

1 JUL 1930

Bel 10.409

REPORT ON BOILERS.

No. 16220

Received at London Office

5 FEB 1929

Date of writing Report 4.2.1929

When handed in at Local Office 4.2.1929

Port of

Limerick

No. in Reg. Book

Survey held at

Limerick

Date, First Survey

19.9.28

Last Survey

1-2-

1929

16189 on the

Twin Sc.

"BRITANNIC"

(Number of Visits 19)

Gross Tons

Net

Built at

Belfast

By whom built

Harland & Wolff Ltd.

Yard No. 807

When built 1927

Engines made at

Belfast

By whom made

Harland & Wolff Ltd.

Engine No. 807

When made 1920

Boilers made at

Limerick

By whom made

Babcock & Wilcox Ltd.

Boiler Nos. 73/4585-6-7-8

When made 1928/9

Owners

Oceanic Steam Navigation Co. Ltd.

Port belonging to

Liverpool

VERTICAL DONKEY BOILERS

Made at

Limerick

By whom made

Babcock & Wilcox Ltd.

Boiler Nos. 73/4585-6-7-8

When made 1928/9

Where fixed

Manufacturers of Steel

Parkgate St. Limerick

Total Heating Surface of Boiler

500 sq. ft.

Is forced draught fitted

Coal or Oil fired

Steam

No. and Description of Boilers

Four Clarkson type waste heat boilers

Tested by hydraulic pressure to

200 lb.

Date of test

73/4585-26 Nov. 1928

Working pressure

100 lb.

Area of Firegrate in each Boiler

None

No. and Description of safety valves to each boiler

Area of each set of valves per boiler

per rule

Pressure to which they are adjusted

State whether steam from main boilers can enter the donkey boiler

or woodwork

Is oil fuel carried in the double bottom under boiler

Smallest distance between boiler or uptake and bunkers

Is the base of the boiler insulated

Smallest distance between base of boiler and tank top plating

Shell plates: Material

S. L. steel

Tensile strength

26/32 T

Thickness

7/16"

Are the shell plates welded or flanged

Description of riveting: circ. seams

S. L. Lap.

long. seams

D. R.

Dia. of rivet holes in

circ. seams

Pitch of rivets

Percentage of strength of circ. seams

plate

of Longitudinal joint

rivets

combined

Working pressure of shell by rules

128 lb.

Thickness of butt straps

outer

inner

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

Flat

Material

S. L. steel

Tensile strength

26/30 T

Thickness

5/8"

Radius

Working pressure by rules

237 lb.

Description of Furnace: Plain, spherical, or dished crown

Dished

Material

S. L. steel

Tensile strength

26/30 T

Thickness

15/16"

External diameter

top

bottom

Length as per rule

6'-11 1/2"

Working pressure by rules

196 lb.

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

3'-6"

Working pressure by rule

150 lb.

Thickness of Ogee Ring

7/8"

Diameter as per rule

D

Working pressure by rule

178 lbs.

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

of 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

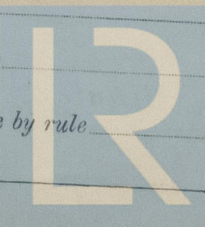
Girders to combustion chamber tops: Material

Tensile strength

Length as per rule

Working pressure by rule

No. and pitch of stays in each



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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 _____ $\left\{ \begin{array}{l} \text{at turned off part,} \\ \text{or} \\ \text{over threads.} \end{array} \right.$ 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 _____ Thickness { _____
 _____ { stay _____
 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 $2' - 9\frac{1}{2}"$ ✓ Thickness of uptake plate $\frac{3}{4}"$ ✓

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,

Annual Boiler Request Survey

The foregoing is a correct de

Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1928 Sep 19, Oct 10, Nov 30, Nov 6, 14, 16, 20, Dec 5, 7, 14, 21, Jan 4, 11, Feb 1	Is the approved plan of boiler forwarded herewith (If not state date of approval.)	Yes
	During erection on board vessel - -		Total No. of visits	17

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey and in accordance with the Rules and approved plan. The materials and workmanship are good.

These boilers have been efficiently fastened on an upper deck platform in the main motor room. They are fitted with two 3" dia Spring loaded safety valves and easing gear. The safety valves have been adjusted under steam to 100 lbs \square " and showed an accumulation of 3 lbs per square inch pressure ~~whereas~~ the engines were running at full speed and the boilers were heated by the exhaust gases.

Free Amner
Beefast.

Survey Fee	...	£	as:	:	When applied for,	19	
Travelling Expenses (if any)	£	:	debited	:	When received,	12 th Mar.	19 29

See Secs 4th.

4585	4.	4.	0	exp.	19/6	applied for	3/12/28
4586	4	4	0	"	2/13	"	28/12/28
4587	4	4	0	"	2/14	"	28/12/28
4588	4	4	0	"	17/3	"	16/1/29

Committee's Minute / FRI. 11 JUL 1930

Assigned

See Bel. F. 8 v. 1. p. 10409

Engineer Surveyor to Lloyd's Register of Shipping.

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