

REPORT ON BOILERS.

No. 90343

28 JUL 1933

Received at London Office

of writing Report

19

When handed in at Local Office

26.7.

19

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at

Newcastle-on-Tyne

Date, First Survey

2nd June 1931

Last Survey

25.7.

1933

No. Book

067 on the

T. Sc. M. V. "PORT CHALMERS"

(Number of Visits 13.)

Gross 8526

Net 8204

uilt at

Newcastle-on-Tyne

By whom built

Swan, Hunter & Wigham Richardson

Yard No. 1483.

When built 1933.

ines made at

Glasgow

By whom made

Barclay Curle & Co. Ltd.

Engine No. EW.105

When made 1933.

made at

Newcastle (Scotswood)

By whom made

Spencer-Hopwood, Ltd.

Boiler No. PB.208

When made 1933.

ners

Commonwealth & Dominion Line Ltd.

Port belonging to

London.

VERTICAL DONKEY BOILER.

de at

Scotswood

By whom made

Spencer-Hopwood, Ltd.

Boiler No. PB.208

When made 1933

Where fixed E. Room port side

ufacturers of Steel

The Steel Company of Scotland, Ltd.

al Heating Surface of Boiler

47.6 sq ft

Is forced draught fitted

Coal or Oil fired

oil

and Description of Boilers

One Spencer-Hopwood (N-3 Standard Lys)

Working pressure

150 lbs./sq in

ted by hydraulic pressure to

275 lbs./sq in

Date of test

3rd July, 1933.

No. of Certificate

596.

a of Firegrate in each Boiler

3.75 sq ft

No. and Description of safety valves to each boiler

One spring loaded

a of each set of valves per boiler

per rule 3.14

as fitted 3.14

Pressure to which they are adjusted

100 lbs./sq in

Are they fitted with easing gear

yes.

te whether steam from main boilers can enter the donkey boiler

Smallest distance between boiler or uptake and bunkers

oodwork

✓

Is oil fuel carried in the double bottom under boiler

no

Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated

✓

Largest internal dia. of boiler

2'-6"

Height

7'-3"

ll plates: Material

Steel

Tensile strength

28/32 tons/sq in

Thickness

3/8"

the shell plates welded or flanged

no

Description of riveting: circ. seams

end. S.R.

long. seams

DR. Lap.

of rivet holes in

circ. seams 13/16"

Pitch of rivets

2'-0"

Percentage of strength of circ. seams

plate 59.37

of Longitudinal joint

plate 69.4

king pressure of shell by rules

223 lbs./sq in

Thickness of butt straps

outer

inner

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

flat

Material

steel

sile strength

26/30 tons/sq in

Thickness

7/16"

Radius

-

Working pressure by rules

165 lbs./sq in

ription of Furnace: Plain, spherical, or dished crown

plain

Material

steel

Tensile strength

26/30 tons/sq in

ickness

7/16"

External diameter

top 2'-1 1/2"

bottom 2'-1 1/2"

Length as per rule

3'-1 1/2"

Working pressure by rules

156 lbs./sq in

h of support stays circumferentially

✓

and vertically

✓

Are stays fitted with nuts or riveted over

✓

meter of stays over thread

✓

Radius of spherical or dished furnace crown

✓

Working pressure by rule

✓

ickness of Ogee Ring

✓

Diameter as per rule

✓

Working pressure by rule

✓

ustion Chamber: Material

✓

Tensile strength

✓

Thickness of top plate

✓

ius if dished

✓

Working pressure by rule

✓

Thickness of back plate

✓

Diameter if circular

✓

th as per rule

✓

Pitch of stays

✓

Are stays fitted with nuts or riveted over

✓

meter of stays over thread

✓

Working pressure of back plate by rules

✓

Plates: Material

front

back

✓

Tensile strength

26/30 tons/sq in

Thickness

7/16"

Mean pitch of stay tubes in nests

6 1/4"

mprising shell, Dia. as per rule

front

back

Pitch in outer vertical rows

✓

Dia. of tube holes FRONT

stay 2 1/4"

plain 2 1/4"

BACK

stay 2 1/2"

plain 2 1/2"

ch alternate tube in outer vertical rows a stay tube

no

Working pressure by rules

front

back

164 lbs./sq in

ers to combustion chamber tops: Material

✓

Tensile strength

✓

h and thickness of girder at centre

✓

Length as per rule

✓

nce apart

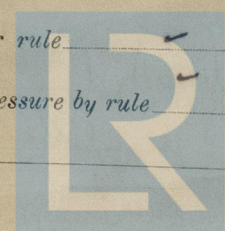
✓

No. and pitch of stays in each

✓

Working pressure by rule

✓



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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 ☒ 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 ☒

Water Tubes: Material *Sp. Steel* External diameter ☒ plain *2 1/4"* Thickness ☒ *10 W. 9. 1/4"*

No. of threads per inch *11* Pitch of tubes *3 1/8" x 3 1/8"* Working pressure by rules *193 lbs./sq. in.*

Manhole Compensation: Size of opening in shell plate *8 3/16" x 5 1/8"* Section of compensating ring *4 5/16"* No. of rivets and diameter of rivet holes *12 R. 13/16" dia.* Outer row rivet pitch at ends *3"* Depth of flange if manhole flanged ☒

Uptake: External diameter *9"* Thickness of uptake plate *7/16"*

Cross Tubes: No. ☒ External diameters ☒ Thickness of plates ☒

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *yes.*

The foregoing is a correct description,
For: *Spencer-Hopwood Ltd.*

Dates of Survey while building

During progress of work in shops -	<i>1931 June 2, 16, Aug. 5, 21, Sep. 3, 9, 11, 16, Nov. 3, 12.</i>	Is the approved plan of boiler forwarded herewith <i>Yes. Boiler</i> (If not state date of approval.)
During erection on board vessel -	<i>1933 July 3, 7, 25.</i>	

Total No. of visits *13.*

Is this Boiler a duplicate of a previous case ☒ If so, state Vessel's name and Report No. ☒

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been constructed under special survey in accordance with the rules and approved plan. The materials and workmanship are good; the shell extension (ash pit) has increased 12" over the standard type boiler. The boiler is intended to be fitted in the T.S.M.V. No. 1483 being constructed Messrs. Swan, Hunter & Wigham Richardson, Ltd., Wallsend.*

This boiler has been satisfactorily installed in the vessel; the safety valves adjusted under steam; boiler examined under steam and found satisfactory. This boiler is intended for domestic purposes.

*H.B. Forster,
Newcastle-on-Tyne,
27th Decr, 1933*

Balance of

Survey Fee	£ 1 : 11 : 6	When applied for, <i>27 JUL 1933</i>
Travelling Expenses (if any)	£ :	When received, <i>5th Sept 1933</i>

Committee's Minute
Assigned

FRI. 5 JAN 1934

See New Rpt. 90866

Engineer Surveyor to Lloyd's Register of Shipping



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