

REPORT ON MACHINERY.

Port of London.

Received at London Office **FRI. JAN 31 1902**

No. in Survey held at London. Date, first Survey 25 Oct 1901 Last Survey Jan 22nd 1902.
 Reg. Book. 543 on the New Boiler for the Iron S.S. "Blonde" (not classed) (Number of Visits 2)
 Master L. Baker Built at London. By whom built C. Langley. Tons Gross 612
 Engines made at London. By whom made C. Langley. when made 1863.
 Boilers made at Blackwall. By whom made J. Stewart & Sons Ltd. when made 1902.
 Registered Horse Power (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

Dia. of Cylinders		Length of Stroke		Revs. per minute	Dia. of Screw shaft		No. of Cranks	
as per rule	as fitted	as per rule	as fitted		as per rule	as fitted		Lgth. of stern bush
Dia. of Tunnel shaft		Dia. of Crank shaft journals		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 Sqft 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 Sqft 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 1 1/16" 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% Working pressure of shell by rules 102 lb. Size of manhole in shell 16" x 12"
 plate 87%
 Size of compensating ring 7" x 1 1/16" 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" Description of longitudinal joint Butted Butts. No. of strengthening rings 0
 bottom 6' 3" bottom 9/16"
 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 3/4" 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:
 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.
 Area at smallest part 3.25 Area supported by each stay 288 sq" Working pressure by rules 112 lb. Material of Front plates at bottom 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" Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 9"
 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 Two 8 3/4"
 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 Steel Description of longitudinal joint D. Nuts. Diam. of rivets 13/16" Pitch of rivets 3. Working pressure of shell by rules 125 lb. 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 —

whether, and where, one will be sent on the Hull of the ship?



LOW 755A-0205

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 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*

Certificate (if required) to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee. . . £ : : } When applied for,
Special £ 4 4 0 } 31/1 19 02
Donkey Boiler Fee £ : : }
Travelling Expenses (if any) . £ : : } When received,
1/4/ 19 02 P.H.D.
4.

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

Committee's Minute

Assigned

*Not for Committee
(Unclassified Vessel)*



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