

Received at London Office MES. 6 SEP 1910

Date of writing Report

19

When handed in at Local Office

2nd Sept 1910 Port of HullNo. in Survey held at
Reg. Book.
on the

Hull

Date, First Survey

July 20th

Last Survey

27th Aug 1910

(Number of Visits 25)

Steel S. Sr. Coronel.

Master

Built at Krefen a/d yel By whom built a J Otto + Tonen

Engines made at

Hull

By whom made

Messrs Earle's & Co Ltd

when made 1910

Boilers made at

By whom made

Messrs Earle's & Co Ltd

when made 1910

Registered Horse Power

Owners Rocha Silva & Co.

Port belonging to Para

Nom. Horse Power as per Section 28

43

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Compound

No. of Cylinders 2

No. of Cranks 2

Dia. of Cylinders

15" - 30"

Length of Stroke

18"

Revs. per minute

130

Dia. of Screw shaft

as per rule 6.75

Material of

Steel

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

No

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

No

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

27"

Dia. of Tunnel shaft

as per rule 5.76

Dia. of Crank shaft journals

as per rule 6.05

Dia. of Crank pin

6 1/4"

Size of Crank webs

12" x 4 1/2"

Dia. of thrust shaft under

collars

6 1/4"

Dia. of screw

7" - 6"

Pitch of Screw

8" - 6"

No. of Blades

3

State whether moveable

No

Total surface

24 sq

No. of Feed pumps

1

Diameter of ditto

2 1/2"

Stroke

4 1/2"

Can one be overhauled while the other is at work

No. of Bilge pumps

1

Diameter of ditto

2 1/2"

Stroke

4 1/2"

Can one be overhauled while the other is at work

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

One 2"

One 2 1/2"

In Holds, &c.

One to each side, each 2 1/2"

One 2 1/2" to fore peak tank

No. of Bilge Injections

1

sizes

3

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 2 1/2"

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

None

Are 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

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

14. 8. 10

of Stern Tube

17. 8. 10

Screw shaft and Propeller

17. 8. 10

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

—

worked from

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

The Steel Coy of Scotland

Total Heating Surface of Boilers

810 sq

Is Forced Draft fitted

No

No. and Description of Boilers

One Cyl. Multi. S. Ended

Working Pressure

130 lbs

Tested by hydraulic pressure to

260 lbs

Date of test

12. 8. 10

No. of Certificate

1762

Can each boiler be worked separately

Area of fire grate in each boiler

35 sq

No. and Description of Safety Valves to

each boiler

Two Spring

Area of each valve

4. 9. 0"

Pressure to which they are adjusted

130 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

8 1/2"

Mean dia. of boilers

10" - 0"

Length

9. 6. 3/4"

Material of shell plates

S

Thickness

1 1/2"

Range of tensile strength

28 - 32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

L. D.

long. seams

D. B. S. D. R.

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

5 3/8"

Lap of plates or width of butt straps

10"

Per centages of strength of longitudinal joint

rivets

83. 4. 4

Working pressure of shell by rules

136 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

5" x 7/8"

No. and Description of Furnaces in each boiler

Two plain

Material

S

Outside diameter

36"

Length of plain part

top 6' - 9"

bottom 8' - 10 1/2"

Thickness of plates

crown 1 1/2"

Description of longitudinal joint

Welded

No. of strengthening rings

0

Working pressure of furnace by the rules

102 lbs

Combustion chamber plates: Material

S

Thickness: Sides

1 1/2"

Back

5/8"

Top

9/16"

Bottom

1 1/2"

Pitch of stays to ditto: Sides

10 1/2" x 6 3/4"

Back

9 3/4" x 9 3/4"

Top

6 3/4" x 11"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

142 lbs

Material of stays

S

Diameter at smallest part

1 1/2"

Area supported by each stay

95 sq

Working pressure by rules

148 lbs

End plates in steam space:

Material

S

Thickness

3/32"

Pitch of stays

15" x 19"

How are stays secured

D. R.

Working pressure by rules

132 lbs

Material of stays

S

Diameter at smallest part

2 5/8"

Area supported by each stay

285 sq

Working pressure by rules

153 lbs

Material of Front plates at bottom

S

Thickness

2 1/2"

Material of Lower back plate

S

Thickness

3/32"

Greatest pitch of stays

14" x 9 3/4"

Working pressure of plate by rules

195 lbs

Diameter of tubes

3"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

S

Thickness: Front

3/32"

Back

1/2"

Mean pitch of stays

12 3/4" x 8 1/2"

Pitch across wide water spaces

14"

Working pressures by rules

150 lbs

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

6 1/2" x 1 1/2"

Length as per rule

25"

Distance apart

11"

Number and pitch of stays in each

Two 6 3/4"

Working pressure by rules

134 lbs

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 in superheater

Are they fitted with easing gear

W1415-0161

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

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 _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each air circulating, feed & bilge pump valves & a quantity of assorted bolts nuts etc.

FOR EARLE'S SHIPBUILDING & ENGINEERING CO. LIMITED

The foregoing is a correct description, F. J. Salethorpe SECRETARY, Manufacturer.

Dates of Survey while building { During progress of work in shops - 1910: - July 20. 21. 22. 23. 25. 27. Aug 3. 5. 6. 8. 9. 10. 11. 12. 13. 16. 17. 19. 20. 22. 23. 24. Aug 25. 26. 27 } During erection on board vessel - - - - - Total No. of visits 25

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 5.8.10 Slides 6.8.10 Covers 17.8.10 Pistons 6.8.10 Rods 5.8.10 Connecting rods 5.8.10 Crank shaft 5.8.10 Thrust shaft 5.8.10 Tunnel shafts 13.8.10 Screw shaft 13.8.10 Propeller 17.8.10 Stern tube 10.8.10 Steam pipes tested 20.8.10 Engine and boiler seatings 17.8.10 Engines holding down bolts 22.8.10 Completion of pumping arrangements 27.8.10 Boilers fixed 22.8.10 Engines tried under steam 27.8.10 Main boiler safety valves adjusted 27.8.10 Thickness of adjusting washers 3/8 Star, 13/32 port

Material of Crank shaft 8. Identification Mark on Do. 431 DFC. Material of Thrust shaft Steel Identification Mark on Do. -

Material of Tunnel shafts S Identification Marks on Do. 382 AR Material of Screw shafts Steel Identification Marks on Do. 382 AR

Material of Steam Pipes Solid drawn Copper Test pressure 260 lbs. per sq. inch.

General Remarks (State quality of workmanship, opinions as to class, &c. The engines and boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are good. The boiler tested by hydraulic pressure and with the engines secured on board and tested under steam, and found satisfactory. They are now in good order and safe working condition, and respectfully submitted, as being eligible in our opinion to be classed with the notation of L.M.C. 8.10 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 8.10.

The amount of Entry Fee .. £ : : : When applied for, 5-9-1910

Special .. £ 8 : : : When received, 15-9-1910

Donkey Boiler Fee .. £ : : : 10.9

Travelling Expenses (if any) £ : : :

Committee's Minute FRI. 9 SEP 1910

Assigned + L.M.C. 8.10

James Barclay, John W. Gwynne, Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.