

REPORT ON MACHINERY.

No. 22508

Port of

Glasgow

Received at London Office JUL 14 FEB 1906

No. in Survey held at

Paisley

Date, first Survey

11th May 04

Last Survey

Feb 2nd 1905

Reg. Book.

78 Sup on the

S.S. "Camosun"

Master

Built at

Paisley

By whom built

Baird & Lachlan & Co.

Tons

Gross

Net

When built

1905

Engines made at

Paisley

By whom made

Baird & Lachlan & Co.

when made

1905

Boilers made at

Paisley

By whom made

do

when made

1905

Registered Horse Power

Owners

Union S.S. Co. of Brit. Columbia Port belonging to Glasgow

Nom. Horse Power as per Section 28

224

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

18 $\frac{1}{2}$ 30 50

Length of Stroke

36

Revs. per minute

Dia. of Screw shaft

as per rule 10.25

Material of

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

—

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

3' 9"

Dia. of Tunnel shaft

as per rule 9.4

Dia. of Crank shaft journals

as per rule 9.83

Dia. of Crank pin

10

Size of Crank webs

7 $\frac{1}{2}$ "

Dia. of thrust shaft under

collars

10

Dia. of screw

12.0

Pitch of screw

13' 3"

No. of blades

4

State whether moveable

Yes

Total surface

54.6 #

No. of Feed pumps

2

Diameter of ditto

3 $\frac{1}{2}$ "

Stroke

18"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

3 $\frac{1}{2}$ "

Stroke

18"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

6 $\frac{1}{4}$ 4 $\frac{1}{4}$ 7 $\frac{1}{4}$ 5 $\frac{1}{4}$ 5 $\frac{1}{4}$ 5

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

In Engine Room

3 - 2 $\frac{1}{2}$ "

In Holds, &c.

2 - 2 $\frac{1}{2}$ " each hold

No. of bilge injections

1

sizes

7"

Connected to condenser, or to circulating pump

pump

Is a separate donkey suction fitted in Engine room & size

Yes - 2 $\frac{1}{2}$ "

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

—

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

For Suctions

How are they protected

Wood covering

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

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

Before launch

Is the screw shaft tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Top grating

BOILERS, &c.—

(Letter for record (8))

Total Heating Surface of Boilers

4295.6 #

Is forced draft fitted

No

No. and Description of Boilers

Two Single Ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

21.10.04

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

71.3

No. and Description of safety valves to

each boiler

2 Cock burn

Area of each valve

7"

Pressure to which they are adjusted

183 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

width of

stokehold

Mean dia. of boilers

14' 6"

Length

10' 6"

Material of shell plates

slut

Thickness

1 $\frac{1}{32}$ "

Range of tensile strength

28 tons

Are they welded or flanged

no

Descrip. of riveting: cir. seams

D. R. L.

long. seams

D. B. S.

Diameter of rivet holes in long. seams

17/16

Pitch of rivets

9 7/8"

Lap of plates or width of butt straps

1' 8 7/8"

Per centages of strength of longitudinal joint

rivets 93

plate 85

Working pressure of shell by rules

195 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

Flanged

No. and Description of Furnaces in each boiler

3 Dighton

Material

slut

Outside diameter

4' 0"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

weld

No. of strengthening rings

—

Working pressure of furnace by the rules

196

Combustion chamber plates: Material

slut

Thickness: Sides

2 1/32"

Back

19/32"

Top

2 1/32"

Bottom

15/16"

Pitch of stays to ditto: Sides

10" x 7"

Back

8" x 8"

Top

9 1/2" x 8 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

182 lbs

Material of stays

slut

Diameter at smallest part

1.5"

Area supported by each stay

64.81

Working pressure by rules

180

End plates in steam space:

Material

slut

Thickness

1 3/8"

Pitch of stays

18"

How are stays secured

D. nuts

Material

slut

Thickness

1 3/8"

Pitch of stays

18"

How are stays secured

D. nuts

Working pressure by rules

260

Material of stays

slut

Diameter at smallest part

6.98"

Area supported by each stay

32.4

Working pressure by rules

214

Thickness

7/8"

Material of Lower back plate

slut

Thickness

29/32"

Greatest pitch of stays

14"

Working pressure of plate by rules

180 lbs

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2"

Material of tube plates

slut

Pitch across wide water spaces

14"

Working pressures by rules

190 lbs

Girders to Chamber tops: Material

slut

Depth and

thickness of girder at centre

(8" x 7/8")

Length as per rule

2.9"

Distance apart

8 1/2"

Number and pitch of Stays in each

2 - 9 1/2"

Working pressure by rules

230

Superheater or Steam chest; how connected to boiler

none

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

DONKEY BOILER— No. 1 Description Cylindrical Mult-
Made at Paisley By whom made Bow MacLachlan & Co. When made 1905 Where fixed Main Deck
Working pressure 80 tested by hydraulic pressure to 160 No. of Certificate 794 Fire grate area 7.5 Description of safety valves Spring loaded
No. of safety valves 2 Area of each 3.14 Pressure to which they are adjusted 80 lb If fitted with easing gear Yes If steam from main boilers can
enter the donkey boiler No Dia. of donkey boiler 5'-0" Length 6'-0" Material of shell plates Steel Thickness 3/8" Range of tensile
strength 28600 Descrip. of riveting long. seams D. R. L. Dia. of rivet holes 3/4" Whether punched or drilled Drilled Pitch of rivets 2 1/2"
Lap of plating 3 9/16" Per centage of strength of joint Rivets 7.0-4 Plates 7.0 Thickness of shell crown plates — Radius of do. — No. of Stays to do. —
Dia. of stays. — Diameter of furnace Top 26 1/2" Bottom — Length of furnace 65" Thickness of furnace plates 1 1/32" Description of
joint mild Thickness of furnace crown plates 1 3/32" Stayed by — Working pressure of shell by rules 94 lb
Working pressure of furnace by rules 82 lb Diameter of uptake — Thickness of uptake plates — Thickness of water tubes —

SPARE GEAR. State the articles supplied:— 1 Tail shaft, set propeller blades, set H P piston
rings, set I. P. piston rings, pair crank pin brasses, valve spindle,
crosshead brasses, quadrant link & saddle block brasses, etc & the bolts &
nuts required by the Rules.

The foregoing is a correct description,
FOR BOW, MACLACHLAN & CO, LTD Manufacturer.

Dates of Survey while building { During progress of work in shops - 1904 May 11. 17 June 16. 22 28 July 8. 14 22 28 Aug 8. 30 Oct 3. 13 21 26
During erection on board vessel - Nov 14. 17. 24 Dec 1. 5. 9. 14. 20 26 1905 Jan 10. 13. 19 26 Feb 2.
Total No. of visits 29

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " " Yes

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

The machinery & boilers of this vessel have been constructed
under Special Survey & are of good materials & workmanship.
They have been securely fitted on board & satisfactorily tried
under steam.

This vessel is in my opinion eligible for notation * L.M.C. 2.05
in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD

L.M.C. 2.05 ELEC. LIGHT.

ms

15.2.05

14.2.05

The amount of Entry Fee. £ 2: - : When applied for,
Special £ 31: 4: 12 FEB 1905
Donkey Boiler Fee £ : : :
Travelling Expenses (if any) £ : : : When received,
16/2/05

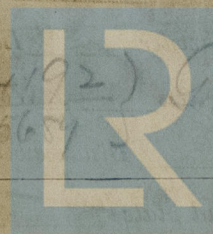
Committee's Minute Glasgow 13 FEB 1905

Assigned

+ L.M.C. 2.05

When fee is paid

H Gardner-Smith
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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Foundation