

REPORT ON MACHINERY.

Port of London

TUES. JUL 2 1901

Received at London Office

No. in Survey held at

Milwall

Reg. Book.

Date, first Survey

28 January

Last Survey

28 June

1901

458

on the

Donkey Boiler for the s/s "Horkham Castle"

(Number of Visits)

62

Master

Built at

By whom built

Tons

Gross

Net

When built

Engines made at

By whom made

when made

Boilers made at

By whom made

when made

Registered Horse Power

Owners Union. Castle Rail S.S. Co Port belonging to

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted

Is Electric Light fitted

ENGINES, &c.—Description of Engines

52817 div

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

Lgth. of stern bush

Dia. of Tunnel shaft

Dia. of Crank shaft journals

as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

collars

Dia. of screw

Pitch of screw

No. of blades

State whether moveable

Total surface

No. of Feed pumps

Diameter of ditto

Stroke

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

sizes

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the discharge pipes above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel

Are the blow off cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

Is the screw shaft tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—

(Letter for record (A))

Total Heating Surface of Boilers

Is forced draft fitted

No. and Description of Boilers

One. by. Mult. Single End

Working Pressure

Tested by hydraulic pressure to

Date of test

22.6.01

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of safety valves to

Each boiler

2 Spring

Area of each valve

7.07

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

15"

Mean dia. of boilers

Length

Thickness

19/32"

Range of tensile strength

27/32"

Are they welded or flanged

No

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

15/16"

Pitch of rivets

3 1/4"

Lap of plates

width of butt straps

6 3/8"

Per centages of strength of longitudinal joint

rivets

91.2%

Working pressure of shell by rules

82.5 lb

Size of manhole in shell

Size of compensating ring

4 1/2" x 1"

No. and Description of Furnaces in each boiler

2

plain

Material

Outside diameter

Length of plain part

top 8-2 1/2"

Thickness of plates

bottom 5-2 1/2"

Description of longitudinal joint

DBS single

No. of strengthening rings

Working pressure of furnace by the rules

122 lb

Combustion chamber plates: Material

Steel

Thickness: Sides

7/16"

Back 7/16"

Pitch of stays to ditto: Sides

8 1/2" x 7"

Back 8 1/2" x 7 1/4"

Top 7 1/2" x 7"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

Material of stays

Iron

Diameter at smallest part

.99

Area supported by each stay

65.87

Working pressure by rules

Material

Steel

Thickness

1 1/16"

Pitch of stays

15" x 15"

How are stays secured

at smallest part

2.79

Area supported by each stay

225

Working pressure by rules

93 lb

Material of Front plates at bottom

Thickness

7/8"

Material of Lower back plate

Steel

Thickness

9/8"

Greatest pitch of stays

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

Steel

Thickness: Front

Pitch across wide water spaces

15 1/2"

Working pressures by rules

110.7 F 30 lb

Girders to Chamber tops: Material

Iron

Depth and

thickness of girder at centre

5.2 plates 1/2"

Length as per rule

18 7/16"

Distance apart

7 1/2"

Number and pitch of Stays in each

Working pressure by rules

96.5 lb

Superheater or Steam chest; how connected to boiler

riv

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

30"

Thickness of shell plates

3/8"

Material

Steel

Description of longitudinal joint

Diam. of rivet

3 1/2"

Pitch of rivets

2"

Working pressure of shell by rules

170 lb

Diameter of flue

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

1/2"

How stayed

2 Iron stays 1 1/2" dia

Working pressure of end plates

150 lb

Area of safety valves to superheater

Are they fitted with easing gear

DONKEY BOILER— No. Description
Made at By whom made When made Where fixed
Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves
No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers
enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of ten-
strength Descrip. of riveting long-seams Dia. of rivet holes Whether punched or drilled Pitch of rivets
Lap of plating Per centage of strength of joint Rivets Thickness of shell crown plates Radius of do. No. of Stays to do.
Dia. of stays. Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Descrip.
joint Thickness of furnace crown plates Stayed by Working pressure of shell by rules
Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
Manufacturer.

Saml Stodge Thos Lla
Castroge MANAGING DIRECTOR

Dates { During progress of
work in shops - -
of Survey { During erection on
while board vessel - -
building { Total No. of visits

Is the approved plan of main boiler forwarded herewith ☒

" " " donkey " " " ☒

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

Material of screw shaft ☒ 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
non-corrosive ☒ If two liners are fitted, is the shaft lapped or protected between the liners ☒

The above Donkey Boiler has been constructed under spe-
survey, the material has been tested in accordance
with the Society's Rules & the workmanship is
it has been tested by hydraulic pressure to 160
pounds per inch & found tight & is stamped as follows

NO 453
Lloyd's
160 lb
22.6.0

The above will be fitted in two or three months.

The amount of Entry Fee. £ : : When applied for,
Special £ : : 2/4 901
Donkey Boiler Fee . . . £ 2 : 2 : When received,
Travelling Expenses (if any) £ : : 4/7 201
Last 4/9

Committee's Minute

Assigned

Thomas R. Blac
Engineer Surveyor to Lloyd's Register of British & Foreign S



Lloyd's Register
Foundation