

## REPORT ON BOILERS.

No. 12323

6 JAN 1948

Received at London Office

Date of writing Report 29<sup>th</sup> Dec 47 When handed in at Local Office

19

Port of Capen Hague

No. in Reg. Book. Survey held at Capen Hague

Date, First Survey 14<sup>th</sup> Feb 47 Last Survey 28<sup>th</sup> Dec 47

21768 on the S.S. "CLARA"

(Number of Visits 6) Tons { Gross 1398 Net 748

Master ✓ Built at Sluis By whom built Howaldts werke Yard No. 669 When built 1925

Engines made at Sluis By whom made Howaldts werke Engine No. 775 When made 1925

Boilers made at Sluis By whom made Howaldts werke Boiler No. 408-9 When made 1925

Nominal Horse Power 159 Owners 9<sup>th</sup> 1/5 Sollym (Hollandsche) Port belonging to Capen Hague

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (Letter for Record ✓)

Total Heating Surface of Boilers 2 x 101 m<sup>2</sup> Is forced draught fitted no ✓ Coal or Oil fired coalNo. and Description of Boilers 2 off single end multitubular each with 2 corr. furnaces Working Pressure 13 kg/cm<sup>2</sup>

Tested by hydraulic pressure to Date of test No. of Certificate Can each boiler be worked separately yes

Area of Firegrate in each Boiler 2.64 m<sup>2</sup> No. and Description of safety valves to each boiler 2 off direct spring loaded 75 mm diamArea of each set of valves per boiler { per Rule 57000 cm<sup>2</sup> as fitted 80000 cm<sup>2</sup> Pressure to which they are adjusted 13 kg/cm<sup>2</sup> Are they fitted with easing gear yes ✓

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork 30 cm Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating 425 cm Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 3350 mm Length 3200 mm Shell plates: Material Steel Tensile strength

Thickness 24.5 mm Are the shell plates welded or flanged no ✓ Description of riveting: circ. seams { end Double 216-246

long. seams 26 mm diameter of rivet holes in { circ. seams 26 mm Pitch of rivets { 85 mm ✓

Percentage of strength of circ. end seams { plate rivets Percentage of strength of circ. intermediate seam { plate rivets

Percentage of strength of longitudinal joint { plate rivets Working pressure of shell by Rules

Thickness of butt straps { outer 22 mm inner 22 mm No. and Description of Furnaces in each Boiler 2 off corrugated Douglas section

Material Steel Tensile strength Smallest outside diameter 980 mm

Length of plain part { top bottom Thickness of plates { crown 14 mm Description of longitudinal joint none (welded)

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules

End plates in steam space: Material Steel Tensile strength Thickness 25 mm Pitch of stays 400 x 420 mm

How are stays secured nuts &amp; washers inside &amp; outside Working pressure by Rules

Tube plates: Material { front back Steel Tensile strength Thickness { 25 mm ✓ 20 mm ✓

Mean pitch of stay tubes in nests 300 mm Pitch across wide water spaces 370 mm Working pressure { front back ✓

Girders to combustion chamber tops: Material Steel Tensile strength Depth and thickness of girder

at centre (80 x 18 mm) 2 Length as per Rule 615 mm Distance apart 240 mm No. and pitch of stays

in each 2 off 200 mm apart Working pressure by Rules Combustion chamber plates: Material Steel

Tensile strength Thickness: Sides 16 mm Back 16 mm Top 16 mm Bottom 16 mm

Pitch of stays to ditto: Sides 200 x 200 mm Back 200 x 200 mm Top 200 x 240 mm Are stays fitted with nuts or riveted over nuts &amp; washers inside &amp; outside

Working pressure by Rules Front plate at bottom: Material Steel Tensile strength

Thickness 25 mm Lower back plate: Material Steel Tensile strength Thickness 25 mm

Pitch of stays at wide water space 450 mm 370 on plane Are stays fitted with nuts or riveted over nuts &amp; washers inside &amp; outside

Working Pressure Main stays: Material Steel Tensile strength

Diameter { At body of stay, or Over threads 73 mm ✓ 78 mm No. of threads per inch 8 Area supported by each stay 168000 mm<sup>2</sup>Working pressure by Rules Diameter { At turned off part, or Over threads 35 mm ✓ No. of threads per inch 11 Area supported by each stay 40000 mm<sup>2</sup>

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Working pressure by Rules - Are the stays drilled at the outer ends *no* ✓ Margin stays: Diameter { At turned off part, *42 in* or Over threads

No. of threads per inch *11* Area supported by each stay *all 56000 sq in* Working pressure by Rules -

Tubes: Material *Steel* External diameter { Plain *89 in* ✓ Stay *89 in* ✓ Thickness { *8 in* ✓ No. of threads per inch *11*

Pitch of tubes *12 in x 12 in* ✓ Working pressure by Rules - Manhole compensation: Size of opening in shell plate *400 x 500 in* Section of compensating ring *flange (24.5 x 240 in) x 2* No. of rivets and diameter of rivet holes *48 off 2 in*

Outer row rivet pitch at ends *150 in* Depth of flange if manhole flanged *20 in* Steam Dome: Material

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

How connected to shell Inner radius of crown Working pressure by Rules

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 *Schmidt's patent* Manufacturers of { Tubes Steel forgings Steel castings

Number of elements *1 each boiler* Material of tubes *Steel* Internal diameter and thickness of tubes *18 in - 2 1/2 in*

Material of headers *Steel* Tensile strength Thickness *20 in* Can the superheater be shut off and the boiler be worked separately *yes* ✓ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *yes*

Area of each safety valve *1980 sq in* Are the safety valves fitted with easing gear *yes* ✓ Working pressure as per Rules - Pressure to which the safety valves are adjusted *13 kg/sq cm* Hydraulic test pressure: tubes forgings and castings and after assembly in place Are drain cocks or valves fitted to free the superheater from water where necessary *yes* ✓

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

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - - Are the approved plans of boiler and superheater forwarded herewith *yes* (If not state date of approval.) while building { During erection on board vessel - - - *14/11 - 17/11 - 20/11 - 27/11 - 2/12 - 20/12* Total No. of visits *6*

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *The scantlings of the above boilers have been checked and found in accordance with the approved plans*

Survey Fee ... £ : : When applied for, 19

Travelling Expenses (if any) £ : : When received, 19

*J. Langhorne Jones*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 23rd 1910

Assigned

*See minute on form 9.*



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