

REPORT ON BOILERS.

No. 10,409

1 JUL 1930

Received at London Office

Date of writing Report

19

When handed in at Local Office

30-6-1930

Port of Belfast

Details included in 1st. mch report

No. in Survey held at

Belfast

Date, First Survey

Last Survey

19

Reg. Book

16189

on the

TWIN SC

BRITANNIC

(Number of Visits)

Gross

Tons

Net

Built at Belfast

By whom built Harland & Wolff Ltd.

Yard No. 807

When built 1930

Engines made at Belfast

By whom made Harland & Wolff Ltd.

Engine No. 807

When made 1930

Boilers made at Belfast & Lincoln

By whom made Harland & Wolff Ltd. Babcock & Wilcox Ltd.

Boiler No.

When made 1930

Owners Oceanic Lin. Nav. Co. Ltd. (White Star Line)

Port belonging to Liverpool

VERTICAL DONKEY BOILER.

STEAM RESERVOIR.

Made at Belfast

By whom made Harland & Wolff Ltd.

Boiler No. 807

When made 1929.

Where fixed

Manufacturers of Steel

David Colville & Sons Ltd.

Capacity of Reservoir
Total Heating Surface of Boiler88 ft²

Is forced draught fitted

Coal or Oil fired

No. and Description of Boilers One built steel, dome - ends

Working pressure 100 lbs

Tested by hydraulic pressure to

200 lbs

Date of test

19th Nov 1929.

No. of Certificate 83

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Area of each set of valves per boiler

per rule
as fitted

Pressure to which they are adjusted

Are they fitted with easing gear

State whether steam from main boilers can enter the donkey boiler

Smallest distance between boiler or uptake and bunkers

or woodwork

Is oil fuel carried in the double bottom under boiler

Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated

Largest internal dia. of boiler

42"

Length

Height

10'-0"

Shell plates: Material

Steel

Tensile strength

28-32 Tons

Thickness

7/16"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end Single
inter.

long. seams double

Dia. of rivet holes in

circ. seams 15/16"
long. seams 13/16"

Pitch of rivets

2.15"
2 3/4"

Percentage of strength of circ. seams

plate 54.06
rivets 60.2

of Longitudinal joint

plate 70.4
rivets 71.0
combined 76.4

Working pressure of shell by rules

194 lbs

Thickness of butt straps

outer

inner

Suds

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat dished partial spherical

Material Steel

Tensile strength

26-30 Tons

Thickness front 3/4" back 7/8"

Radius

42"

Working pressure by rules

269 lbs

Description of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

Thickness

External diameter

top

bottom

Length as per rule

Working pressure by rules

Pitch of support stays circumferentially

and vertically

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Radius of spherical or dished furnace crown

Working pressure by rule

Thickness of Ogee Ring

Diameter as per rule

D

d

Working pressure by rule

Combustion Chamber: Material

Tensile strength

Thickness of top plate

Radius if dished

Working pressure by rule

Thickness of back plate

Diameter if circular

Length as per rule

Pitch of stays

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Working pressure of back plate by rules

Tube Plates: Material

front

back

Tensile strength

Thickness

Mean pitch of stay tubes in nests

comprising shell, Dia. as per rule

front

back

Pitch in outer vertical rows

Dia. of tube holes FRONT

stay

plain

BACK

stay

plain

each alternate tube in outer vertical rows a stay tube

Working pressure by rules

front

back

Orders to combustion chamber tops: Material

Tensile strength

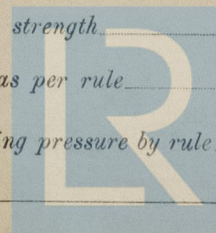
Depth and thickness of girder at centre

Length as per rule

Distance apart

No. and pitch of stays in each

Working pressure by rule



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Foundation

Crown stays: Material _____ Tensile strength _____ Diameter { at body of stay, _____ or over threads _____
 No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____
Screw stays: Material _____ Tensile strength _____ Diameter { at turned off part, _____ or over threads _____ No. of threads per inch _____
 Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____
Tubes: Material _____ External diameter { plain _____ stay _____ Thickness { _____
 No. of threads per inch _____ Pitch of tubes _____ Working pressure by rules _____
Manhole Compensation: Size of opening in shell plate _____ Section of compensating ring _____ No. of rivets and diameter _____
 of rivet holes _____ Outer row rivet pitch at ends _____ Depth of flange if manhole flanged _____
Uptake: External diameter _____ Thickness of uptake plate _____
Cross Tubes: No. _____ External diameters { _____ Thickness of plates _____

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with ☒

The foregoing is a correct description,

Manufacture

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

Is the approved plan of boiler forwarded herewith (If not state date of approval.)

Total No. of visits

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

This reservoir has been constructed under special Survey & to approved plans. The materials and workmanship are good. It has been tested by hydraulic pressure and efficiently fastened on board the vessel.

Survey Fee

See Rpt 46

£ 2 : 2

When applied for,

26-6-1930

Travelling Expenses (if any) £

When received,

19

Committee's Minute

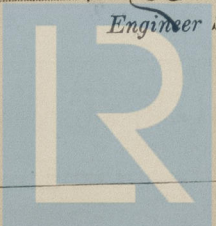
FRI 11 JUL 1930

Assigned

See Rpt attached

R. E. Ames

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation