

REPORT ON MACHINERY.

No. 10947

Date of writing Report 27th May 1921 When handed in at Local Office 7th June 1921 Port of Southampton
 No. in Survey held at Comes. Isle of Wight Date, First Survey 20th Sept. 1920 Last Survey 25th May 1921
 Reg. Book. on the S.S. "LORIENT" (Number of Visits 22)
 Master Not Appointed Built at Southampton By whom built Messrs. Dibles & Co. Ltd
 Engines made at Comes By whom made J.S. White & Co. Ltd when made 1921
 Boilers made at Comes By whom made J.S. White & Co. Ltd when made 1921
 Registered Horse Power 106 Owners Messrs. Morgan & Cadogan Port belonging to Cardiff
 Nom. Horse Power as per Section 28 106.6 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expnd Surface Condensing No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 14"-23"-39" Length of Stroke 27" Revs. per minute 110 Dia. of Screw shaft 8.7" Material of Steel
 as per rule 8.26" as fitted 8.75" screw shaft
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight
 in the propeller boss Yes If the liner is in more than one length are the joints burned No 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 No If two
 liners are fitted, is the shaft lapped or protected between the liners No Length of stern bush 2'-9 1/2"
 Dia. of Tunnel shaft 7.13" as per rule 7.48" Dia. of Crank shaft journals 7.49" as fitted 7.4" Dia. of Crank pin 7 3/4" Size of Crank webs 4 7/8" Dia. of thrust shaft under
 collars 7 3/4" Dia. of screw 10'-0" Pitch of Screw 10'-9" No. of Blades 4 State whether moveable No Total surface 33
 No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 14" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 1/2" Stroke 14" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 4 1/2" x 3" x 6" & 6" x 7" x 8" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2-2" and 2-2 1/2" In Holds, &c. 2-2" from Holdwell

No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump C. Pump Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/2"
 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 Yes
 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 Above
 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 Ford. Suctions How are they protected Fitted under ceiling
 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 None Is it fitted with a watertight door No worked from No

BOILERS, &c.—(Letter for record S) Manufacturers of Steel The Rankine Iron & Steel Co. Ltd & Thos. Pigott & Co. Ltd
 Total Heating Surface of Boilers 1930 Is Forced Draft fitted No No. and Description of Boilers Two Single ended
 Working Pressure 180 lb. Tested by hydraulic pressure to 360 lb. Date of test 21-2-21 No. of Certificate 345
 Can each boiler be worked separately Yes Area of fire grate in each boiler 29 No. and Description of Safety Valves to
 each boiler 2 Spring loaded Area of each valve 3.1416 Pressure to which they are adjusted 183 lbs. Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 7'-4" Mean dia. of boilers 10'-6" Length 10'-4 1/2" Material of shell plates Steel
 Thickness 29/32" Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R. LAP.
 long. seams T.R. BUTT STRAPS Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7 7/8" Lap of plates or width of butt straps 16 1/2"
 Per centages of strength of longitudinal joint 92.3 Working pressure of shell by rules 188.7 Size of manhole in shell 16" x 12"
 Size of compensating ring 2'-7 3/4" x 2'-3 3/4" No. and Description of Furnaces in each boiler 2 Plain Material Steel Outside diameter 3'-0 3/8"
 Length of plain part 6'-3 3/4" Thickness of plates 11/16" Description of longitudinal joint Welded No. of strengthening rings 1
 Working pressure of furnace by the rules 180 Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 45/64" Bottom 5/8"
 Pitch of stays to ditto: Sides 8 1/2" x 8 1/2" Back 8 1/2" x 8 1/4" Top 8 1/2" x 10 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 181.4
 Material of stays Steel Area at smallest part 1.79 Area supported by each stay 74.375 Working pressure by rules 216.6 End plates in steam space:
 Material Steel Thickness 1/8" Pitch of stays 1'-1 1/2" x 1'-10" How are stays secured DOUBLE NUTS Working pressure by rules 180 Material of stays Steel
 Area at smallest part 5.284 Area supported by each stay 297 Working pressure by rules 185 Material of Front plates at bottom Steel
 Thickness 1" Material of Lower back plate Steel Thickness 13/16" Greatest pitch of stays 13" x 8 1/2" Working pressure of plate by rules 189.1
 Diameter of tubes 3 3/4" Pitch of tubes 4 1/2" x 4 7/16" Material of tube plates Steel Thickness: Front 1" Back 13/16" Mean pitch of stays 9"
 Pitch across wide water spaces 14" Working pressures by rules 182.8 Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 9" x 1 3/8" Length as per rule 2'-4 7/16" Distance apart 10 1/2" Number and pitch of stays in each 2-8 1/2"
 Working pressure by rules 197 Steam dome: description of joint to shell No % of strength of joint No
 Diameter No Thickness of shell plates No Material No Description of longitudinal joint No Diam. of rivet holes No
 Pitch of rivets No Working pressure of shell by rules No Crown plates No Thickness No How stayed No

