

REPORT ON BOILERS.

No. 60852

Received at London Office

Date of writing Report 20th March 1939 When handed in at Local Office 27.3.39 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 25.5.38 Last Survey 14th March 1939

Reg. Book. 840 on the Single Screw Steamer Vessel BRITAMER (Number of Visits 29) Gross 9945.74 Tons Net 5931.62

Master Glasgow Built at Glasgow By whom built B Barclay Curle & Co Ltd Yard No. 670 When built 1939-3rd

Engines made at Glasgow By whom made B Barclay Curle & Co Ltd Engine No. 670 When made 1939-3rd

Boilers made at Glasgow By whom made B Barclay Curle & Co Ltd Boiler No. 670 When made 1939

Nominal Horse Power 314 Owners Messrs Hall & Peterson Port belonging to Osh.

MULTITUBULAR BOILERS ~~MAIN~~, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvile & Co (Letter for Record S)

Total Heating Surface of Boilers 5712 Is forced draught fitted ✓ Coal or Oil fired Oil & Exhaust

No. and Description of Boilers 2 - oil fired & Exhaust H.T. Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lbs Date of test 27.12.38 No. of Certificate 20320 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler one - 2 1/4" double spring high lift

Area of each set of valves per boiler {per Rule 18.25 as fitted 11.88 (approx) Pressure to which they are adjusted 180 lb 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 well clear Is oil fuel carried in the double bottom under boilers ✓

Smallest distance between shell of boiler and flat tank top plating 12" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 14' - 6 1/16" Length 11' - 6" Shell plates: Material Steel Tensile strength 29/33

Thickness 15/32" Are the shell plates welded or flanged No Description of riveting: circ. seams {end D. R. Lap inter: 3.45" Pitch of rivets { 8 9/16"

long. seams T. R. D. B. S. Diameter of rivet holes in {circ. seams 1 1/4" long. seams ✓

Percentage of strength of circ. end seams {plate 63.7 rivets 48.7 Percentage of strength of circ. intermediate seam {plate ✓ rivets 85.4

Percentage of strength of longitudinal joint {plate 92.0 rivets 89.0 Working pressure of shell by Rules 180 lbs

Thickness of butt straps {outer 7/8" inner 1" No. and Description of Furnaces in each Boiler Two - Deighton

Material Steel Tensile strength 26/30 Smallest outside diameter 42 1/4"

Length of plain part {top ✓ bottom ✓ Thickness of plates {crown 17/32" bottom 17/32" Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 182 lbs

End plates in steam space: Material Steel Tensile strength 26/30 Thickness 17/32" Pitch of stays 19" x 20"

How are stays secured Double Nuts Working pressure by Rules 182 lbs

Tube plates: Material {front Steel back Steel Tensile strength { 26/30 Thickness { 13/16" 11/16"

Mean pitch of stay tubes in nests 9.375" Pitch across wide water spaces 13 1/8" Working pressure {front 228 lbs back 190

Girders to combustion chamber tops: Material Steel Tensile strength 28/32 Depth and thickness of girder

at centre 9 1/2" x 22 1/16" Length as per Rule 34 2 1/2" Distance apart 9 1/8" No. and pitch of stays

in each 329" Working pressure by Rules 181 lbs Combustion chamber plates: Material Steel

Tensile strength 26/30 Thickness: Sides 2 1/32" Back 2 1/32" Top 2 1/32" Bottom 2 1/32"

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

Working pressure by Rules 182 lbs Front plate at bottom: Material Steel Tensile strength 26/30

Thickness 13/16" Lower back plate: Material Steel Tensile strength 26/30 Thickness 3/4"

Pitch of stays at wide water space 13 1/8" x 8 7/8" Are stays fitted with nuts or riveted over yes

Working Pressure 192 lbs Main stays: Material Steel Tensile strength 28/32

Diameter {At body of stay 3 7/8" No. of threads per inch 6 Area supported by each stay 380 sq inch

Working pressure by Rules 194 lbs Screw stays: Material Steel Tensile strength 26/30

Diameter {At turned off part 1 5/8" No. of threads per inch 9 Area supported by each stay 82.07

Working pressure by Rules 184 lbs. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part... or Over threads 1 3/4"

No. of threads per inch 9 Area supported by each stay 99.3 sq in Working pressure by Rules 183 lbs.

Tubes: Material Steel External diameter { Plain 2 1/2" + 1 3/4" Stay 2 1/2" Thickness { 9 + 11 L. 56 7/16" + 7/8" No. of threads per inch 9

Pitch of tubes 3 1/4" x 3 1/4" + 2 3/4" x 2 7/8" Working pressure by Rules 230 lbs. Manhole compensation: Size of opening in shell plate 16 1/2" x 20 1/2" Section of compensating ring 21" x 1 7/32" No. of rivets and diameter of rivet holes 48 2 1/4"

Outer row rivet pitch at ends 8 9/16" Depth of flange if manhole flanged 4" Nil Steam Dome: Material Nil

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

Nil

Manufacturers of

Tubes

Steel forgings

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

forgings and 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 22 inclusive for boilers been complied with

Yes

The foregoing is a correct description,

Alexander Macnail

Manufacturer

Dates of Survey while building

During progress of work in shops - - - During erection on board vessel - - -

1938 May: 25 June: 6, 13, 17 July: 5, 29

Aug: 2, 5 Sep: 7, 13, 20, 22, 29 Oct: 6, 11, 18, 20, 25, 27

Nov: 1, 11, 17, 18, 28 Dec: 5, 9, 23, 27

1939 Mar: 14

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

Yes

Chief Draughtsman

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.)

These boilers have been built under special survey in accordance with the Rules of this Society & approved plan.

The materials and workmanship are good.

The boilers have been satisfactorily fitted on board and the safety valves adjusted under steam to 180 lbs.

906

27/3/39.

Survey Fee

£ 28

: 4

: -

When applied for,

28 MAR 1939

Travelling Expenses (if any) £

:

:

When received,

29 4 1939

S. H. Macdonald

Engineer Surveyor to Lloyd's Register of Shipping.

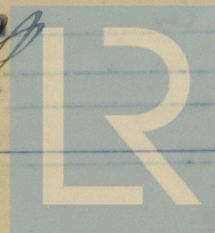
Committee's Minute

GLASGOW

28 MAR 1939

Assigned

SEE ACCOMPANYING MACHINERY REPORT



Lloyd's Register
Foundation