

REPORT ON BOILERS.

No. 89758

Received at London Office 2 FEB 1933

- 1 FEB 1933

Date of writing Report 19 When handed in at Local Office 19 Port of NEWCASTLE-ON-TYNE

No. in Reg. Book. 61245 Survey held at Wallsend-on-Tyne Date, First Survey 23 Dec /32 Last Survey 27 Jan 19 33

on the Steamer S.S. Duquesa (Number of Visits) Tons { Gross Net

Master Built at Wallsend-on-Tyne By whom built Irvine & Co Ltd Yard No. 1785 When built 1915

Engines made at Wallsend-on-Tyne By whom made Richardson & Co Ltd Engine No. 1785 When made do

Boilers made at do By whom made do Boiler No. 1785 When made do

Nominal Horse Power 1046 Owners Messrs Harland & Wolff Ltd Port belonging to Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Fitting of Superheaters to Main Boilers. (Letter for Record)

Total Heating Surface of Boilers Is forced draught fitted Coal or Oil fired

No. and Description of Boilers Working Pressure

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

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler

Area of each set of valves per boiler { per Rule as fitted Pressure to which they are adjusted Are they fitted with easing gear

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 Is oil fuel carried in the double bottom under boilers

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

Largest internal dia. of boilers Length Shell plates: Material Tensile strength

Thickness Are the shell plates welded or flanged Description of riveting: circ. seams { end inter.

long. seams Diameter of rivet holes in { circ. seams long. seams Pitch of rivets {

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 inner No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Length of plain part { top bottom Thickness of plates { crown bottom Description of longitudinal joint

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

End plates in steam space: Material Tensile strength Thickness Pitch of stays

How are stays secured Working pressure by Rules

Tube plates: Material { front back Tensile strength { Thickness {

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

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

at centre Length as per Rule Distance apart No. and pitch of stays

in each Working pressure by Rules Combustion chamber plates: Material

Tensile strength Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

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

Thickness Lower back plate: Material Tensile strength Thickness

Pitch of stays at wide water space Are stays fitted with nuts or riveted over

Working Pressure Main 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

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Working pressure by Rules _____ Are the stays drilled at the outer ends _____ Margin stays: Diameter { At turned off part, or Over threads. _____
 No. of threads per inch _____ Area supported by each stay _____ Working pressure by Rules _____
 Tubes: Material _____ External diameter { Plain _____ Thickness { _____ No. of threads per inch _____
 Pitch of tubes _____ 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 _____ 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 _____ 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 *North Eastern Smelt-tubes* Manufacturers of { Tubes *Stewart & Lloyds*
 Number of elements *160* Material of tubes *Solid drawn steel* Steel castings *Gradingham Steel Coy.*
 Material of headers *Wrought steel* Tensile strength *26 to 30 tons* Thickness *1 1/2"* Internal diameter and thickness of tubes *15 mm x 2 1/2 mm thick*
 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 *3.1416* Are the safety valves fitted with easing gear *yes* Working pressure as per
 Rules *200 lbs.* Pressure to which the safety valves are adjusted *205 lbs.* Hydraulic test pressure:
 tubes *1500* *forgings* *600 lbs.* and after assembly in place *500 lbs.* 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 ☒

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - }
 while building { During erection on board vessel - - }

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

Total No. of visits

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.)

*Superheaters fitted to the five main boilers.
 Materials & workmanship good. Hydraulic tests satisfactory.
 Examined under steam & safety valves adjusted.*

Survey Fee ... £ *25* : - : -

Travelling Expenses (if any) £ : ✓ : -

When applied for, *1 FEB 1933*

When received, *11.2.1933*

William Butler

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 10 FEB 1933*

Assigned

See NWC. 89758 (Rpt. 9)



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