

## REPORT ON MACHINERY.

Port of

Belfast

Received at London Office

10-5 29 MAR 1904

Survey held at

London Dock

Date, first Survey

Oct 20<sup>th</sup> 03

Last Survey

Nov 24 03

ok.

on the

P.S. No 56 (vessel not yet named)

(Number of Visits)

3

Gross

Built at

London Dock

By whom built

London Dock S. &amp; C. Co.

When built

1903-4

made at

Irvine

By whom made

Renfrew &amp; Co.

when made

made at

By whom made

when made

rated Horse Power

Owners

Not ascertained

Port belonging to

Horse Power as per Section 28

Is Electric Light fitted

NES, &amp;c.—Description of Engines

No. of Cylinders

No. of Cranks

eter of Cylinders

Length of Stroke

Revolutions per minute

Diameter of Screw shaft

as per rule

eter of Tunnel shaft

as per rule

Diameter of Crank shaft journals

Diameter of Crank pin

Size of Crank webs

as fitted

eter of screw

Pitch of screw

No. of blades

4

\*State whether moveable

No

Total surface

Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Donkey Engines

Sizes of Pumps

No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room

In Holds, &amp;c.

Bilge injections / sizes

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room &amp; size

All the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices in Engine room bulkheads always accessible

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

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

Yes

Are the pipes 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

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

Before launching

Tunnel watertight

None

Is fitted with a watertight door

worked from

LERS, &amp;c.—

(Letter for record)

Total Heating Surface of Boilers

Is forced draft fitted

and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

e of test

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of safety valves to

boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted

easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean diameter of boilers

length

Material of shell plates

Thickness

Description of riveting: circum. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Percentages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

e of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of Stays in each

Working pressure by rules

Superheater or Steam chest; how connected to boiler

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

oles

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



# **DONKEY BOILER—** 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 boiler \_\_\_\_\_  
 enter the donkey boiler \_\_\_\_\_ Diameter of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_  
 Description of riveting long seams \_\_\_\_\_ Diameter 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 \_\_\_\_\_ Stayed by \_\_\_\_\_  
 joint \_\_\_\_\_ Thickness of furnace crown plates \_\_\_\_\_ 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 of Survey while building  
 During progress of work in shops - -  
 During erection on board vessel - -  
 Total No. of visits

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

**ENGINES**—Length of stern bush \_\_\_\_\_ Diameter of crank shaft journals \_\_\_\_\_ as per rule \_\_\_\_\_ as fitted \_\_\_\_\_ Diameter of thrust shaft under collars \_\_\_\_\_  
**BOILERS**—Range of tensile strength \_\_\_\_\_ Are they welded or flanged \_\_\_\_\_ **DONKEY BOILERS** No. \_\_\_\_\_ Range of tensile strength \_\_\_\_\_  
 Is the approved plan of main boiler forwarded herewith \_\_\_\_\_ Is the approved plan of donkey boiler forwarded herewith \_\_\_\_\_

The sea-cocks, discharge valves, and steam tubes have been fitted in a satisfactory manner, and in accordance with the Rules.  
 The vessel is to be towed to Inverness or Glasgow in a few days to have the engines & boilers fitted.  
 Long information is forwarded for the guidance of the Glasgow Surveyors.

Certificate (if required) to be sent to \_\_\_\_\_

The amount of Entry Fee. . . £ : :  
 Special . . . . . £ : :  
 Donkey Boiler Fee . . . . . £ : :  
 Travelling Expenses (if any) £ 3 0 0  
 Committee's Minute \_\_\_\_\_  
 Assigned \_\_\_\_\_

*R. J. Bennett*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

THUR. 31 MAR 1904 © 2021

MACHINERY CERTIFICATE  
 WRITTEN, H-4 of 3-3-04

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