

Rpt. 5a.

REPORT ON BOILERS.

No. 17035

Received at London Office -2 MAY 1931

Date of writing Report 18.4.31 19 When handed in at Local Office 19 Port of

No. in Reg. Book. Survey held at Hartlepool Date, First Survey Last Survey 19

Supp 89708 on the M.V. "BRITISH STRENGTH" (Number of Visits) Tons {Gross Net

Master Built at Newcastle By whom built Palmers S.B. & J.C.B. Yard No. 1005 When built 1931
Engines made at Hartlepool By whom made Richardsons Westgarth & Co. L Engine No. 2676 When made 1931
Boilers made at ditto By whom made ditto Boiler No. 2676 When made 1931
Nominal Horse Power 127. Owners British Tanker Co. Ltd Port belonging to London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland (Letter for Record S)
Total Heating Surface of Boilers 1094 sq. ft. oil burning Is forced draught fitted yes Coal or Oil fired oil & exhaust gas.
No. and Description of Boilers One single ended Working Pressure 150 lb.
Tested by hydraulic pressure to 275 lb. Date of test 28.11.30 No. of Certificate 3789 Can each boiler be worked separately yes
Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 2 direct spring enclosed.
Area of each set of valves per boiler {per Rule 17.3 sq. in. as fitted 16.58 sq. in. Pressure to which they are adjusted 155 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 ✓ Is oil fuel carried in the double bottom under boilers no
Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated ✓
Largest internal dia. of boilers 12'-4 3/16" Length 11'-6" Shell plates: Material Steel Tensile strength 28/32
Thickness 29/32 Are the shell plates welded or flanged no Description of riveting: circ. seams {end D.R. lab. inter. ✓
long. seams D.R. D.B.S. Diameter of rivet holes in {circ. seams 1 1/32" long. seams 1 1/16" Pitch of rivets {3 1/4" 5 9/16" in row 2 25/32" in row
Percentage of strength of circ. end seams {plate 68.3. rivets 46.6 Percentage of strength of circ. intermediate seam {plate 80.9 rivets 81.5. combined 89.3 Working pressure of shell by Rules 150 lb.
Thickness of butt straps {outer 3/4" inner 5/8" No. and Description of Furnaces in each Boiler 2 Deightons
Material Steel Tensile strength 26/30 Smallest outside diameter 32 1/4"
Length of plain part {top ✓ Thickness of plates {crown 3/8" bottom 3/8" Description of longitudinal joint welded
Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 163 lb.
End plates in steam space: Material Steel Tensile strength 26/30 Thickness 1" Pitch of stays 16 1/4" x 18"
How are stays secured Double nuts Working pressure by Rules 157 lb.
Tube plates: Material {front Steel back Steel Tensile strength 26/30 Thickness {3 1/32" 1 1/16"
Mean pitch of stay tubes in nests 10 5/16" x 9" Pitch across wide water spaces 13 7/8" x 8 3/4" Working pressure {front 160 lb. back 159 x 173 lb.
Girders to combustion chamber tops: Material Steel Tensile strength 26/30 Depth and thickness of girder
at centre 7 1/4" x 1 5/8" Length as per Rule 29 13/32" Distance apart 9 1/4" No. and pitch of stays
in each 3 7" Working pressure by Rules 154 lb. Combustion chamber plates: Material Steel
Tensile strength 26/30 Thickness: Sides 9/16" Back 19/32" Top 9/16" Bottom 9/16"
Pitch of stays to ditto: Sides 8 1/4" x 8 3/4" Back 8 1/2" x 9 1/4" Top 7" x 9 1/4" Are stays fitted with nuts or riveted over nuts
Working pressure by Rules 153 lb. Front plate at bottom: Material Steel Tensile strength 26/30
Thickness 27/32 Lower back plate: Material Steel Tensile strength 26/30 Thickness 3/4"
Pitch of stays at wide water space 13 1/2" x 8 1/2" Are stays fitted with nuts or riveted over nuts
Working Pressure 179 lb. Main stays: Material Steel Tensile strength 28/32
Diameter {At body of stays 2 1/2" x 2 3/8" No. of threads per inch 6 Area supported by each stay 16 1/4" x 8" x 15 3/8" x 18"
Over threads 151 lb. Screw stays: Material Steel Tensile strength 26/30
Diameter {At turned off part 1 1/2" No. of threads per inch 9 Area supported by each stay 8 1/2" x 9 1/4"



Working pressure by Rules 159 lb Are the stays drilled at the outer ends no Margin stays: Diameter { At turn off part, ✓
Over threads 1 5/8"
No. of threads per inch 9 Area supported by each stay 8 1/2" x 11 3/8" Working pressure by Rules 157 lb
Tubes: Material Iron External diameter { Plain 2 1/2" wings 3 1/2" centre { 10 WG W.P.W.C.C. No. of threads per inch
Stay 2 1/2" - 3 1/2" Thickness 1/4" 5/16" 7/16" wings { 5/16" 3/8" centre
Pitch of tubes 3 3/4" x 3 3/4" W. 4 3/8" x 4 1/2" C. Working pressure by Rules 175 P. 151 S. Manhole compensation: Size of opening in
shell plate 16 1/4" x 20 1/4" Section of compensating ring 19" x 1" No. of rivets and diameter of rivet holes 36 1 1/2"
Outer row rivet pitch at ends 5 9/16" Depth of flange if manhole flanged ✓ Steam Dome: Material none
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 none 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 22 inclusive for boilers been complied with yes.

The foregoing is a correct description.
For RICHARDSONS, WESTGARTH & Co. LIMITED.
W. B. Downing Manufacturer.
LOCAL DIRECTOR

Dates of Survey { During progress of work in shops - - See Machy rph Are the approved plans of boiler and superheater forwarded herewith
while building { During erection on board vessel - - -
Total No. of visits _____

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.)

See accompanying machinery report

Survey Fee ... £ 12.14.0 When applied for, 19
Travelling Expenses (if any) £ See Machy rph When received, 19

R. D. Shilston

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 8 MAY 1911

Assigned

See F.B. Rpt.



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