

REPORT ON MACHINERY.

No.

74896

Received at London Office

WED. DEC 18 1912

Date of writing Report

19

When handed in at Local Office

10

Port of

London

No. in Survey held at
Reg. Book.

Newbury

Date, First Survey

24th May

Last Survey

13th Aug 1912

(Number of Visits)

Tons

Gross 191
Net 68.81

When built

1912

Master

Built at

Bristol

By whom built

C. Hill & Sons

Engines made at

Newbury

By whom made

Plumley & Son Ltd

when made

1912

Boilers made at

Clasgow

By whom made

J. Neilson & Sons

when made

1912

Registered Horse Power

Owners

W. A. Osborn

Port belonging to

Bristol

Nom. Horse Power as per Section 28

44

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Compound Surface Condensing

No. of Cylinders

2

No. of Cranks

2

Dia. of Cylinders

14" — 28"

Length of Stroke

18"

Revs. per minute

140

Dia. of Screw shaft

as per rule 6.179
as fitted 6 7/16"

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

No liners

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

✓

Length of stern bush

2-6 1/8"

Dia. of Tunnel shaft

as per rule 3.5"

Dia. of Crank shaft journals

as per rule 3.28"

Dia. of Crank pin

6"

Size of Crank webs

7 1/2" x 3 1/4"

Dia. of thrust shaft under

collars

6"

Dia. of screw

6-3"

Pitch of Screw

8'-0"

No. of Blades

4

State whether moveable

No

Total surface

17.6 sq ft

No. of Feed pumps

One

Diameter of ditto

2 1/4"

Stroke

9"

Can one be overhauled while the other is at work

✓

No. of Bilge pumps

One

Diameter of ditto

2 1/4"

Stroke

9"

Can one be overhauled while the other is at work

✓

No. of Donkey Engines

One

Sizes of Pumps

6 x 4 x 6 Duplex

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

In Engine Room

Two of 2" & separate 2" Donkey Suction

In Holds, &c.

Four Hold one 2" diam. After Hold two of 2 1/2"

No. of Bilge Injections

No sizes

4" Connected to condenser or circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

Yes 2"

Are all the bilge suction pipes fitted with roses

Yes

Are the roses in Engine room always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

✓

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

Yes

Are they Valves or Cocks

Valves & cocks

Are they 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

above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Yes

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Yes

What pipes are carried through the bunkers

None

How are they protected

✓

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Yes

Dates of examination of completion of fitting of Sea Connections

11-10-11

of Stern Tube

8-10-12

Screw shaft and Propeller

11-10-12

Is the Screw Shaft Tunnel watertight

✓

Is it fitted with a watertight door

—

worked from

—

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

926 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers

One

Working Pressure

130 lbs

Tested by hydraulic pressure to

260 lbs

Date of test

1-8-12

No. of Certificate

11706

Can each boiler be worked separately

✓

Area of fire grate in each boiler

31 sq ft

No. and Description of Safety Valves to

each boiler

Two Spring loaded

Area of each valve

4.91

Pressure to which they are adjusted

135 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

20"

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

plate

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

bottom

Thickness of plates

crown

bottom

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

holes

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

002385-002400-0076

VERTICAL DONKEY BOILER— Manufacturers of Steel.

No.	Description				
Made at	By whom made	When made	Where fixed		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
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 Plates
Working pressure of shell by rules	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	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— 2 Top end, 2 bottom end, 2 main bearing bolts & nuts, 1 set coupling bolts, 1 set valves helix & feed pumps, bolts & nuts & iron assorted

The foregoing is a correct description, **PLENTY & CO. LIMITED.**

Manufacturer.

E. J. Davies

SECRETARY.

Dates of Survey while building	During progress of work in shops --	1912 - May 21, June 13, July 15, 26, Aug. 13
	During erection on board vessel --	Sept 24 th , 30 th , Oct 1 st , 11 th , 14 th , 18 th , 24 th , 31 st , Nov. 14 th , 25 th , Dec 2 nd , 13 th
	Total No. of visits	6

Is the approved plan of main boiler forwarded herewith ☒

Dates of Examination of principal parts—		Cylinders 15.7.12	Slides 15.7.12	Covers 15.7.12	Pistons 15.7.12	Rods 15.7.12
Connecting rods 15.7.12	Crank shaft 24.5.12	Thrust shaft 13.6.12	Tunnel shafts	✓	Screw shaft 24.5.12	Propeller 13.8.12
Stern tube 13.8.12	Steam pipes tested 28.11.12	Engine and boiler seatings 31.10.12	Engines holding down bolts 31.10.12			
Completion of pumping arrangements 2.12.12	Boilers fixed 31.10.12	Engines tried under steam 2.12.12				
Main boiler safety valves adjusted 2.12.12	Thickness of adjusting washers P 9/8 S 3/8					
Material of Crank shaft Steel	Identification Mark on Do. 24.5.12 TR	Material of Thrust shaft Steel	Identification Mark on Do. 13.6.12 TR			
Material of Tunnel shafts ✓	Identification Marks on Do. ✓	Material of Screw shafts Steel	Identification Marks on Do. No 741 TR			
Material of Steam Pipes Copper	Test pressure 260 lbs					

General Remarks (State quality of workmanship, opinions as to class, &c.) These Engines constructed under special survey, the material tested as required by the rules & the workmanship good. The above are being forwarded to Bristol & be fitted on board.

These Engines have now been fitted in 5/8 Ferric. The Boilers marked 11706
LLOYD'S
260 lbs
1.8.12 H.B.F. has also been fitted

The Main Steam pipes has been tested by Hydraulic pressure to 260 lbs. The Engines have been tried under steam & the Safety Valves adjusted.

In my opinion this vessel's machinery is eligible for record F.L.M. 12-12 Machinery Aft. It is submitted that this vessel is eligible for THE RECORD. + LMC 12.12

The amount of Entry Fee	£ 1 : 0 : 0	When applied for,
2/372 Special	£ 2 : 13 : 42	20.8.12
Donkey Boiler Fee	£ 2 : 13 : 42	
Travelling Expenses (if any)	£ 1 : 11 : 0	When received, (Bristol) 19.12.12

Committee's Minute

FRI. DEC 20. 1912

Assigned

Thomas R. Blackie

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



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