

Rpt. 5b.

REPORT ON BOILERS

 NEWCASTLE-ON-TYNE No. 83570
 -8 DEC 1928

No. 15940

Date of writing Report

27. 7. 1928

When handed in at Local Office

27. 7. 1928

Received at London Office

23. 11. 1928

No. in Reg. Book

Survey held at

Lincoln

Port of

Grimsby

on the

S. S. M. V. "PORT ALMA"

Date, First Survey

31. 5. 28

Last Survey

17. 7. 1928

(Number of Visits)

Tons { Gross 7983
Net 4926

Built at

Wallsend

By whom built

Iwan Hunter & Co.

Engines made at

Sunderland

By whom made

W. & A. Richardson Ltd.

Yard No.

1341

When built 1928

Boilers made at

Lincoln

By whom made

H. & A. Richardson Ltd.

Engine No.

When made 1928

Owners

Commonwealth

Dominion Line, Ltd.

By whom made

H. & A. Richardson Ltd.

Boiler No.

When made 1928

VERTICAL DONKEY BOILER.

Made at

Lincoln

By whom made

H. & A. Richardson Ltd.

Manufacturers of Steel

Parkgate 10 S. G. Ltd.

Total Heating Surface of Boiler

75 sq. ft.

No. and Description of Boilers

One "Clarkson" Vertical Tube Type

Is forced draught fitted

No

Tested by hydraulic pressure to

200 lbs.

Date of test

17th July, 1928

Coal or Oil fired

Subs. gas

Area of Firegrate in each Boiler

None

No. and Description of safety valves to each boiler

One "Clarkson" Vertical Tube Type

Working pressure

100 lbs.

Area of each set of valves per boiler

per rule 8.44

as fitted

1.964

Pressure to which they are adjusted

100

No. of Certificate

238

State whether steam from main boilers can enter the donkey boiler

No

Are they fitted with easing gear

No

Is oil fuel carried in the double bottom under boiler

No

Smallest distance between boiler or uptake and bunkers

Is the base of the boiler insulated

No

Smallest distance between base of boiler and tank top plating

Shell plates: Material

S. G. steel

Largest internal dia. of boiler

1'-7 3/4"

Height

6'-3 1/2"

Are the shell plates welded or flanged

No

Tensile strength

28/32 T.

Thickness

5/16"

Dia. of rivet holes in

circ. seams 3/4"

long. seams

Pitch of rivets

Description of riveting: circ. seams

end S. G. L. & P.

inter.

Working pressure of shell by rules

196 lbs.

Percentage of strength of circ. seams

plate 57%

rivets 66%

combined 53.5%

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

Flat

Tensile strength

26/30 T.

Thickness

5/16"

