

WED. 16 MAY 1906

Port of

Belfast

Received at London Office

19

No. in Survey held at
Reg. Book.

Belfast

Date, first Survey nov. 7th 1905Last Survey may. 8th 1906

on the

S.S. "Chiripo"

(Number of Visits 57)

Master

Built at

Belfast By whom built Workman Clark & Co.

Tons

Gross 4041

Net 2574

When built 1906

Engines made at

Belfast

By whom made

when made 1906

Boilers made at

By whom made

when made

Registered Horse Power

Owners Elders & Fyfe (Shipping)

Port belonging to Manchester

Nom. Horse Power as per Section 28

600

Is Refrigerating Machinery fitted for cargo purposes

Yes

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

27"-45"-75"

Length of Stroke

54

Revs. per minute

74

Dia. of Screw shaft

as per rule

15.2

Material of screw shaft

I. Steel

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

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

Yes

Length of stern bush

65"

Dia. of Tunnel shaft

as per rule

14.2

Dia. of Crank shaft journals

as per rule

14.92

Dia. of Crank pin

15.2

Size of Crank webs

28.2

Dia. of thrust shaft under

collars

15.2

Dia. of screw

17.3

Pitch of Screw

19.9

No. of Blades

4

State whether moveable

Yes

Total surface

87.5 sq. ft.

No. of Feed pumps

2

Diameter of ditto

4.5

Stroke

27"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4.5

Stroke

27"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

6

Sizes of Pumps

5x12x4

5x8x4

5x6x4

5x4x4

5x3x4

5x2x4

5x1x4

5x0.5x4

5x0.25x4

5x0.125x4

5x0.0625x4

5x0.03125x4

5x0.015625x4

5x0.0078125x4

5x0.00390625x4

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

In Engine Room

4-3.5"

In Holds, &c.

3-3.5"

No. of Bilge Injections

1

sizes

9"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

Yes-3.5"

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

Both

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

For lock suction

How are they protected

Wood casings

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

27-3-06

of Stern Tube

27-3-06

Screw shaft and Propeller

27-3-06

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Top platform

8. Room

BOILERS, &c.—(Letter for record 5)

Manufacturers of Steel

Lawless S. Co.

Total Heating Surface of Boilers

10400 sq. ft.

Forced Draft fitted

Yes

No. and Description of Boilers

4-Single End Cylindrical

Working Pressure

190 lbs

Tested by hydraulic pressure to

380 lbs

Date of test

8-3-06

No. of Certificate

374

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

64.5 sq. ft.

No. and Description of Safety Valves to

each boiler

2-Vertical Spring

Area of each valve

9.62 sq. ft.

Pressure to which they are adjusted

195 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

18"

Mean dia. of boilers

15.3"

Length

11.6"

Material of shell plates

Steel

Thickness

1.5"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seam

Lap Rivet

long. seams

Auto Rivet

Diameter of rivet holes in long. seams

1.5"

Pitch of rivets

9.8"

Length of plates

4"

width of butt straps

21.5"

Per centages of strength of longitudinal joint

rivets 88.8

plate 84.8

Working pressure of shell by rules

222 lbs

Size of manhole in shell

16"x12"

Size of compensating ring

McKeils

No. and Description of Furnaces in each boiler

4-Vertical

Material

Steel

Outside diameter

41.5"

Length of plain part

top 10"

bottom 10"

Thickness of plates

crown 3.5"

bottom 3.5"

Description of longitudinal joint

Weld

No. of strengthening rings

7

Working pressure of furnace by the rules

205 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

5"

Back 4.5"

Top 5"

Bottom 5"

Working pressure by rules

204 lbs

Pitch of stays to ditto: Sides

8.5"x7.5"

Back

8.5"x8"

Top

8.5"x7.5"

Bottom

8.5"x7.5"

Are stays fitted with nuts or riveted heads

Nuts

Working pressure by rules

239 lbs

Material of stays

Steel

Material of stay

Steel

Diameter at smallest part

1.5"

Area supported by each stay

66 sq. in.

Working pressure by rules

251 lbs

Material of stays

Steel

Diameter at smallest part

2.5"

Area supported by each stay

302.5 sq. in.