SUPERHEATER. Type No Date of Approval of Plan No Tested by Hydraulic Pressure to No
 Date of Test No Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler No
 Diameter of Safety Valve No Pressure to which each is adjusted No Is Easing Gear fitted No

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Comet Rod top-end bolts & nuts. 2 Comet Rod bottom-end bolts & nuts. 2 Main Bearing bolts & nuts. 1 Set of Coupling bolts & nuts. 1 Suction Valve & 1 Disch. Valve for Feed Pump. 1 Suction Valve & 1 Disch. Valve for Bilge Pump. 12 Gunth Ring Studs & nuts. 1 Escape Valve spring of each size. 2 Pump link brasses. 1 Set of Safety Valve springs. 2 Feed Check Valves. 1 Screw shaft complete with line and nut. 24 Boiler Tubes. 36 Condense Tubes and 18 Condense females. 50 Assorted bolts and nuts and Iron of Various sizes.

The foregoing is a correct description,

For J. SAMUEL WHITE & COMPANY, Ltd.

Managing Director.

Manufacturer.

Dates of Survey while building	During progress of work in shops --	During erection on board vessel --	Total No. of visits	22	Is the approved plan of main boiler forwarded herewith	yes
	18 7.12.26 2.11.25	3 4 5 1921			" " " donkey " " "	

Dates of Examination of principal parts—Cylinders 7-12-20 Slides 7-12-20 Covers 7-12-20 Pistons 11-3-21 Rods 22-11-20 Connecting rods 22-11-20 Crank shaft 21-10-20 Thrust shaft 21-10-20 Tunnel shafts 9-2-21 Screw shaft 6-1-21 Propeller 9-2-21 Stern tube 21-10-20 Steam pipes tested 12-4-21 Engine and boiler seatings 18-3-21 Engines holding down bolts 26-4-21 Completion of pumping arrangements 26-4-21 Boilers fixed 7-4-21 Engines tried under steam 11-5-21 Completion of fitting sea connections 9-2-21 Stern tube 9-2-21 Screw shaft and propeller 9-2-21 Main boiler safety valves adjusted 25-5-21 Thickness of adjusting washers Start Bhr:— $S = \frac{1}{2}$ " Part Bhr:— $S = \frac{13}{32}$ " Material of Crank shaft Steel Identification Mark on Do. 21-10-20 A.H.B. Material of Thrust shaft Steel Identification Mark on Do. 21-10-20 A.H.B. Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do. 349.S. LLOYDS 21-10-20 A.H.B. Material of Steam Pipes Copper Test pressure 360 lbs. $\frac{1}{2}$ "

Is an installation fitted for burning oil fuel

No

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

No

If so, state name of vessel

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

The Machinery and Boilers have been built under Special Survey and during erection on board.

The materials and workmanship are sound and good.

The spare gear is in order with the rule requirements.

On trial the machinery and boilers proved satisfactory and the same is eligible in my opinion to have notation + L.M.C. 5.21.

It is submitted that
this vessel is eligible for
THE RECORD + LMC 5.21. CL

20/6/21

H. H. Boyle

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3 : 0 :
Special ... £ 26 : 13 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 1 : 11 :
When applied for, 7th June 1921
When received, 30.7.21

Committee's Minute

TUE JUN. 21 1921

Assigned

+ L.M.C. 5.21

C.L.

CERTIFICATE WRITTEN



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Foundation