

REPORT ON BOILERS.

No. 19303.

Date of writing Report 15. 1. 30

Received at London Office

When handed in at Local Office 6th MARCH 1931

Port of Greenock

No. in Survey held at Reg. Book.

Greenock

Date, First Survey 18th APRIL 1930 Last Survey 5th MARCH 1931

on the

S/S "British Resource"

(Number of Visits ✓)

Gross 208.54
Tons Net 119.10

Master Built at Greenock By whom built Greenock Dockyard & Co. Ltd. Yard No. 421 When built 1931
 Engines made at Greenock By whom made John & Threacold & Co. Ltd. Engine No. 1763 When made 1931
 Boilers made at ditto By whom made ditto Boiler No. 1763 When made 1931
 Nominal Horse Power Owners British Tankers Ltd. Port belonging to London

MULTITUBULAR BOILERS AUXILIARY.

Manufacturers of Steel Messrs. Wm. & A. R. Inglis & Co. Ltd. Glasgow (Letter for Record S)

Total Heating Surface of Boilers 2244 sq. ft. Is forced draught fitted Yes Oil fired Oil

No. and Description of Boilers One Single Ended Working Pressure 150

Tested by hydraulic pressure to 275 Date of test 13.12.30 No. of Certificate 1996 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 13.6 sq. ft. No. and Description of safety valves to each boiler 2 Cockburn (Double) High Lift

Area of each set of valves per boiler as fitted 14.1375 Pressure to which they are adjusted 155 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 1'-6" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 1'-6" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 12'-11 1/8" Length 11'-6" Shell plates: Material S Tensile strength 29.33

Thickness 7/8" Are the shell plates welded or flanged Yes Description of riveting: circ. seams end DR

long, seams TR.D.B.S. Diameter of rivet holes in circ. seams 1 1/16" Pitch of rivets 2.883

Percentage of strength of circ. end seams plate 67.4 rivets 43.4 Percentage of strength of circ. intermediate seam plate 86.1 rivets 86.6

Percentage of strength of longitudinal joint plate 86.6 rivets 89.52 Working pressure of shell by Rules 152

Thickness of butt straps outer 2 1/32 inner 2 1/32 No. and Description of Furnaces in each Boiler 2 Single

Material S Tensile strength 26.30 Smallest outside diameter 3'-2 7/8"

Length of plain part top 7 1/16" Thickness of plates crown 3 7/16" bottom Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 161

End plates in steam space: Material S Tensile strength 26.30 Thickness 1 1/16" Pitch of stays 20" x 16 1/2"

How are stays secured D.N. Washers Working pressure by Rules 155

Tube plates: Material front S back S Tensile strength 26.30 Thickness 1 1/16"

Mean pitch of stay tubes in nests 10 Pitch across wide water spaces 13 3/4" Working pressure front 173 back 167

Girders to combustion chamber tops: Material S Tensile strength 29.33 Depth and thickness of girder

at centre 8 x 3/4 (2) Length as per Rule 2.6" x 8 Distance apart 9 3/4" No. and pitch of stays

in each 3 at 4 1/4" Working pressure by Rules 140 Combustion chamber plates: Material S

Tensile strength 26.30 Thickness: Sides 1 1/16" Back 3/4" Top 1 1/16" Bottom 1 1/16"

Pitch of stays to ditto: Sides 9 1/4" x 7 1/4" Back 9 x 8 Top 4 1/4" x 9 3/4" Are stays fitted with nuts or riveted over Riveted

Working pressure by Rules 160 Front plate at bottom: Material S Tensile strength 26.30

Thickness 29/32 Lower back plate: Material S Tensile strength 26.30 Thickness 29/32

Pitch of stays at wide water space 14" Are stays fitted with nuts or riveted over Riveted & nuts

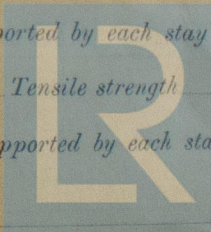
Working Pressure 156 Main stays: Material S Tensile strength 28.32

Diameter At body of stay, or Over threads 2 5/8 No. of threads per inch 6 Area supported by each stay 330

Working pressure by Rules 150 Screw stays: Material S Tensile strength 26.30

Diameter At turned off part, or Over threads 1 1/2 No. of threads per inch 9 Area supported by each stay 72

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Working pressure by Rules ¹⁴⁴ Are the stays drilled at the outer ends ⁸⁷⁰ Margin stays: Diameter ^{19 1/4"} { At turned off part, or Over threads

No. of threads per inch ⁹ Area supported by each stay ^{110 sq"} Working pressure by Rules ¹⁶⁴

Tubes: Material ^{iron} External diameter { Plain ^{23 1/4} Stay ^{23 1/4} Thickness ^{10 W.G.} { 1 1/4" 7/16" No. of threads per inch ⁹

Pitch of tubes ^{4" x 4"} Working pressure by Rules ¹⁶⁹ Manhole compensation: Size of opening in shell plate ^{16" x 20"} Section of compensating ring ^{2' 9" x 2' 5" x 1"} No. of rivets and diameter of rivet holes ^{38 at 1 1/8"}

Outer row rivet pitch at ends ^{8"} Depth of flange if manhole flanged ^{3 1/2"} 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 Manufacturers of { Tubes Steel castings

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

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

Area of each safety valve Are the safety valves fitted with easing gear Working pressure as per Rules Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes castings and after assembly in place Are drain cocks or valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with ^{yes}

The foregoing is a correct description,
For JOHN G. KINCAID & CO. LIMITED. Director. Manufacturer.

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

SEE MACHINERY REPORT.

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

Total No. of visits ¹

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This Boiler has been built under Special Survey in accordance with the approved plans & its workmanship & material are of good quality. It is now securely fitted on board.

This Report accompanies that of the Machinery (Boiler duplicate of 1162 S/S "British Pride" Genl Rpt. No. 19294)

Charged on Machinery Report

When applied for, 192
When received, 192

W. Gordon Maclellan

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 10 MAR 1931

Assigned SEE ACCOMPANYING MACHINERY REPORT.



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