

REPORT ON BOILERS.

No. 67793

Received at London Office

Date of writing Report

19

When handed in at Local Office

27.12.1943

Port of

Glasgow

No. in Survey held at
Reg. Book

Glasgow & Greenock

Date, First Survey

8.12.42.

Last Survey

16.12.1943

(Number of Visits

64

Gross

6202

Tons

Net

3663

on the S.S. "PROSPECTOR"

Built at Port Glasgow

By whom built

Messrs Lithgow Ltd

Yard No. 988

When built 1943

Engines made at

Glasgow

By whom made

D. Rowan & Co. Ltd.

Engine No. 1131

When made 1943

Boilers made at

-do-

By whom made

-do-

Boiler No. 1131

When made 1943

Nominal Horse Power

524

Owners

Charente S.S. Co. Ltd.

Port belonging to

Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Bolton & Co. Ltd

(Letter for Record (r))

Total Heating Surface of Boilers

8208 sq ft

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

Two Double Ended

Working Pressure 210 lbs/sq in

Tested by hydraulic pressure to

365 lbs/sq in

PORT-23-9-43

STAR-10-9-43

Date of test

No. of Certificate

21511

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

107.5 sq ft

No. and Description of safety valves to each boiler

Two 3" Improved high lift

Area of each set of valves per boiler

per Rule 11.4

as fitted 14.12

Pressure to which they are adjusted

210 lbs

Are they fitted with easing gear

Yes

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

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

15"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

2'-6"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

15'-8 3/8"

Length

17'-6"

Shell plates: Material

Steel

Tensile strength 29/33 Tons

Thickness 1 7/16" & 1 5/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R.

inter J.R.

long. seams

T.R. D.B.S.

Diameter of rivet holes in

circ. seams

B. 1 1/2" C. 1 1/2" F. 1 5/16"

Pitch of rivets

B. 4.208" C. 4.213" F. 3.34"

Percentage of strength of circ. end seams

plate B. 64.3

F. 60.7

Percentage of strength of circ. intermediate seam

plate 64.4

rivets 68.2

Percentage of strength of longitudinal joint

plate

OUTER 85.6 INNER 85.36

Thickness of butt straps

outer Centre 1 3/4" Ends 1 3/8"

inner 1 5/16" & 1 3/32"

No. and Description of Furnaces in each Boiler

Six Deighton

Material

Steel

Tensile strength 26/30 Tons

Smallest outside diameter 3'-8 3/8"

Length of plain part

top

bottom

Thickness of plates

crown 4 1/16"

bottom 6 3/4"

Description of longitudinal joint

Welded

Dimensions of stiffening rings on furnace or c.c. bottom

Yes

End plates in steam space: Material

Steel

Tensile strength 26/30 Tons

Thickness 1 5/32"

Pitch of stays 21 3/4" x 22"

How are stays secured

D.N.

Tube plates: Material

front Steel

back Steel

Tensile strength 26/30 Tons

Thickness 1"

1 5/32"

Mean pitch of stay tubes in nests

12 3/16"

Pitch across wide water spaces

14 1/2"

Girders to combustion chamber tops: Material

Steel

Tensile strength 28/32 Tons

Depth and thickness of girder

at centre 2 @ 12 1/8" x 7 3/8"

Length as per Rule

3'-9 5/16"

Distance apart Wing 9 1/4" Inner 7 1/4"

No. and pitch of stays

in each 4 @ 9"

Combustion chamber plates: Material

Steel

Tensile strength

26/30 Tons

Thickness: Sides

2 3/32"

Back

Yes

Top

2 3/32"

Bottom

2 3/32"

Pitch of stays to ditto: Sides

9" x 9 1/4"

Back

Yes

Top

9" x 9 1/4"

Are stays fitted with nuts or riveted over

Nuts

Front plate at bottom: Material

Steel

Tensile strength 26/30 Tons

Thickness

1"

Lower back plate: Material

Steel

Tensile strength 26/30 Tons

Thickness

1"

Pitch of stays at wide water space

Yes

Are stays fitted with nuts or riveted over

Yes

Main stays: Material

Steel

Tensile strength 28/32 Tons

Diameter

At body of stay, 3 1/2" & 3 1/4"

or

Over threads

No. of threads per inch

6

Screw stays: Material

Iron

Tensile strength 21 1/2 Tons

Diameter

At turned off part, 1 3/4"

or

Over threads

No. of threads per inch

9



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Are the stays drilled at the outer ends no ✓ Margin stays: Diameter { At turned off part, ✓
or
Over threads ✓
No. of threads per inch ✓
Tubes: Material Iron External diameter { Plain 3½" ✓
Stay 3½" ✓ Thickness { 4 W.G. ✓
3" ✓ No. of threads per inch 9 ✓
Pitch of tubes 4½" x 4½" ✓ Manhole compensation: Size of opening in
shell plate 19½" x 15½" Section of compensating ring 10¼" x 1½" ✓ No. of rivets and diameter of rivet holes 34 @ 1½" ✓
Outer row rivet pitch at ends 10½" ✓ Depth of flange if manhole flanged 3" ✓ Steam Dome: Material None ✓
Tensile strength ✓ Thickness of shell ✓ Description of longitudinal joint ✓
Diameter of rivet holes ✓ Pitch of rivets ✓ Percentage of strength of joint { Plate ✓
Rivets ✓
Internal diameter ✓ Thickness of crown ✓ No. and diameter of
stays ✓ Inner radius of crown ✓
How connected to shell ✓ Size of doubling plate under dome ✓ Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell ✓

Type of Superheater

None

Manufacturers of

Tubes ✓

Steel forgings ✓

Steel castings ✓

Number of elements ✓

Material of tubes ✓

Internal diameter and thickness of tubes

Material of headers ✓

Tensile strength ✓

Thickness ✓

Can the superheater be shut off and

the boiler be worked separately ✓

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler ✓

Area of each safety valve ✓

Are the safety valves fitted with easing gear ✓

Pressure to which the safety valves are adjusted ✓

Hydraulic test pressure:

tubes ✓

forgings and castings ✓

and after assembly in place ✓

Are drain cocks or

valves fitted to free the superheater from water where necessary ✓

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes ✓

The foregoing is a correct description,

For David Rowan & Co. Ltd.
Arch^{ts} N. Grierson

Manufacturer.

Dates of Survey { During progress of
work in shops - -
while building { During erection on
board vessel - - -

See attached

machinery report

Are the approved plans of boiler and superheater forwarded herewith Yes ✓
(If not state date of approval.)

Total No. of visits ✓

Is this Boiler a duplicate of a previous case Yes ✓

If so, state Vessel's name and Report No. "Trader" Glasgow Report No 63260

GENERAL REMARKS

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

These boilers have been built under special survey in accordance with the Rules & approved plans, and the materials & workmanship are good. They have been satisfactorily installed in the vessel & the safety valves have been adjusted to the working pressure.

Survey Fee £

Travelling Expenses (if any) £

When applied for, 19

When received, 19

See Machinery Rept

Committee's Minute

11 JAN 1944

Assigned



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