

REPORT ON BOILERS.

No. 3135-1

Received at London Office

WED. APR. 24. 1912

Date of writing Report

19

When handed in at Local Office

23-4-1912 Port of Glasgow.

No. in Survey held at

Glasgow.

Date, First Survey

2-8-10

Last Survey

20-4-1912

Reg. Book.

(Number of Visits)

90 on the Auxiliary boiler for S.S. "TAQUARY"

Gross 1942

Net 1598

Master T. J. Evangelista

Built at

Glasgow.

By whom built

Mackie & Thompson (N^o 426) when built 1912

Engines made at

Glasgow

By whom made

Muir & Houston (N^o 641)

when made 1912

Boilers made at

Glasgow.

By whom made

Muir & Houston (N^o 641)

when made 1912

Registered Horse Power

243.4.

Owners

Cia Comercio e Navegacao

Port belonging to Rio de Janeiro

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Glasgow & Steel Co. of Scotland, Glasgow, Scotland.

(Letter for record (S))

Total Heating Surface of Boilers

1020 ft²

Is forced draft fitted

No

No. and Description of

Boilers One single ended marine

Working Pressure

180 lbs.

Tested by hydraulic pressure to

360 lbs.

Date of test 13-12-1911

No. of Certificate

11326

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

32 1/2 ft²

No. and Description of

safety valves to each boiler 2 - Spring loaded

Area of each valve

3-14 in

Pressure to which they are adjusted

185 lbs.

Are they fitted with easing gear

Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

✓

Smallest distance between boilers or uptakes and bunkers or woodwork

8'-0"

Mean dia. of boilers

11'-6"

Length

10'-0"

Material of shell plates

Steel

Thickness

3/32

Range of tensile strength

28/32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R.

long. seams

T.R.D.B.S

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

4 1/2"

Lap of plates or width of butt straps

1'-5"

Per centages of strength of longitudinal joint

rivets 102

plate 85

Working pressure of shell by

rules

183 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring

31 x 24 x 1"

No. and Description of Furnaces in each

boiler 2 - Marine

Material

Steel

Outside diameter

3'-6"

Length of plain part

top

Thickness of plates

crown 1/2"

bottom 1/2"

Description of longitudinal joint

weld

No. of strengthening rings

7

Working pressure of furnace by the rules

180 lbs.

plates: Material

Steel

Thickness: Sides

4 1/64"

Back

4 1/64"

Top

4 1/64"

Bottom

3/4"

Pitch of stays to ditto: Sides

8 x 8 1/2"

Back

8 x 9 1/2"

Top 8 x 8 1/2" If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

183 lbs.

Material of stays

Steel

Diameter at

smallest part

1-1/32"

Area supported by each stay

46 in²

Working pressure by rules

182 lbs.

End plates in steam space: Material

Steel

Thickness

1 3/32"

Pitch of stays

14 x 14"

How are stays secured

D.N.

Working pressure by rules

185 lbs.

Material of stays

Steel

Diameter at smallest part

5-05 in²

Area supported by each stay

289 in²

Working pressure by rules

185 lbs.

Material of Front plates at bottom

Steel

Thickness

3/4"

Material of

Lower back plate

Steel

Thickness

13/16"

Greatest pitch of stays

8 x 13 3/4"

Working pressure of plate by rules

180 lbs.

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/2 x 4 1/2"

Material of tube plates

Steel

Thickness: Front

3/4"

Back

3/4"

Mean pitch of stays

9 1/8"

Pitch across wide

water spaces

14 1/4" x 1 1/8" O.P.

Working pressures by rules

199 lbs.

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

4 x 1" (double)

Length as per rule

2'-6"

Working pressure by rules

186 lbs.

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

✓

The foregoing is a correct description,

MUIR & HOUSTON, LIMITED.

SECRETARY

Manufacturer.

Dates

During progress of work in shops - -

During erection on board vessel - -

See Machinery Report

Is the approved plan of boiler forwarded herewith

Yes & advice note.

Total No. of visits

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

The materials and workmanship are good. This boiler has been built under special survey and satisfactorily fitted aboard.

Survey Fee £

When applied for, 19

Travelling Expenses (if any) £

When received, 19

Charged on Machinery Report.

P. J. Brown

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

Committee's Minute GLASGOW 23 APR. 1912

Assigned See accompanying machinery report.