

## REPORT ON BOILERS.

No. 38834.

Received at London Office WED. 18 JUN. 1919

Date of writing Report

191

When handed in at Local Office

16. 6. 1919 Port of Glasgow

No. in Survey held at Glasgow

Date, First Survey 29/5/18. Last Survey 24/3/1919

Reg. Book.

Boiler No B112 for S.S. "Ardgarnock" ex "War Tunnel"

(Number of Visits 16)

Gross

Net

Master

Built at Ardrossan

By whom built Ardrossan D.D. B.B. L. (303)

When built 1919

Engines made at Clydebank

By whom made Aitchison Blair L. (No. 120)

When made 1919

Boilers made at Glasgow

By whom made Dunsmuir &amp; Jackson. B-112

When made 1919.

Registered Horse Power

Owners Messrs Lang &amp; Fulton

Port belonging to Greenock.

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Steel Co of Scotland, Colville &amp; Sons

Letter for record S

Total Heating Surface of Boilers 1998 sq ft

Is forced draft fitted No

No. and Description of

Boilers One single ended multitubular

Working Pressure 180

Tested by hydraulic pressure to 360 lbs

Date of test 24-3-19

No. of Certificate 14662

Can each boiler be worked separately

Area of fire grate in each boiler 60 sq ft

No. and Description of

Safety valves to each boiler 2 Spring Loaded

Area of each valve 5'9 3/4 sq in

Pressure to which they are adjusted 185 lbs per sq in.

Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No.

Smallest distance between boilers or uptakes and bunkers or woodwork 3'6"

INT dia. of boilers 14'6"

Length 10'6"

Material of shell plates S

Thickness 1 3/16"

Range of tensile strength 28/32

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams L.D.R

long. seams All Straps. T.R.

Diameter of rivet holes in long. seams 1 1/4"

Pitch of rivets 8 7/8"

Gap of plates or width of butt straps 18 3/4"

Per centages of strength of longitudinal joint rivets 86.6

plate 85.9.

Working pressure of shell by

Rules 183 lbs

Size of manhole in shell 16 x 12

Size of compensating ring Flanged - 13/16.

No. and Description of Furnaces in each

Boiler 3 Corrugated

Material S

Outside diameter 46"

Length of plain part top

bottom

Thickness of plates crown

bottom 3 9/16"

Description of longitudinal joint Weld

No. of strengthening rings

Working pressure of furnace by the rules 191

Combustion chamber

Rules: Material S

Thickness: Sides 23/32"

Back 11/16"

Top 23/32"

Bottom 23/32"

Pitch of stays to ditto: Sides 10 x 9 1/2"

Back 9 7/8 x 9"

If stays are fitted with nuts or riveted heads Nuts

Working pressure by rules 187 lbs

Material of stays S

Area Diameter at

Smallest part 1'98

Area supported by each stay 95 sq in

Working pressure by rules 187

End plates in steam space: Material S

Thickness 1 3/16"

Pitch of stays 19 3/4 x 1 7/8"

How are stays secured Nuts

Working pressure by rules 190

Material of stays S

Area Diameter at smallest part 6.33

Area supported by each stay 240.6

Working pressure by rules 193

Material of Front plates at bottom S

Thickness 1 5/16"

Material of

Lower back plate S

Thickness 29/32"

Greatest pitch of stays 14 1/2 x 9 7/8"

Working pressure of plate by rules 187

Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2 x 4 1/2"

Material of tube plates S

Thickness: Front 1 1/16"

Back 13/16"

Mean pitch of stays 11 1/4"

Pitch across wide

Inter spaces 14 1/4"

Working pressures by rules 182 lbs

Girders to Chamber tops: Material S

Depth and thickness of

Boiler at centre 8" x 1 1/2"

Length as per rule 29 1/4"

Distance apart 9 1/2"

Number and pitch of Stays in each 2 @ 10"

Working pressure by rules 181

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

S

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

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

Survey request form

DUNSMUIR &amp; JACKSON, Limited.

The foregoing is a correct description,

2162 attached

James Dunsmuir, Director.

Manufacturer.

During progress of

work in shops 1918 May 29. Nov 27. Dec 26. 1919 Jan 8. 13. 17. Is the approved plan of boiler forwarded herewith

Yes.

During erection on

board vessel 21. 23. Feb 5. 10. 18. 24. Mar 5. 10. 17. 24

Total No. of visits 16

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

This boiler has been built under special survey & in accordance with the Rules. The materials & workmanship are sound and satisfactory. This boiler has now been fitted on board, tested under steam and found satisfactory.

Survey Fee ...

£ 6 : 13 :

When applied for, 11. 6. 1919

Travelling Expenses (if any) £

- : - :

When received, 13. 6. 1919.

Committee's Minute GLASGOW

17 JUN. 1919

Signed See accompanying machinery report

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

003106-003115-0058



122

3.  
160  
2,840



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Foundation