

Rpt. 4.

REPORT ON MACHINERY.

No. 62034

WED. APR. 3-1912

Date of writing Report

March 27th 1912

When handed in at Local Office

April 1st 1912

Port of

Newcastle-on-Tyne

No. in Survey held at
Reg. Book.

North Shields

Date, First Survey

10 Oct. 1911

Last Survey

15 Mar. 1912

Supp. on the

Machinery for the s/s Teesborough

(Number of Visits)

Gross 340

Master

Built at

Gool

By whom built

Gool S.B. & Reps C^o L^{td}

Tons

Net

When built 1912-3.

Engines made at

North Shields

By whom made

Shields Engineering & D. H. C^o L^{td}

when made 1912-3.

Boilers made at

South Shields

By whom made

T. W. Bringham & C^o

when made 1912-3.

Registered Horse Power

Owners

R. R. Chellie

Port belonging to

Middlesbrough

Nom. Horse Power as per Section 28

67

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

17"-36"

Length of Stroke

24

Revs. per minute

129

Dia. of Screw shaft

as per rule 7 1/2"

Material of

S. Iron

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

Yes

Is the after end of the liner made water tight

in the propeller boss

Yes

If the liner is in more than one length are the joints burned

Yes

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

Yes

If two

liners are fitted, is the shaft lapped or protected between the liners

Yes

Length of stern bush

3'-0"

Dia. of Tunnel shaft

as per rule 10 1/2"

Dia. of Crank shaft journals

as per rule 7 3/8"

Dia. of Crank pin

7 3/8"

Size of Crank webs

1/2 x 10 1/2"

Dia. of thrust shaft under

collars

7 3/8"

Dia. of screw

9'-0"

Pitch of Screw

9'-6"

No. of Blades

4

State whether moveable

No

Total surface

30 sq ft

No. of Feed pumps

1

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

1

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

One

Sizes of Pumps

5 1/2" x 3 1/2" x 5"

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

In Engine Room

2 - 2" diam.

In Holds, &c.

1 - 2" in hold

1 - 2" suction to fore peak

No. of Bilge Injections

One

sizes 3"

Connected to condenser, or to circulating pump

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

Yes

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

Yes

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

Yes

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 bilge

Yes

Dates of examination of completion of fitting of Sea Connections

29/3/12

of Stern Tube

29/3/12

Screw shaft and Propeller

29/3/12

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

BOILERS, &c.—(Letter for record)

(S)

Manufacturers of Steel

John Peacock & Sons L^{td}

Total Heating Surface of Boilers

1187 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers

One, single ended

Working Pressure

130 lbs.

Tested by hydraulic pressure to

260 lbs.

Date of test

17/11/11

No. of Certificate

8238

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

35 sq ft

No. and Description of Safety Valves to

each boiler

Two, spring loaded

Area of each valve

4.91 sq in

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

10"

dia. of boilers

12'-4 1/2"

Length

10'-0"

Material of shell plates

Steel

Thickness

25/32"

Range of tensile strength

29/33 Tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R. LAP

long. seams

D.R. D.B.S.

Diameter of rivet holes in long. seams

7/8"

Pitch of rivets

5 1/2"

Length of plates

width of butt straps 13 1/2"

Per centages of strength of longitudinal joint

rivets 85.2

plates 83.7

Working pressure of shell by rules

134 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring

30" x 26" x 25/32"

No. and Description of Furnaces in each boiler

Two, plain

Material

Steel

Outside diameter

47"

Length of plain part

top 7'-3 1/2"

bottom 7'-3 1/2"

Thickness of plates

crown 3 1/2"

bottom 3 1/2"

Description of longitudinal joint

Welded

No. of strengthening rings

Yes

Working pressure of furnace by the rules

See

Combustion chamber plates: Material

Reps

Thickness: Sides

Attached

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules

End plates in steam space:

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of stays

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of Front plates at bottom

Working pressure of plate by rules

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Material of Lower back plate

Thickness

Mean pitch of stays

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

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

Yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

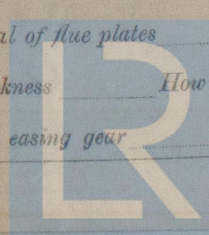
Yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes


 Lloyd's Register
 4728-0179
 Foundation

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No donkey boiler.

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
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:—Two top end bolts & nuts: two bottom end bolts & nuts: two main bearing bolts & nuts: one set of coupling bolts and nuts: one set of feed and bilge pump valves: a quantity of assorted bolts and nuts.

The foregoing is a correct description,

Jno. Blakey

Manufacturer.

1911
Dates of Survey { During progress of work in shops - - - Oct. 10. 21. Nov. 7. 9. Dec. 1. 8. 21. 1912
{ During erection on board vessel - - - Jan. 4. 9. 16. 25. Feb. 1. 6. 14. Mar. 18. 20. 22. 25
while building
Total No. of visits 18

Is the approved plan of main boiler forwarded herewith Yes.

Dates of Examination of principal parts—Cylinders 16/1/12 Slides 25/1/12 " " 25/1/12 " " 25/1/12 donkey " 16/1/12 " " 3/1/12
Connecting rods 3/1/12 Crank shaft 3/1/11 Thrust shaft 25/1/12 Tunnel shafts ✓ Screw shaft 25/1/12 Propeller 3/1/12
Stern tube 3/1/12 Steam pipes tested 22/3/12 Engine and boiler seatings 18/3/12 Engines holding down bolts 22/3/12
Completion of pumping arrangements 25/3/12 Boilers fixed 22/3/12 Engines tried under steam 25/3/12
Main boiler safety valves adjusted 25/3/12 Thickness of adjusting washers Ford Valve 1/32 Rpt. Valve 5/16.
Material of Crank shaft S. Iron Identification Mark on Do. 263 E.M.S. Material of Thrust shaft S. Iron Identification Mark on Do. 8473 N.
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts S. Iron Identification Marks on Do. 8473 N.
Material of Steam Pipes Solid drawn Copper Test pressure 300 lbs per sq. in.

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

The Boiler and Machinery of this Vessel have been constructed under special Survey and placed on board in accordance with the Society's Rules. They are now in my opinion in safe working condition and the case is respectfully submitted for the notation L.M.C. 3-12 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 3.12.

J.W.D. 3/4/12

Q.R.S.

The amount of Entry Fee £ : 0 : 0 When applied for, APR 2 1912
Special £ 10 : 1 : 0
Donkey Boiler Fee £ : : :
Travelling Expenses (if any) £ : : :
When received, 22-4-12

Committee's Minute

FRI. APR. 26. 1912

Assigned

thmc 3.12.

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



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