

# REPORT ON MACHINERY.

No. 13026

11557

Port of

Glasgow

Received at London Office

13

No. in Survey held at  
Reg. Book.

Glasgow

Date, first Survey 3 August 1893 Last Survey 11 June 1894

(Number of Visits 66)

on the

S. S. Strathcarron

Gross 3203  
Net 2050

Master

W. F. Splatt

Built at

Port Glasgow

By whom built

A. Rodger & Co.

When built

1894

Engines made at

Govan

By whom made

Dunsmuir & Jackson

when made

1894

Boilers made at

Govan

By whom made

Dunsmuir & Jackson

when made

1894

Registered Horse Power

302

Owners

Burrell & Son

Port belonging to

Glasgow

Nom. Horse Power as per Section 28

303

## ENGINES, &c.—

Description of Engines

Triple expansion inverted direct acting

No. of Cylinders

Three

Diameter of Cylinders

24, 39, 64 1/2

Length of Stroke

45

Revolutions per minute

Diameter of Screw shaft

as per rule 11.9  
as fitted 12.5

Diameter of Tunnel shaft

as per rule 11.2  
as fitted 12

Diameter of Crank shaft journals

12 1/2

Diameter of Crank pin

12 1/2

Size of Crank webs

8 1/2 x 23

Diameter of screw

16' 6"

Pitch of screw

17 1/2

No. of blades

four

State whether moveable

yes

Total surface

70

No. of Feed pumps

two

Diameter of ditto

3 1/2

Stroke

24

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

two

Diameter of ditto

4"

Stroke

24

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

three

Sizes of Pumps

6 1/2 x 4 x 6 duplex  
4 x 4 x 3 1/2  
9 x 10 x 1 1/2

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

In Engine Room

two 3" and 3 1/2"

In Holds, &c.

via 3"

all bilge and ballast suction are connected to the ballast and circulating pumps

No. of bilge injections

one size 6"

Connected to condenser, or to circulating pump

via 3"

Is a separate donkey suction fitted in Engine room & size

yes 3"

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 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

Ballast & ballast

How are they protected

Placed under ceiling

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 launching

Is the screw shaft tunnel watertight

apparently

Is it fitted with a watertight door

yes

worked from

upper platform

## BOILERS, &c.—

(Letter for record

5)

Total Heating Surface of Boilers

4942

No. and Description of Boilers

two return tubular single ended

Working Pressure

170

Tested by hydraulic pressure to

350

Date of test

29.3.94

Can each boiler be worked separately

yes

Area of fire grate in each boiler

47

No. and Description of safety valves to

each boiler

two spring

Area of each valve

7.07

Pressure to which they are adjusted

175

Are they fitted

with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

stand clear

Mean diameter of boilers

178

Length

4' 6"

Material of shell plates

Steel

Thickness

1 1/4

Description of riveting: circum. seams

Diameter of rivet holes in long. seams

17/16

Pitch of rivets

9 1/2"

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

88.5% rivets  
85.6% plate

Working pressure of shell by rules

173

Size of manhole in shell

12 x 16

Size of compensating ring

McNeil's

No. and Description of Furnaces in each boiler

Three rubber

Material

Steel

Outside diameter

42 1/4

Length of plain part

top 5 1/2  
bottom 5 1/2

Thickness of plates

7/32

Description of longitudinal joint

welded

No. of strengthening rings

rubber

Working pressure of furnace by the rules

178

Combustion chamber plates: Material

Steel

Thickness: Sides

9/16

Back

9/16

Top

9/16

Pitch of stays to ditto: Sides

8

Back

8

Top

8

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

171

Material of stays

Steel

Diameter at smallest part

1.48

Area supported by each stay

64

Working pressure by rules

184

End plates in steam space:

Material

Steel

Thickness

1"

Pitch of stays

16

How are stays secured

8. nuts

Working pressure by rules

175

Material of stays

Steel

Diameter at smallest part

5.27

Area supported by each stay

256

Working pressure by rules

179

Material of Front plates at bottom

Steel

Thickness

7/8

Material of Lower back plate

Steel

Thickness

3/4

Greatest pitch of stays

14"

Working pressure of plate by rules

199

Diameter of tubes

2 1/2

Pitch of tubes

3 3/4 x 3 1/2

Material of tube plates

Steel

Thickness: Front

7/8

Back

13/16

Mean pitch of stays

9 1/4

Pitch across wide water spaces

13 1/2

Working pressures by rules

238, 277

Girders to Chamber tops: Material

Iron

thickness of girder at centre

8" x 2 x 1"

Length as per rule

29"

Distance apart

8"

Number and pitch of Stays in each

two 8"

Working pressure by rules

235

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



DONKEY BOILER—

Description

Cylindrical return tubular. See attached report

Made at

By whom made

When made

Where fixed

Working pressure

tested by hydraulic pressure to

No. of Certificate

Fire grate area

Description of safety valves

No. of safety valves

Area of each

Pressure to which they are adjusted

If fitted with easing gear

If steam from main boilers can enter the donkey boiler

Diameter of donkey boiler

Length

Material of shell plates

Thickness

Description of riveting long. seams

Diameter of rivet holes

Whether punched or drilled

Pitch of rivets

Lap of plating

Per centage of strength of joint

Rivets  
Plates

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

Thickness of furnace crown plates

Stayed by

Working pressure of shell by rules

Working pressure of furnace by rules

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

SPARE GEAR. State the articles supplied:—

As required by the rules also 1/3 built crank shaft, one tailshaft, 2 propeller blades and bottom end brasses.

The foregoing is a correct description,

Manufacturer.

Wm. & Co. Ltd.

General Remarks

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

The main boilers are fitted

with Howdens system of forced draught.

These engines and boilers have been built under the conditions of Special Survey and have been securely fitted on board and <sup>satisfactorily</sup> tested under steam.

The material and workmanship are good.

The sluice valves as fitted could not be worked from above the load waterline, but they are now being altered to suit the rules.

It is submitted that this vessel will be eligible for the record + L.M.C. 6.94 when the sluice valves have been so arranged that they can be worked from above the load water line.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 6.94

W. A. 4-7-94

Certificate (if required) to be sent to

MACHINERY CERTIFICATE  
WRITTEN

The amount of Entry Fee..

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Committee's Minute

Assigned

FRI 6 JUL 1894

+ L.M.C. 6.94

C. J. Stromeier

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



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Lloyd's Register  
Foundation