

REPORT ON MACHINERY.

5369

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No. in Survey held at Bull Date, first Survey Nov^r 9th 82 Last Survey 17 August 1883
 Book. 1 Received at London Office Rec'd 20th AUGUST, 1883
 on the iron Steam Ship "Saint Thome" (Number of Visits 24) Tons 225.25
 Built at Bull By whom built Charles S. B. & Co. (Lm^d) When built 1883
 By whom made Charles B. when made 1883
 By whom made d. when made 1883
 Registered Horse Power 250 Owners Empresa Nacional Port belonging to Lisbon

MACHINES, &c.—

Description of Engines Vertical inverted compound Surface condensing
 Diameter of Cylinders 21 40 1/4" Length of Stroke 48 No. of Rev. per minute 58 Point of Cut off, High Pressure 29 Low Pressure 29
 Diameter of Screw shaft 13 3/8" Diam. of Tunnel shaft 12 1/2" Diam. of Crank shaft journals 13 3/4" Diam. of Crank pins 13 3/4" size of Crank webs 9 1/2" x 15 1/2"
 Diameter of screw 17 1/2" Pitch of screw 21 1/2" No. of blades 4 state whether moveable yes total surface 72.54 sq ft
 Feed pumps 2 diameter of ditto 4" Stroke 36" Can one be overhauled while the other is at work yes
 Bilge pumps 2 diameter of ditto 5" Stroke 36" Can one be overhauled while the other is at work yes
 do they pump from Main compartments & one from the sea with a deck delivery
 Donkey Engines 2 Size of Pumps Ballast 8" x 8" Stroke 5" x 8" Where do they pump from The ballast engine from the tanks
sea and the engine room bilges with delivery overboard through the condenser the feed donkey from the sea the
system (see compartments) that will with delivery to boiler on deck overboard deck tanks & water service
 the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible no
 bilge injections one and sizes 5 1/4" non return Are they connected to condenser, or to circulating pump to circulating pump
 are the pumps worked by rocking levers from piston rod crossheads
 connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both
 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 Said to be above
 each fitted with a discharge valve always accessible on the plating of the vessel yes Are the blow off Kingston cocks fitted with a spigot and brass covering plate yes
 pipes are carried through the bunkers the system of bilge pumps How are they protected wood case
 pipes, cocks, valves, and pumps in connection with the machinery accessible at all times yes in engine room
 pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges yes
 stern tube, propeller, screw shaft, and all connections examined in dry dock none new (sighted on launchways 21 June 83)
 screw shaft tunnel watertight reputed and fitted with a sluice door yes worked from upper platform

BOILERS, &c.—

No. of Boilers Two Description circular, multitubular Whether Steel or Iron Steel
 Pressure 80 lb Tested by hydraulic pressure to 160 lb Date of test 21st, 23rd & 26 June 83
 of superheating apparatus or steam chest none fitted
 boiler be worked separately yes Can the superheater be shut off and the boiler worked separately it
 are feet of fire grate surface in each boiler 73.24 sq ft Description of safety valves Spring loaded No. to each boiler Two
 each valve 19 1/2 lb Are they fitted with easing gear yes No. of safety valves to superheater x area of each valve it
 fitted with easing gear x Smallest distance between boilers and bunkers on woodwork 6 inches Diameter of boilers 13' 0"
 diameter of rivets 16' 6" description of riveting of shell long. seams double riv' butt circum. seams double riv' laps Thickness of shell plates 3/4"
 rivet holes 15/16" whether punched or drilled drilled pitch of rivets long 3 3/8" Lap of plating 9/2 Straps
 of strength of longitudinal joint 72 working pressure of shell by rules 86 lb size of manholes in shell 16' x 12'
 compensating rings 28" x 24" x 3/4" No. of Furnaces in each boiler 4
 diameter 45' length, top 6' 0" bottom 16' 0" thickness of plates 17/32 description of joint butted with double straps rings are fitted as at back
 distance between rings 6' 0" working pressure of furnace by the rules 93 lb combustion chamber plating, thickness, sides 1/2" back x top 1/2"
 to ditto, sides 8 1/2" to 9 1/2" back x top 8 1/2" If stays are fitted with nuts or riveted heads nuts working pressure of plating by
 of butt straps one of 17" with 2 nuts & washers Diameter of stays at smallest part 1 7/8" working pressure of ditto by rules 140 end plates in steam space, thickness 3/4"
 to ditto 15 1/2" x 15" 1 pair how stays are secured double nuts & washers working pressure by rules 80 lb & 84 lb diameter of stays at
 of stays 2" (steel) working pressure by rules 92 lb Front plates at bottom, thickness 7/8" Back plates, thickness it
 of stays x working pressure by rules x Diameter of tubes 3 1/2" pitch of tubes 4 7/8" thickness of tube
 back 1 1/16" how stayed stay tubes pitch of stays 13 1/2" in mid width of water spaces 1/8"
 of British and superheater or Steam chest length thickness of plates description of longitudinal joint diam. of rivet holes
 working pressure of shell by rules diameter of flue thickness of plates If stiffened with rings
 rings working pressure by rules end plates of superheater, or steam chest; thickness how stayed
 Superheater or steam chest; how connected to boiler none fitted

