

Rpt. 5a.

REPORT ON BOILERS.

No. 66556

14 JAN 1943

Received at London Office

Date of writing Report

19

When handed in at Local Office

11.1.43

Port of GLASGOW

6 FEB 1943

No. in Survey held at

GLASGOW

Date, First Survey

12.4.1942

Last Survey

11.1.43

1943

Reg. Book.

on the S/S

"WINDSOR QUEEN"

(Number of Visits

24)

Tons

Gross

Net

Master

Built at BURNTISLAND

By whom built

BURNTISLAND SB

Yard No. 265

When built 1943

Engines made at

GLASGOW

By whom made

DAVID ROWAN & CO. LD.

Engine No. 1112

When made 1943

Boilers made at

-DO-

By whom made

-DO-

Boiler No. 1112

When made 1943

Nominal Horse Power

129

Owners

LONDON & CHANNEL ISLANDS S.S. CO. Port belonging to LONDON

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Colvilles Ltd.

(Letter for Record S)

Total Heating Surface of Boilers

1953 sq

Is forced draught fitted

YES

Coal or Oil fired COAL

No. and Description of Boilers

One single-ended

Working Pressure 200 lbs.

Tested by hydraulic pressure to

350 lbs.

Date of test

28-11-42

No. of Certificate

21262

Can each boiler be worked separately -

Area of Firegrate in each Boiler

44.58 sq

No. and Description of safety valves to each boiler

1-2 3/4" double

Area of each set of valves per boiler

per Rule 11.35 sq

as fitted 11.88 sq

Pressure to which they are adjusted

200 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

front of boiler to bunker bulkhead - 6'-3"

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated YES

Largest internal dia. of boilers

14'-9"

Length

10'-6"

Shell plates: Material

S

Tensile strength

29/32 tons

Thickness

1 9/32"

Are the shell plates welded or flanged

NO

Description of riveting: circ. seams

end double

long. seams

DBS TR

Diameter of rivet holes in

circ. seams

F 1 1/4" B 1 3/8"

Pitch of rivets

F 3.209" B 3.68"

Percentage of strength of circ. end seams

plate

F 61 B 62.6

rivets

52.3 50

Percentage of strength of circ. intermediate seam

plate

F 61 B 62.6

rivets

Percentage of strength of longitudinal joint

plate

85.2

rivets

92.1

combined

88.4

Working pressure of shell by Rules

Thickness of butt straps

outer

3 1/32"

inner

1 3/32"

No. and Description of Furnaces in each Boiler

3 Slight

Material

S

Tensile strength

26/30 tons

Smallest outside diameter

3'-7 3/16"

Length of plain part

top

bottom

Thickness of plates

crown

1 9/32"

bottom

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

End plates in steam space: Material

S

Tensile strength

26/30 tons

Thickness

1 1/4"

Pitch of stays

19 1/4" x 19"

How are stays secured

D.N.

Working pressure by Rules

Tube plates: Material

front

S

back

Tensile strength

26/30 tons

Thickness

29/32"

25/32"

Mean pitch of stay tubes in nests

10 7/32"

Pitch across wide water spaces

14 1/4"

Working pressure

front

back

Girders to combustion chamber tops: Material

S

Tensile strength

28/32 tons

Depth and thickness of girder

at centre

20 8 3/8" x 7 1/8"

Length as per Rule

2'-7 1 7/32"

Distance apart

9 1/2"

No. and pitch of stays

in each

3 @ 7 1/2"

Working pressure by Rules

Combustion chamber plates: Material

S

Tensile strength

26/30 tons

Thickness: Sides

23/32"

Back

1 1/16"

Top

23/32"

Bottom

23/32"

Pitch of stays to ditto: Sides

10 1/8" x 8 3/4"

Back

9 1/4" x 8 1/4"

Top

9 1/2" x 7 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

Front plate at bottom: Material

S

Tensile strength

26/30 tons

Thickness

29/32"

Lower back plate: Material

S

Tensile strength

26/30 tons

Thickness

5 1/64"

Pitch of stays at wide water space

13 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

Main stays: Material

S

Tensile strength

28/32 tons

Diameter

At body of stay,

or

Over threads

3"

No. of threads per inch

6

Area supported by each stay

Working pressure by Rules

Screw stays: Material

S

Tensile strength

26/30 tons

Diameter

At turned off part,

or

Over threads

1 5/8" x 1 3/4"

No. of threads per inch

9

Area supported by each stay

004824-004832-0035

Lloyd's Register
Foundation

Working pressure by Rules
No. of threads per inch 9
Tubes: Material *Iron*
Pitch of tubes $4\frac{3}{8}'' \times 4\frac{1}{2}''$
shell plate $15\frac{1}{2}'' \times 19\frac{1}{2}''$
Outer row rivet pitch at ends $9\frac{5}{8}''$
Tensile strength
Diameter of rivet holes
Internal diameter
stays
How connected to shell
of rivets in outer row in dome connection to shell
Are the stays drilled at the outer ends *No*
Area supported by each stay
External diameter { Plain $3\frac{1}{4}''$
Stay $3\frac{1}{4}''$
Thickness { $\frac{1}{4}''$, $\frac{5}{16}''$ + $\frac{3}{8}''$
Working pressure by Rules
Section of compensating ring $9\frac{1}{4}'' \times 19\frac{3}{4}''$
Depth of flange if manhole flanged $3''$
Thickness of shell
Pitch of rivets
Working pressure by Rules
Inner radius of crown
Size of doubling plate under dome
Description of longitudinal joint
Percentage of strength of joint { Plate
Rivets
Thickness of crown
Working pressure by Rules
No. and diameter of
Manhole compensation: Size of opening in
No. of rivets and diameter of rivet holes $32 @ 1\frac{3}{8}''$
Steam Dome: Material
Type of Superheater
Number of elements
Material of headers
the boiler be worked separately
Area of each safety valve
Rules
tubes
valves fitted to free the superheater from water where necessary
Material of tubes
Tensile strength
Is a safety valve fitted to every part of the superheater which can be shut off from the boiler
Are the safety valves fitted with casing gear
Pressure to which the safety valves are adjusted
forgings and castings
and after assembly in place
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with
Manufacturers of { Tubes
Steel forgings
Steel castings
Internal diameter and thickness of tubes
Thickness
Can the superheater be shut off and
Working pressure as per
Hydraulic test pressure:
Are drain cocks or

The foregoing is a correct description,
For David Rowan & Co. Ltd.
Arch: H. Grierson
Manufacturer.

Dates of Survey { During progress of work in shops - -
while building { During erection on board vessel - - -
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. *"TUDOR QUEEN" No. 163390*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under special survey in accordance with the Rules and approved plans, and the materials and workmanship are good. It has been sent to Burntisland for installation in the vessel.*

This boiler has been efficiently fitted on board and the safety valves adjusted to 200 lbs/sq. in.
J. Campbell.

Job 12/1/43

Survey Fee ... £ :
Travelling Expenses (if any) £ *54* :
When applied for, 10
When received, 10

J. M. M.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 12 JAN 1943

Assigned SEE ACCOMPANYING MACHINERY REPORT.

FRI. 5 MAR 1943 © 2020
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