Radius

Flat

Material

S. G. steel

Description of Furnace: Plain, spherical, or dished crown

Plain

Material

S. G. steel

Thickness

External diameter

top

bottom

Length as per rule

Working pressure by rules

Tensile strength

Working pressure by rule

Are stays fitted with nuts or riveted over

Pitch of support stays circumferentially

and vertically

Radius of spherical or dished furnace crown

Working pressure by rule

Tensile strength

Working pressure by rule

Thickness of top plate

Diameter if circular

Diameter of stays over thread

Thickness of Ogee Ring

Diameter as per rule

Working pressure by rule

Tensile strength

Working pressure by rule

Thickness of back plate

Diameter if circular

Combustion Chamber: Material

S. G. steel

Working pressure by rule

Tensile strength

Working pressure by rule

Thickness of top plate

Diameter if circular

Radius if dished

Length as per rule

Pitch of stays

Working pressure of back plate by rules

Tensile strength

Working pressure by rule

Thickness of top plate

Diameter if circular

Plates: Material

S. G. steel

Working pressure of back plate by rules

Tensile strength

Working pressure by rule

Thickness of top plate

Diameter if circular

Comprising shell, Dia. as per rule

front

back

Pitch in outer vertical rows

Dia. of tube holes FRONT

stay

BACK

stay

plain

Pitch alternate tube in outer vertical rows a stay tube

Working pressure by rules

Tensile strength

Length as per rule

Working pressure by rule

Thickness of top plate

Diameter if circular

Plates: Material

S. G. steel

Working pressure of back plate by rules

Tensile strength

Working pressure by rule

Thickness of top plate

Diameter if circular

Comprising shell, Dia. as per rule

front

back

Pitch in outer vertical rows

Dia. of tube holes FRONT

stay

BACK

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plain

Pitch alternate tube in outer vertical rows a stay tube

Working pressure by rules

Tensile strength

Length as per rule

Working pressure by rule

Thickness of top plate

Diameter if circular

Plates: Material

S. G. steel

Working pressure of back plate by rules

Tensile strength

Working pressure by rule

Thickness of top plate

Diameter if circular

Comprising shell, Dia. as per rule

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Pitch in outer vertical rows

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Pitch alternate tube in outer vertical rows a stay tube

Working pressure by rules

Tensile strength

Length as per rule

Working pressure by rule

Thickness of top plate

Diameter if circular

Plates: Material

S. G. steel

Working pressure of back plate by rules

Tensile strength

Working pressure by rule

Thickness of top plate

Diameter if circular

Comprising shell, Dia. as per rule

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Pitch alternate tube in outer vertical rows a stay tube

Working pressure by rules

Tensile strength

Length as per rule

Working pressure by rule

Thickness of top plate

Diameter if circular

Plates: Material

S. G. steel

Working pressure of back plate by rules

Tensile strength

Working pressure by rule

Thickness of top plate

Diameter if circular

Comprising shell, Dia. as per rule

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Pitch in outer vertical rows

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Working pressure by rules

Tensile strength

Length as per rule

Working pressure by rule

Thickness of top plate

Diameter if circular

Plates: Material

S. G. steel

Working pressure of back plate by rules

Tensile strength

Working pressure by rule

Thickness of top plate

Diameter if circular

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Working pressure by rules

Tensile strength

Length as per rule

Working pressure by rule

Thickness of top plate

Diameter if circular

Plates: Material

S. G. steel

Working pressure of back plate by rules

Tensile strength

Working pressure by rule

Thickness of top plate

Diameter if circular

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Tensile strength

Length as per rule

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Thickness of top plate

Diameter if circular

Plates: Material

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Working pressure of back plate by rules

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Pitch in outer vertical rows

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plain

Pitch alternate tube in outer vertical rows a stay tube

Working pressure by rules

Tensile strength

Length as per rule

Working pressure by rule

Thickness of top plate

Diameter if circular

Plates: Material

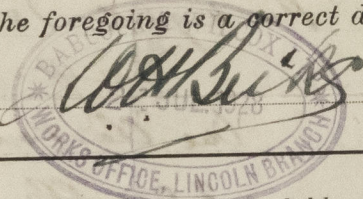
S. G. steel

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 *S. L. steel* External diameter ☒ { plain *1 1/2" 61"* stay ☒ Thickness ☒ *13 Bwgs.*
 No. of threads per inch ☒ Pitch of tubes *1 5/8 vertical, 2 3/4 horiz.* 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,

Annual Survey Request



Manufacturer.

Dates of Survey { During progress of work in shops - - *1938 May 31 Jun 7 13 29 Jul 13 17* Is the approved plan of boiler forwarded herewith *Yes. - 31/1/28*
 while building { During erection on board vessel - - *Drwg. No. 1678*
 Total No. of visits *6* *See pms 15939*
SNOW 1239 60/267

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

This boiler has now been securely fitted on board the vessel & its safety valves adjusted under steam to above working pressure.

Survey Fee ... £ *4:4* When applied for *29 7 1938*
 Travelling Expenses (if any) £ *1:10* When received *as per certificate from N.W.*

Committee's Minute

Assigned

FRI. 14 DEC 1928

See Rec. L. & P. No. 83570

W. H. Kinlay
 Engineer Surveyor to Lloyd's Register of Shipping.
Fred. A. Ferguson,
Newcastle-on-Tyne
 Lloyd's Register Foundation