110396-0117

Lloyd's Register Foundation

DONKEY BOILER—

Description

Circular, multitubular with dry comb chamber + 2 internal furnaces

Made at

Bull

by whom made

Charles B.

when made

1883 where fixed on deck

Working pressure

45 lb

tested by hydraulic pressure to

90 lb

No. of Certificate

148

fire grate area

13 sq. ft

description of safety

valves

Spring loaded

No. of safety valves

one

area of each

7 sq. in.

if fitted with easing gear

if steam from main boilers can

enter the donkey boiler

no

diameter of donkey boiler

8' 0"

length

5' 7 1/2"

description of riveting

long altered lap

or single - 0"

Thickness of shell plates

7/16 in

diameter of rivet holes

13/16"

whether punched or drilled

long drilled

pitch of rivets

2 3/4"

lap of plating

4"

per centage of strength of joint

70

thickness of

end plates, in steam space

7/8"

stayed by

4 long stays

2 off. dia. with dble nuts

+ 2 with rivets

+ 2 with rivets

Diameter of furnace, top

42"

bottom

or

length of furnace

5' 4"

thickness of plates

3/8" steel

description of joint

butted with dble straps

Thickness of furnace crown plates

7/16" steel

stayed by

16 stay tubes

working pressure of shell by rules

54 lb

Working pressure of furnace by rules

54 lb

diameter of uptake

3 1/4"

thickness of plates

thickness of water tubes

Manhole in shell 15" x 11"

drilled 25 x 22 x 7/16"

SPARE GEAR. State the articles supplied:—

4 Propeller Blades, 1 propeller shaft, 1/2 Crank shaft, 1 slide rod

1 set Coupling bolts for one of Coupling, 2 main bearing bolts, 2 connecting rod bolts, 2 top end d.

4 safety valve springs, 1 set piston bolts, 1 set piston springs, 150 Condenser tubes + 1000 fenders

25 Boiler tubes, 1 set fire bars, 6 doz. assorted bolts, 1 set bilge pump valves, 1 air pump rod

1 dozen gauge glasses, 1 plate furnace assented.

The foregoing is a correct description,

Manufacturer.

RCS

H. Pearson

EARLE'S SHIPBUILDING & ENGINEERING COY LIMITED

General Remarks

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

The Boiler made to approved design and

tested, now with the engine placed in the ship in accordance with the requirements of the Society's rules are in my opinion in safe working condition, and the case is respectfully submitted as eligible for the notification in the register book. (The workmanship good)

8.83

It is submitted that this vessel is eligible to have the notification + 2 in 6.8.83 recorded.

20/8/83

The amount of Entry Fee

£ 2: " : "

received by me,

Special

£ 32: 10: "

Paid Nickella 22/8/83

Donkey Boiler Fee

£ 2: 2: "

Certificate (if required)

£

Gratis

18

To be sent as per margin.

(Travelling Expenses, if any, £)

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

Committee's Minute

TUESDAY 21 AUGUST 1883

+ J. Mac

