

REPORT ON BOILERS.

No. 42777

Received at London Office WED. 6 JUN 1923

of writing Report 102 When handed in at Local Office # 6 1923 Port of Glasgow.

o. in Survey held at Clydebank Date, First Survey 26th March 1919 Last Survey 30th May 1923.

Book. T/S "FRANCONIA" (Number of Visits 151) Gross 20158 Tons Net 12185.

ster Built at Clydebank By whom built John Brown & Co. Yard No. 492 When built 1923.

ines made at Clydebank By whom made John Brown & Co. Engine No. 492 When made 1923.

ilers made at Clydebank By whom made John Brown & Co. Boiler No. 492 When made 1923.

inal Horse Power Owners Cunard S.S. Co. Port belonging to Liverpool.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel D. Colville Sons (Letter for Record S. r.)

tal Heating Surface of Boilers 9721^{ft} Is forced draught fitted Yes. Coal or Oil fired oil.

and Description of Boilers 3 single end cylindrical multitubular Working Pressure 220 lbs.

sted by hydraulic pressure to 385 lbs. Date of test 11th June 1920 No. of Certificate 15325 Can each boiler be worked separately Yes.

ea of Firegrate in each Boiler 83^{ft} 4ⁱⁿ fitted No. and Description of safety valves to each boiler 2 Spring loaded

ea of each set of valves per boiler { per Rule ✓ as fitted 19.24ⁱⁿ Pressure to which they are adjusted 225 lbs. Are they fitted with easing gear Yes.

ase of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓

allest distance between boilers or uptakes and bunkers or woodwork Well clear Is oil fuel carried in the double bottom under boilers Yes.

allest distance between shell of boiler and tank top plating 16ⁱⁿ Is the bottom of the boiler insulated Yes.

argest internal dia. of boilers 17'6ⁱⁿ Length 11'6ⁱⁿ Shell plates: Material Steel Tensile strength 30/34 tons

ickness 1 21/32ⁱⁿ Are the shell plates welded or flanged No. Description of riveting: circ. seams { end ✓ inter. ✓ } 3.95ⁱⁿ

g. seams Double Diameter of rivet holes in { circ. seams 1 21/32ⁱⁿ long. seams 1 21/32ⁱⁿ } Pitch of rivets { 10.5ⁱⁿ }

ercentage of strength of circ. end seams { plate 58.0 rivets 50.5 } Percentage of strength of circ. intermediate seam { plate ✓ rivets ✓ }

ercentage of strength of longitudinal joint { plate 84.2 rivets 92.03 combined 86.2 } Working pressure of shell by Rules 221 lbs.

ickness of butt straps { outer 1 9/32ⁱⁿ inner 1 5/32ⁱⁿ } No. and Description of Furnaces in each Boiler 4 Morrison Section.

aterial Steel Tensile strength 26/30 tons Smallest outside diameter 45 5/8ⁱⁿ

ngth of plain part { top ✓ bottom ✓ } Thickness of plates { crown 11/16ⁱⁿ bottom 11/16ⁱⁿ } Description of longitudinal joint Welder.

ensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 221 lbs.

id plates in steam space: Material Steel Tensile strength 26/30 tons. Thickness 1/4ⁱⁿ Pitch of stays 17 7/8ⁱⁿ x 18ⁱⁿ

ow are stays secured Nuts. Working pressure by Rules 230 lbs.

be plates: Material { front Steel back Steel } Tensile strength { 26/30 tons. } Thickness { 1 5/16ⁱⁿ }

an pitch of stay tubes in nests 10ⁱⁿ Pitch across wide water spaces 13 3/4ⁱⁿ Working pressure { front 318 lbs. back 319 lbs. }

rders to combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder

centre 9ⁱⁿ x 1 1/2ⁱⁿ Length as per Rule 30 1/32ⁱⁿ Distance apart 8ⁱⁿ No. and pitch of stays

each 2 of 9 7/8ⁱⁿ Working pressure by Rules 290 lbs. Combustion chamber plates: Material Steel

nsile strength 26/30 tons Thickness: Sides 23/32ⁱⁿ Back 23/32ⁱⁿ Top 23/32ⁱⁿ Bottom 13/16ⁱⁿ

ch of stays to ditto: Sides 8ⁱⁿ x 9 7/8ⁱⁿ Back 7 7/8ⁱⁿ x 10ⁱⁿ Top 8ⁱⁿ x 9 7/8ⁱⁿ Are stays fitted with nuts or riveted over Nuts inside, riveted at shell.

