

REPORT ON MACHINERY.

No. 10896

Received at London Office

THU 13 JAN 1921

Date of writing Report 8 Jan 21 When handed in at Local Office 10 Jan 21 Port of Middlesbrough
 No. in Survey held at Middlesbrough Reg. Book 1044 on the SS. PENTEIFI
 Master J. Howe Built at Emden By whom built Hordewich Emden Delft
 Engines made at Yonning By whom made Eidewerk - A.G. when made 1908.
 Boilers made at By whom made when made 1908.
 Registered Horse Power 149 Owners Pentwyn S.S. Co. Ltd. Port belonging to London
 Nom. Horse Power as per Section 28 192 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion Vertical No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 18 3/4 31 5/8 30 5/8 Length of Stroke 2-11 1/2 Revs. per minute 100 Dia. of Screw shaft as per rule 10 1/2 Material of screw shaft as fitted 10 1/2
 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 — 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 Yes If two liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 5-1 1/2
 Dia. of Tunnel shaft as per rule 9 3/4 Dia. of Crank shaft journals as per rule 9 3/4 Dia. of Crank pin 10 Size of Crank webs 5 1/2 Dia. of thrust shaft under collars 10 Dia. of screw 13-0 Pitch of Screw 14-3 No. of Blades 4 State whether moveable no Total surface
 No. of Feed pumps 2 Diameter of ditto 2 3/4 Stroke Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 3/4 Stroke Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4-2 1/2 In Holds, &c. 2-2 1/2 in hold

No. of Bilge Injections 1 sizes 4 Connected to condenser, or to circulating pump Circumstances a separate Donkey Suction fitted in Engine room & size Yes
 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 no 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 bilge suction 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
 Dates of examination of completion of fitting of Sea Connections of Stern Tube Screw shaft and Propeller
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top platform

BOILERS, &c.—(Letter for record) Manufacturers of Steel
 Total Heating Surface of Boilers 3358 Is Forced Draft fitted no No. and Description of Boilers 2 Single ended
 Working Pressure 185 lbs. Tested by hydraulic pressure to Date of test No. of Certificate
 Can each boiler be worked separately Yes Area of fire grate in each boiler 54 No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 1256 Pressure to which they are adjusted 190 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers 12-11 1/2 Length 9-10 Material of shell plates
 Thickness 1-02 Range of tensile strength Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 2 R. laps
 long. seams 2 R. 11 R. Diameter of rivet holes in long. seams Pitch of rivets 14-96 Lap of plates or width of butt straps 9-84
 Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell 20 1/2 x 14
 Size of compensating ring 4 No. and Description of Furnaces in each boiler 3 - Horizontal Material Outside diameter 39-37
 Length of plain part top bottom Thickness of plates crown bottom 3-55 Description of longitudinal joint No. of strengthening rings
 Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides 59 Back 61 Top 59 Bottom 59
 Pitch of stays to ditto: Sides 4-08 Back 4-08 Top 4-08 If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Diameter at smallest part 1 1/2 Area supported by each stay Working pressure by rules End plates in steam space
 Material Thickness 98 x 98 Pitch of stays 3-58 x 4-56 How are stays secured nuts Working pressure by rules Material of stays
 Diameter at smallest part 3 Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Thickness 86 Material of Lower back plate Thickness 9 Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes 3-5 Pitch of tubes 4-52 x 4-52 Material of tube plates Thickness: Front 98 Back 90 Mean pitch of stays
 Pitch across wide water spaces 14-14 Working pressures by rules Girders to Chamber tops: Material Depth and thickness of girder at centre 4-48 x 1-4 Length as per rule 26-44 Distance apart 4-28 Number and pitch of stays in each 3 2 x 08
 Working pressure by rules Superheater or Steam chest; how connected to boiler None 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 Working pressure by rules End plates: Thickness How stayed
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

002883-002890-00064

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:-

Two top-end bolts. 2 bottom-end bolts 2 main bearing bolts, 1 set coupling bolts, 1 set of feed and ledge valves. Set of piston rings for each engine, quantity of assorted bolts and nuts and iron 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

" " " donkey " " "

Dates of Examination of principal parts - Cylinders Slides Covers Pistons Rods
Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller
Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts
Completion of pumping arrangements Boilers fixed Engines tried under steam
Main boiler safety valves adjusted Thickness of adjusting washers
Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.
Material of Steam Pipes Copper Test pressure 360 lbs.

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 is now in a safe working condition and eligible in my opinion to be classed with record of L.M.C. 12-20

The amount of Entry Fee £
Special £
Donkey Boiler Fee £
Travelling Expenses (if any) £

When applied for,

When received,

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned

FRI JAN 14 1921

L.M.C. 12-20

CERTIFICATE WRITTEN



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