

REPORT ON BOILERS.

No. 49810

13 NOV 1929

Received at London Office

of writing Report 11-11-1929 When handed in at Local Office 11-11-1929 Port of Glasgow

in Survey held at Clydebank Date, First Survey 28.3.27 Last Survey 9.11.1929.

on the Twin Screw M. V. "Kangitane" (Number of Visits 181) Gross 16733 Tons Net 10311

Built at Clydebank By whom built John Brown & Co. Ltd. Yard No. 522 When built 1929

Engines made at Clydebank By whom made John Brown & Co. Ltd. Engine No. 522 When made 1929

Boilers made at Oldbury By whom made Edwin Danks Boiler No. 1 When made 1915

Horse Power Owners New Zealand S. Co. Port belonging to Plymouth.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Starting air receivers. 9-off (Letter for Record ✓)

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

and Description of Boilers Working Pressure 600 ✓

Tested by hydraulic pressure to 1000 Date of test See special certificates Can each boiler be worked separately ✓

No. of Firegrate in each Boiler No. and Description of safety valves to each boiler 1 - spring loaded

No. of each set of valves per boiler {per Rule as fitted} .196 Pressure to which they are adjusted 600 Are they fitted with easing gear no

Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓

Least distance between boilers or uptakes and bunkers or woodwork ✓ Is oil fuel carried in the double bottom under boilers ✓

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

Test internal dia. of boiler 4'-0" Length 15'-0" Shell plates: Material 8 Tensile strength 28-32

Thickness 1 1/8" Are the shell plates welded or flanged no Description of riveting: circ. seams end none inter. none

Seams T.R.D.B.S. Diameter of rivet holes in {circ. seams 1 3/16" long. seams 1 3/16" Pitch of rivets 7 1/2"

Percentage of strength of circ. end seams {plate 67 rivets 43} Percentage of strength of circ. intermediate seam {plate 84 rivets 101}

Percentage of strength of longitudinal joints {combined 678} Working pressure of shell by Rules 678

No. and Description of Furnaces in each Boiler

Tensile strength Smallest outside diameter

Thickness of plates {circ. end 1 1/8" longitudinal 1 1/8"}

Description of longitudinal joint

Working pressure of furnace by Rules

Plates in steam space: Material 8 Tensile strength 28-32 Thickness 1 1/8" Pitch of stays none

Are stays secured Radius 24 3/8" Working pressure by Rules 640

Plates: Material {front 8 back 8} Tensile strength {front 28-32 back 28-32} Thickness {front 1 1/8" back 1 1/8"}

Pitch of stay tubes in nests Pitch across main steam space Working pressure {front 640 back 640}

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

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

Working pressure by Rules Combustion chamber plates: Material

Thickness: Sides Back Top Bottom

Are stays fitted with nuts or riveted over

Front plate at bottom: Material Tensile strength

Lower back plate: Material Tensile strength Thickness

Are stays fitted with nuts or riveted over

Main stays: Material Tensile strength

At body of stay, or Over threads No. of threads per inch Area supported by each stay

Screw stays: Material Tensile strength

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 *11.9* Are the stays drilled at the outer ends *Yes* Margin stays: Diameter *1 1/2* { At turned off part, or Over threads

No. of threads per inch *11* Area supported by each stay *11.9* Working pressure by Rules *11.9*

Tubes: Material *11.9* External diameter *11.9* { Plain Stay Thickness *11.9* No. of threads per inch *11*

Pitch of tubes *11.9* Working pressure by Rules *11.9* Manhole compensation: Size of opening *11.9*

shell plate *11.9* Section of compensating ring *11.9* No. of rivets and diameter of rivet holes *11.9*

Outer row rivet pitch at ends *11.9* Depth of flange if manhole flanged *11.9* Steam Dome: Material *11.9*

Tensile strength *11.9* Thickness of shell *11.9* Description of longitudinal joint *11.9*

Diameter of rivet holes *11.9* Pitch of rivets *11.9* Percentage of strength of joint *11.9* { Plate Rivets

Internal diameter *11.9* Working pressure by Rules *11.9* Thickness of crown *11.9* No. and diam *11.9*

stays *11.9* Inner radius of crown *11.9* Working pressure by Rules *11.9*

How connected to shell *11.9* Size of doubling plate under dome *11.9* Diameter of rivet holes and *11.9*

of rivets in outer row in dome connection to shell *11.9*

Type of Superheater *11.9* Manufacturers of *11.9* { Tubes Steel castings

Number of elements *11.9* Material of tubes *11.9* Internal diameter and thickness of tubes *11.9*

Material of headers *11.9* Tensile strength *11.9* Thickness *11.9* as the superheater be shut *11.9*

the boiler be worked separately *11.9* Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *11.9*

Area of each safety valve *11.9* Are the safety valves fitted with easing gear *11.9* Working pressure *11.9*

Rules *11.9* Pressure to which the safety valves are adjusted *11.9* Hydraulic test pressure *11.9*

tubes *11.9* and after assembly in place *11.9* Are drain cocks or valves *11.9*

to free the superheater from water where necessary *11.9*

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *11.9*

The foregoing is a correct description, *11.9*

Dates of Survey *11.9* { During progress of work in shops - - - } Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) *11.9*

while building *11.9* { During erection on board vessel - - - } See Accompanying machy. Report *11.9* Total No. of visits *11.9*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These air receivers were built in 1915 by Edwin Danks & Co. Ltd. Oldbury to the order of the British Admiralty, and under their supervision. The scantlings have been checked and found in accordance with the approved plan, they have been examined externally and internally and found in good condition. They have been tested by hydraulic pressure to 1000 lbs per sq ins. showed signs of weakness, and were found tight and sound in every respect at that Pressure. They have been securely fitted on board, and their safety valves adjusted.*

Survey Fee	...	£	:	:	When applied for,	192
Travelling Expenses (if any)	£	:	:	:	When received,	192

Jas Cairns
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 12 NOV 1929

Assigned See Accompanying machy. Report