Working pressure by rules

201 lbs

Material of Front plates at bottom

Steel

Thickness

1"

Material of Lower back plate

Steel

Thickness

5"

Greatest pitch of stays

13.5"

Working pressure of plate by rules

190 lbs

Diameter of tubes

2.5"

Pitch of tubes

3.5"x3.5"

Material of tube plates

Steel

Thickness: Front

4.5"

Back

4.5"

Mean pitch of stays

7.5"x7.5"

Pitch across wide water spaces

13.5"

Working pressures by rules

194 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

9.5"x(7.5"x2)

Length as per rule

32

Distance apart

8.5"x7.5"

Number and pitch of stays in each

Working pressure by rules

217 lbs

Superheater or Steam chest; how connected to boiler

Yes

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

Yes

Lloyd's Register

VERTICAL DONKEY BOILER

Manufacturers of Steel

H. Beardmore & Co

No. one Description Cochran
 Made at Kunan By whom made Cochran & Co Ltd When made 1906 Where fixed Stokehold
 Working pressure 100 lbs by hydraulic pressure to 200 lbs Date of test 1-3-06 No. of Certificate 7969 Fire grate area 12.5 sq ft Description of Safety
 Valves Direct Spring No. of Safety Valves 2 Area of each 4.9 sq ft Pressure to which they are adjusted 100 lbs Date of adjustment 25-4-06
 If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler No Dia. of donkey boiler 5'-0" Length 10'-9"
 Material of shell plates Steel Thickness 1 5/16" Range of tensile strength 27/32 Descrip. of riveting long. seams Double
 Dia. of rivet holes 25/32 Whether punched or drilled Drilled of rivets 2 5/8" Lap of plating 3 7/8" Per centage of strength of joint 76.4
 Working pressure of shell by rules 102 lbs Thickness of shell crown plates 9/16" Radius of do. 2'-1 1/2" No. of stays to do. None Dia. of stays 5 7/8"
 Diameter of furnace Top 24" Bottom 14" Length of furnace 2'-3" Thickness of furnace plates 9/16" Description of joint Lat. Riv.
 Working pressure of furnace by rules 125 lbs Thickness of furnace crown plates 9/16" Stayed by Yes
 Diameter of uptake 12 1/2" Thickness of uptake plates 9/16" Thickness of water tubes 3/4" Dates of survey 1905 Dec 8.
1906 Feb 26. 23 March 4.
 (Sydney F. Mollison)

SPARE GEAR. State the articles supplied:-

Propeller Shaft & two blades, studs etc. Pair Crank pin bushes
Pair cross head bushes; air pump rod; 2 slide valves & spindles;
Spare for auxiliary pumps & engines; Circulating pump fan & spindle
and all gear to our Rules.

The foregoing is a correct description,
 FOR WORKMAN, CLARK & CO., LIMITED.

W. A. Bell Manufacturer.

Dates of Survey while building
 During progress of work in shops - Nov. 7, 9, 14, 21, 24, 28 Dec. 5, 8, 12, 15, 18, 20
 During erection on board vessel - 13, 15, 19, 22, 26, 27, 30 April 4, 5, 11, 12, 18, 23, 24, 26, 30 May 4, 8
 Total No. of visits 57

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " " No

Dates of Examination of principal parts—Cylinders 4-1-06 Slides 18-12-05 Covers 18-12-05 Pistons 10-1-06 Rods 10-1-06

Connecting rods 15-12-05 Crank shaft 22-2-06 Thrust shaft 22-2-06 Tunnel shafts 22-2-06 Screw shaft 22-2-06 Propeller 5-3-06

Stern tube 5-3-06 Steam pipes tested 19-3-06 Engine and boiler seatings 23-4-06 Engines holding down bolts 18-4-06

Completion of pumping arrangements 30-4-06 Boilers fixed 5-4-06 Engines tried under steam 25-4-06

Main boiler safety valves adjusted 25-4-06 Thickness of adjusting washers 3/4" 5/8"

Material of Crank shaft L. Steel Identification Mark on Do. 22-2-06 Material of Thrust shaft L. Steel Identification Mark on Do. 22-2-06

Material of Tunnel shafts " Identification Marks on Do. " Material of Screw shafts " Identification Marks on Do. "

Material of Steam Pipes Iron Test pressure 540 lbs

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

The machinery of this vessel has been constructed under
Special Licence, and in accordance with the Rules. The
materials and workmanship are of good description, and
on trial in Belfast Lough. The machinery worked
satisfactorily. In my opinion, it is eligible for
record + L.M.C. 5-06.

It is submitted that
 this vessel is eligible for
 THE RECORD

ILMC. 5.06. F.D. ELEC. LIGHT.

REF: MCHY.

The amount of Entry Fee... £ 3 : 0 : When applied for, 9-5-06
 Special ... £ 53 : 6 :
 Donkey Boiler Fee ... £ : : When received, 12-5-06
 Travelling Expenses (if any) £ : : 12-5-06

Committee's Minute

FRI. 18 MAY 1906

Assigned

+ LMC 5.06

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



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 Foundation

MACHINERY CERTIFICATE
 WRITTEN.

Certificate (if required) to be sent to
 This Office

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