

REPORT ON MACHINERY.

Port of *London.*

Received at London Office

FRI. JAN 31 1902

No. in Survey held at *London.*
Reg. Book.

Date, first Survey

25 Oct 1901

Last Survey

Jan 22nd 1902.

(Number of Visits)

*543, on the New Boiler for the Iron S.S. "Blonde" (not classed)*Tons { Gross *612*
Net *363.*When built *1863.*Master *Linker.*

Built at

London.

By whom built

C. Langley.

Engines made at

London.

By whom made

C. Langley.

when made

Boilers made at

Blackwall.

By whom made

J. Stewart & Sons Ltd.

when made

1902.

Registered Horse Power

Owners

(H. Rodenacker Ingr)

Port belonging to

Danzig.

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted

Is Electric Light fitted

ENGINES, &c.—Description of Engines

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule

Lgth. of stern bush

Dia. of Tunnel shaft

as per rule

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 *S.*)

Total Heating Surface of Boilers

1450 Sq ft

Is forced draft fitted

No. and Description of Boilers

One Cylindrical Return Tube

Working Pressure

*100 lb.*Tested by hydraulic pressure to *200 lb.*

Date of test

22.1.02

Can each boiler be worked separately

Area of fire grate in each boiler

54 Sq ft

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

13' 0"

Length

9' 6"

Material of shell plates

Steel.

Thickness

11/16"

Range of tensile strength

27-32

Are they welded or flanged

No.

Descrip. of riveting: cir. seams

Double

long. seams

Double & Butts.

Diameter of rivet holes in long. seams

13/16"

Pitch of rivets

6 1/2"

Lap of plates or width of butt straps

12 1/2"

Per centages of strength of longitudinal joint

rivets

85%

plate

87%

Working pressure of shell by rules

102 lb.

Size of manhole in shell

16" x 12"

Size of compensating ring

7" x 11/16"

No. and Description of Furnaces in each boiler

3 Plain

Material

Steel

Outside diameter

3' 2 1/8"

Length of plain part

top

6' 4"

Thickness of plates

crown

9/16"

bottom

9/16"

Description of longitudinal joint

Butted Butts

No. of strengthening rings

0

Working pressure of furnace by the rules

105 lb.

Combustion chamber plates: Material

Steel

Thickness: Sides

1/2"

Back

1/2"

Top

9/16"

Bottom

9/16"

Pitch of stays to ditto: Sides

8 3/4" x 8 1/2"

Back

9" x 8 1/4"

Top

8 1/4" x 8 1/4"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

104 lb.

Material of stays

Steel

Area at smallest part

1.22

Area supported by each stay

72 sq"

Working pressure by rules

125 lb.

End plates in steam space:

Steel

Material

Steel

Thickness

13/16"

Pitch of stays

18" x 16"

How are stays secured

D. Nuts

Working pressure by rules

108 lb.

Material of stays

Steel

Material of Front plates at bottom

Steel

Thickness

3/4"

Material of Lower back plate

Steel

Thickness

3/4"

Material of Lower back plate

Steel

Thickness

5/8"

Greatest pitch of stays

9"

Working pressure of plate by rules

108 lb.

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2"

Pitch across wide water spaces

13 1/4"

Working pressures by rules

105 lb.

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

6 1/2" x 1 1/4"

Length as per rule

2' 3"

Distance apart

8 3/4"

Number and pitch of Stays in each

Working pressure by rules

109 lb.

Superheater or Steam chest; how connected to boiler

Butted

Can the superheater be shut off and the boiler worked

separately

No.

Diameter

3' 0"

Length

4' 6"

Thickness of shell plates

3/8"

Material

Pitch of rivets

3.

Working pressure of shell by rules

125 lb.

Diameter of flue

3"

Material of flue plates

Steel

Thickness

3/4"

If stiffened with rings

Yes

Distance between rings

Yes

Working pressure of end plates

Yes

Area of safety valves to superheater

Yes

Are they fitted with easing gear

Yes

End plates: Thickness

Yes

How stayed

Yes

Working pressure of end plates

Yes

Area of safety valves to superheater

Yes

Are they fitted with easing gear

Yes

End plates: Thickness

Yes

How stayed

Yes

Working pressure of end plates

Yes

Area of safety valves to superheater

Yes

Are they fitted with easing gear

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End plates: Thickness

Yes

How stayed

Yes

Working pressure of end plates

Yes

Area of safety valves to superheater

Yes

Are they fitted with easing gear

Yes

End plates: Thickness

Yes

How stayed

Yes

Working pressure of end plates

Yes

Area of safety valves to superheater

Yes

Are they fitted with easing gear

Yes

End plates: Thickness

Yes

How stayed

Yes

Working pressure of end plates

Yes

Area of safety valves to superheater

Yes

Are they fitted with easing gear

Yes

End plates: Thickness

Yes

How stayed

Yes

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 can enter the donkey boiler _____

Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile 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 _____ Description of 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.

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

Is the approved plan of main boiler forwarded herewith *Yes*.
" " " 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 and non-corrosive _____

If two liners are fitted, is the shaft lapped or protected between the liners _____

*This Boiler has been built under Special Survey and is accordance with the approved plan.
On completion the boiler was tested by hydraulic pressure & 200 lb per sq inch with satisfactory results.
It is now being fitted on board the unclassified Steamer "Blonde"*

The boiler is stamped

N^o 478
LLOYD'S TEST.
200 LBS.
22.1.02. E.M.S.

Submitted that as this boiler has been fitted on board an unclassified vessel further action is unnecessary.

P.H.D.
31/1/02
R.S.
31.1.02

The amount of Entry Fee. . . £ : : When applied for, 31/1/02
Special . . . £ 4 4 0
Donkey Boiler Fee . . . £ : :
Travelling Expenses (if any) . £ : : When received, 1/4/02

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

Committee's Minute

Assigned

Not for Comm.
(Unclassified Vessel)



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Foundation