

REPORT ON BOILERS.

No. 12323
6 JAN 1948

Received at London Office

Date of writing Report 29th Dec 1947 When handed in at Local Office 19 Port of Cape Town

No. in Reg. Book 21768 Survey held at Cape Town Date, First Survey 14th Nov 1947 Last Survey 29th Dec 1947

on the Singer Se. "CLARA" (Number of Visits 6) Tons { Gross 1398 Net 798

Master Plie Built at Plie By whom built Louwals werke Yard No. 669 When built 1925

Engines made at Plie By whom made Louwals werke Engine No. 775 When made 1925

Boilers made at Plie By whom made Louwals werke Boiler No. 408-9 When made 1925

Nominal Horse Power 159 Owners of Sollyrus (Huis of Woulters) Part belonging to Cape Town

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel 2+1087# (Letter for Record)

Total Heating Surface of Boilers 2 x 101 m² Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers 2 off single end multitubular each with 2 in. furnace Working Pressure 13 kg/cm²

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 m² No. and Description of safety valves to each boiler 2 off direct spring loaded 75 mm diam

Area of each set of valves per boiler { per Rule 5700 cm² as fitted 8000 cm² Pressure to which they are adjusted 13 kg/cm² 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 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 Zig-Zag inter. -

long. seams 26 mm Diameter of rivet holes in { circ. seams 26 mm long. seams 26 mm Pitch of rivets { 85 mm 170 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 - combined - 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 duplex section

Material Steel Tensile strength - Smallest outside diameter 980 mm

Length of plain part { top - bottom - Thickness of plates { crown 14 mm bottom - Description of longitudinal joint 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-washers inside & outside Working pressure by Rules -

Tube plates: Material { front Steel 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) x 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-washers inside & outside

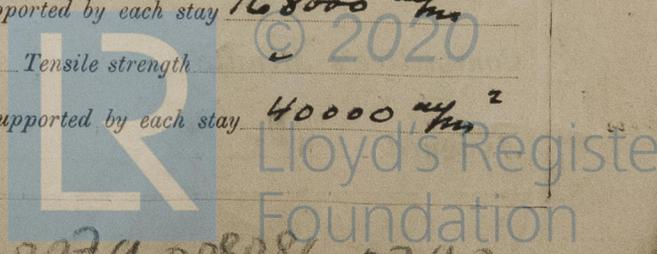
Working pressure by Rules - Front plate at bottom: Material Steel Tensile strength - Thickness 25 mm Lower back plate: Material Steel Tensile strength - Thickness 25 mm

Pitch of stays at wide water space D = 450 mm 370 on plate Are stays fitted with nuts or riveted over nuts-washers inside & outside

Working Pressure - Main stays: Material Steel Tensile strength -

Diameter { At body of stay, or 73 mm Over threads 78 mm No. of threads per inch 8 Area supported by each stay 168000 mm²

Working pressure by Rules - Screw stays: Material Steel Tensile strength - Diameter { At turned off part, or 35 mm Over threads - No. of threads per inch 11 Area supported by each stay 40000 mm²



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Working pressure by Rules - Arc the stays drilled at the outer ends *no* ✓ Margin stays: Diameter { At turned off part, or Over threads } *42* ✓
 No. of threads per inch *11* Area supported by each stay *old 56000 sq in* * Working pressure by Rules -
 Tubes: Material *Steel* External diameter { Plain *89* ✓ Stay *89* ✓ Thickness { *4* ✓ *8* ✓ No. of threads per inch *11* ✓
 Pitch of tubes *120 x 120* ✓ Working pressure by Rules - Manhole compensation: Size of opening in shell plate *400 x 500* Section of compensating ring *flange (24.5 x 240) x 2* No. of rivets and diameter of rivet holes *48 off 20* ✓
 Outer row rivet pitch at ends *150* ✓ Depth of flange if manhole flanged *70* ✓ 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* ✓ *2 1/2* ✓
 Material of headers *Steel* Tensile strength Thickness *20* ✓ 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* ✓ Are the safety valves fitted with casing gear *yes* ✓ Working pressure as per Rules - Pressure to which the safety valves are adjusted *13 kg/cm²* ✓ 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 1948*

Assigned *See minute on form 9.*

