

See Rtr Rpt. No. 20330

Rpt. 5a.

REPORT ON BOILERS.

No. 63390

Received at London Office JAN 30 1941

Date of writing Report 19 41 When handed in at Local Office 28: 1: 19 41 Port of GLASGOW

No. in Reg. Book. 355 on the "TUDOR QUEEN" Date, First Survey 23rd Jan. 1941

(Number of Visits) Gross Tons Net

Built at BURNTISLAND By whom built BURNTISLAND S.B. CO. LD. Yard No. 247 When built 1941
Engines made at GLASGOW By whom made DAVID ROWAN & CO. LD. Engine No. 1062 When made 1941
Boilers made at -Do- By whom made -Do- Boiler No. 1062 When made 1941
Nominal Horse Power 129 Owners LONDON & CHANNEL ISLANDS S.S. CO. LD. Port belonging to LONDON

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel United Steel Company of Scotland, Ltd. (Letter for Record) s
Total Heating Surface of Boilers 1953 sq ft Is forced draught fitted Yes Coal or Oil fired Coal
and Description of Boilers One single-ended Working Pressure 200 lb.

Tested by hydraulic pressure to 350 lb. Date of test 27-12-40 No. of Certificate 20688 Can each boiler be worked separately -
Area of Firegrate in each Boiler 44 sq ft No. and Description of safety valves to each boiler 1- 2 3/4" double spring
Area of each set of valves per boiler per Rule 11.350" as fitted 11.880" Pressure to which they are adjusted 200 lb. 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 cross bunker = 6'-3" Is oil fuel carried in the double bottom under boilers -
Smallest distance between shell of boiler and tank top plating No tank under boiler Is the bottom of the boiler insulated Yes

Largest external dia. of boilers 14'-9" Length 10'-6" Shell plates: Material steel Tensile strength 29/38 ton
Thickness 1 9/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end D.R. inter. F 3.209" B 3.68"
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. 50.0 Percentage of strength of circ. intermediate seam plate rivets
Percentage of strength of longitudinal joint plate rivets 85.2 92.1 combined 88.4

Thickness of butt straps outer 3 1/32" inner 1 9/32" No. and Description of Furnaces in each Boiler 3 Leighton
Material steel Tensile strength 26/30 tons Smallest outside diameter 3'-7 3/16"
Length of plain part top Thickness of plates crown 1 9/32" bottom 1 9/32" Description of longitudinal joint welded
Dimensions of stiffening rings on furnace or c.c. bottom -

End plates in steam space: Material steel Tensile strength 26/30 tons Thickness 1 1/4" Pitch of stays 19 1/4" x 19"
How are stays secured D.N.

Tube plates: Material front steel back steel 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"

Girders to combustion chamber tops: Material steel Tensile strength 28/32 tons Depth and thickness of girder
at centre 2 @ 8 3/8" x 7/8" Length as per Rule 2'-7 17/32" Distance apart 9 1/2" No. and pitch of stays
in each 3 @ 7 1/2"

Combustion chamber plates: Material steel
Tensile strength 26/30 tons Thickness: Sides 2 3/32" Back 1 1/16" Top 2 3/32" Bottom 2 3/32"
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

Front plate at bottom: Material steel Tensile strength 26/30 tons
Thickness 2 9/32" Lower back plate: Material steel Tensile strength 26/30 tons Thickness 5 1/6"
Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over nuts

Main stays: Material steel Tensile strength 28/32 tons
Diameter At body of stay, 3" No. of threads per inch 6
Over threads -

Screw stays: Material steel Tensile strength 26/30 tons
Diameter At turned off part, 1 5/8" x 1 3/4" No. of threads per inch 9
Over threads -

Are the stays drilled at the outer ends *NO*

Margin stays: Diameter { At turned off part, or Over threads *1 7/8"*

No. of threads per inch *9*

Tubes: Material *Iron*

External diameter { Plain *3 1/4"* Stay *3 1/4"*

Thickness { *8 WG 1/4", 5/16", 3/8"*

No. of threads per inch *9*

Pitch of tubes *4 3/8" x 4 1/2"*

Manhole compensation: Size of opening

shell plate *15 1/2" x 19 1/2"*

Section of compensating ring *9 1/4" x 1 9/32"*

No. of rivets and diameter of rivet holes *32 @ 1 3/8"*

Outer row rivet pitch at ends *9 5/16"*

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

stays

Inner radius of crown

How connected to shell

Size of doubling plate under dome

Diameter of rivet holes and

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

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

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

The foregoing is a correct description,
For David Rowan T.C. L.R.
Arch. H. Grierson

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

SEE ACCOMPANYING MACHINERY REPORT.

Are the approved plans of boiler and superheater forwarded herewith (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. *"NORMAN QUEEN" GLG. R. 15*

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. H. Campbell

Feb 28/1/41

Survey Fee £

When applied for, 19

Travelling Expenses (if any) £ *See receipt*

When received, 19

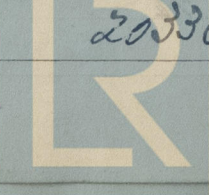
M. Brown
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 28 JAN 1941*

Assigned *SEE ACCOMPANYING MACHINERY REPORT.*

See L.R. 26 20330

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