Steam pipes tested _____ Engine and boiler fittings _____

Completion of pumping arrangements _____ Boilers head _____

Main boiler safety valves adjusted 6.7/12, 26, 28/9 1915. Thick _____

Material of Crank shaft _____ Identification Mark on Do. _____

Material of Tunnel shafts _____ Identification Marks on Do. _____

Material of Steam Pipes solid drawn copper

Is an installation fitted for burning oil fuel _____

Have the requirements of Section 49 of the Rules been complied with? _____

Is this machinery duplicate of a previous case? _____

General Remarks (State quality of workmanship, opinions as to class, etc.)

Two of this type and size of boiler plates have been submitted for examination. These plates and connecting rods have been manufactured in accordance with the Rules. They have been inspected while being roughed and been tested by the undersigned and found to fit the cylinders. The cylinders of cast iron have been examined and found to be in good condition. Both cylinders tested with hydraulic pressure to 50 lbs. They have been marked on upper flange of each cylinder. The compressor cylinders (2 types) and their connecting rods and pistons jackets to 50 lbs and all found to be in good condition. The starting air receivers 2 in diameter, 10 ft long, 1/2 in thickness, 6 1/2 in. Plan submitted and approved (see certificate) and found good and the receivers been tested by me and found sound and tight. They have been stamped as follows. The inspection air receiver, of solid drawn boiler plate, is manufactured at the Avoca Steel Works from table furnished at the Avoca Steel Works. Length of receiver 33.5 in. approved (see Secretary's letter E 5-2-15). The motor receiver been tested by me with hydraulic pressure to 50 lbs and found tight. It has been stamped as follows.

Lloyd's Register
 Working No. 2619

The motor has been tried in shop under full load and 25 revolutions of the shaft. It has also been tested in accordance with the Society's Rules with regard to the details of the motor in ship, if a closed vessel. I am of opinion that this motor is of good construction and constructed under my special survey. I have and that a "special certificate" as referred to in the Rules.

The amount of Entry Fee ... £ : : When applied for
 Special in shops as per ... £ 6 : 0 : 0 21st Sept
 Donkey Boiler Fee ... £ : : When received
 Travelling Expenses (if any) £ : :

FRI. 9 MAR. 1915

Committee's Minute

Certificate (if required) to be sent to the Registrar and to the Registrar of the Registrar's Minute.

