

REPORT ON MACHINERY.

No. 20130

Received at London Office

TUE. 24 MAY. 1921

Date of writing Report 23rd May 1921 When handed in at Local Office 23 May 1921 Port of Newport, Mon.
 No. in Survey held at Newport, Mon. Date, First Survey Mar. 24 Last Survey May 20 1921
 Reg. Book. 9503 on the S/S "Hesperia" ex "Patria" (Number of Visits / 3.)
 Master Built at Glensburg By whom built Glensburg Schiffbau. Ges. When built 1919.
 Engines made at Glensburg By whom made Glensburg Schiffbau. Ges. when made 1919.
 Boilers made at DO By whom made DO when made 1919.
 Registered Horse Power 399 Owners H. P. Houston & Co. Port belonging to London.
 Nom. Horse Power as per Section 28 530 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.

ENGINES, &c.—Description of Engines Inverted Triple Expansion. No. of Cylinders 3 No. of Cranks 3
28 3/4 - 46 1/2 - 76 "IP. 46 1/2" Length of Stroke 48" Revs. per minute 80 Dia. of Screw shaft 15 5/8" as per rule 15 5/8" Material of screw shaft 5.
 Dia. of Cylinders 48 1/2" 74" 117 1/2" Dia. of Crank shaft journals 14 1/2" as per rule 14 1/2" Dia. of Crank pin 15 5/8" Size of Crank webs 17 1/2" x 9 1/2" Dia. of thrust shaft under
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liner. Cedar all round Is the after end of the liner made water tight
 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 5' 4 3/8"
 Dia. of Tunnel shaft 13 9/16" as per rule 13 9/16" Dia. of Crank shaft journals 14 1/2" as per rule 14 1/2" Dia. of Crank pin 15 5/8" Size of Crank webs 17 1/2" x 9 1/2" Dia. of thrust shaft under
 collars 14 1/2" Dia. of screw 18 1/2" Pitch of Screw 15 1/2" 3 in No. of Blades 4 State whether moveable Yes Total surface 77 sq. ft. 98
 No. of Feed pumps 2 Diameter of ditto 10 1/2" W & 17 1/2" Stroke 21" Can one be overhauled while the other is at work Yes.
 No. of Bilge pumps 2 Diameter of ditto 4 1/4" Stroke 27" Can one be overhauled while the other is at work Yes.
 No. of Donkey Engines 3 Sizes of Pumps Ballast 5.10" W 1/4" x 1 1/2" stroke No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4 See Npt. Letter 27.5.21 circulating 5' x 1 1/2" stroke Impeller 36" dia. In Holds, &c. N° 1 - 2, 4". N° 2 - 2, 4". N° 3 - 2, 4".
N° 4 - 2, 4" Aft. Pent 1 - 4".
 No. of Bilge Injections 1 sizes 9" Connected to condenser or to circulating pump Yes. Is a separate Donkey Suction fitted in Engine room & size 4"
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible ✓
 Are all connections with the sea direct on the skin of the ship Yes. Are they Valves or Cocks Both.
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line below
 Are 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
 What pipes are carried through the bunkers N° 1 & 2 Hold Bilges How are they protected Wood casing
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes.
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from E. R. top platform.

OILERS, &c.—(Letter for record 6) Manufacturers of Steel

Total Heating Surface of Boilers 7537 Is Forced Draft fitted Yes No. and Description of Boilers
 Working Pressure 1185 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 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
 Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
 long. seams Diameter of rivet holes 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 to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Area 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 Steam dome: description of joint to shell % of strength of joint
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— Two pairs brasshead liners & 4 bolts & nuts
One pair crank pin liners & 2 bolts & nuts, 2 main bearing bolts & nuts
12 Coupling bolts & nuts, 1 set of Piston rings for H.P. I.P. & L.P.
1 set of air, Fuel & Bilge Pump Valves, 1 slide Valve spindle.
1 air Pump rod. 35 Condenser tubes & 50 ferrules. A quantity of
assorted Bolts & Nuts & Span of various sizes.

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 ✓

Is the approved plan of main boiler forwarded herewith ✓

Is the approved plan of donkey boiler forwarded herewith ✓

Dates of Examination of principal parts—Cylinders 1.4.21 Slides 1.4.21 Covers 1.4.21 Pistons 1.4.21 Rods 1.4.21

Connecting rods 1.4.21 Crank shaft 14.4.21 Thrust shaft 14.4.21 Tunnel shafts 14.4.21 Screw shaft 30.3.21 Propeller 30.3.21

Stern tube 30.3.21 Steam pipes tested ✓ Engine and boiler seatings ✓ Engines holding down bolts 14.4.21

Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam 20.5.21

Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓

Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓

Material of Crank shaft S. Identification Mark on Do. ✓ Material of Thrust shaft S. Identification Mark on Do. ✓

Material of Tunnel shafts S. Identification Marks on Do. ✓ Material of Screw shafts S. Identification Marks on Do. ✓

Material of Steam Pipes ✓ Test pressure ✓

Is an installation fitted for burning oil fuel ✓ Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel

has been opened out, examined & found in good condition.

The materials appear sound & the workmanship good.

Some particulars taken from the machinery.

In our opinion the machinery of this vessel is eligible for use in Reg. Book of M.S. 5.21 & T.S. 5.21. when two new

Fuel Pumps have been fitted. (Owners Rep. states new

Fuel Pumps will be fitted at Liverpool to which port the vessel is proceeding direct).

The Boiler Survey is to be held at Liverpool & Surveyors at that port are being advised.

The amount of Entry Fee ... £ ?

Special ... £

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for,

When received,

Committee's Minute

Assigned

See minute on Lw 8 24 26

J. M. Gibson.

Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 29 SEP. 1922

TUE. 24 APR. 1923

FRI. 10 FEB. 1922

pt. 9.

Report

Date of writing

No. in Reg. Book. Sur

19513 on

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Registered

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o. of Donkey Boiler

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in Main Boilers

in Donkey Boiler

Last Report

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