orking pressure by Rules 224 lbs. Front plate at bottom: Material Steel Tensile strength 26/30 tons

ickness 1ⁱⁿ Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 29/32ⁱⁿ

ch of stays at wide water space 13 3/4ⁱⁿ Are stays fitted with nuts or riveted over Margin nuts, inside riveted.

orking Pressure 360 lbs. Main stays: Material Steel Tensile strength 28/32 tons.

iameter { At body of stay, 3ⁱⁿ or 3 1/4ⁱⁿ } No. of threads per inch 6. Area supported by each stay 317^{sq}

orking pressure by Rules 253 lbs. Screw stays: Material Iron Tensile strength 21 1/2 tons

iameter { At turned off part, 1 3/4ⁱⁿ or 1 3/4ⁱⁿ } No. of threads per inch 9 Area supported by each stay 79^{sq}

REPORT ON BOILERS

Rpt. 13.

RE

Date of writing

No. in Survey Reg. Book. **49028** on the

Built at
Owners

Electric Light

System of Dis
Pressure of sup

Direct or Alter
If alternating cu

Has the Automa
Generators, do

are they over com
Where more than

series with each sh
Are all terminals

or short circuited.
Position of Gen

is the ventilation
if situated near

are their axis of
Earthing, are th

their respective ge
Main Switch B

a fuse on each insu
Switchboards, a

are they protected f
woodwork or other

are they constructed
permanently high

insulated from the
frame effectively ea

YES
bars **YES**

Main Switchgear
I-D.P. SWITCH

EACH MAIN

Instruments on
Earth Testing, s

ON EARTHING
Switches, Circui

Section and Dist

Working pressure by Rules 226 lbs Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8" or Over threads

No. of threads per inch 9 Area supported by each stay 93" Working pressure by Rules 225 lbs

Tubes: Material iron External diameter { Plain 2 3/4" Stay 2 3/4" Thickness { 5/16" 5/16" 1/4" No. of threads per inch 9

Pitch of tubes 4" x 4" Working pressure by Rules 275 lbs **Manhole compensation:** Size of opening in shell plate 21" x 17" Section of compensating ring 40" x 3 1/2" x 1 2/32" No. of rivets and diameter of rivet holes 40 of 1 2/32"

Outer row rivet pitch at ends 1 1/2" Depth of flange if manhole flanged 4 1/2" **Steam Dome:** Material iron

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 Working pressure by Rules Thickness of crown No. and diameter of stays Inner radius of crown Working pressure by Rules

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 *The superheaters have been removed from these boilers.*

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

Area of each safety valve Are the safety valves fitted with easing gear Working pressure as per Rules Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes, 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 23 inclusive for boilers been complied with Yes.

The foregoing is a correct description, Limited
John Brown & Company, Limited
Manufacturers

Dates of Survey { During progress of work in shops -- } See accompanying Are the approved plans of boiler and superheater forwarded herewith See accompanying
{ while building } Machinery report (If not state date of approval.)
Total No. of visits 151

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

These boilers have been built under survey and in accordance with the Rules and approved plan, they have been satisfactorily fitted on board.

See also 1st Entry Report.

Survey Fee ... £ See 1st Entry When applied for, 192

Travelling Expenses (if any) £ : : When received, 192

A. Campbell
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 5-JUN 1923

Assigned See accompanying machinery report.

FRI. JUN. 29 1923



Lloyd's Register Foundation

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