

REPORT ON BOILERS.

No. 17035

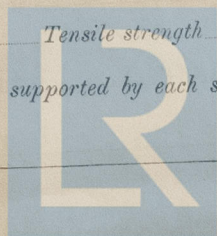
Received at London Office -2 MAY 1931

Date of writing Report 18.4.31 19 When handed in at Local Office 10 Port of

No. in Reg. Book. Survey held at Hartlepool Date, First Survey Last Survey 19
 Supp. 89408 on the M.V. "BRITISH STRENGTH" (Number of Visits) Gross Tons Net
 Master Built at Newcastle By whom built Palmer's S.B. & L. Co. Ltd. Yard No. 1005 When built 1931
 Engines made at Hartlepool By whom made Richardsons Westgarth & Co. Ltd. Engine No. 2676 When made 1931
 Boilers made at ditto By whom made ditto Boiler No. 2676 When made 1931
 Nominal Horse Power 108 Owners British Tanker Co. Ltd. Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel The Steel Company of Scotland (Letter for Record S)
 Total Heating Surface of Boilers 1617 sq. ft. Is forced draught fitted yes Coal or Oil fired oil
 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 marine type
 Area of each set of valves per boiler {per Rule 14.75" as fitted 16.587" 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 11'-4 5/16" Length 11'-6" Shell plates: Material Steel Tensile strength 28/32
 Thickness 27/32" Are the shell plates welded or flanged no Description of riveting: circ. seams {end DR lap inter ✓
 long. seams DR D.B.S. Diameter of rivet holes in {circ. seams 1 1/32" long. seams 1 1/32" Pitch of rivets {circ. seams 5 5/8" row 2 1/16" row 1 row
 Percentage of strength of circ. end seams {plate 68.3 rivets 50.1 Percentage of strength of circ. intermediate seam {plate ✓ rivets ✓
 Percentage of strength of longitudinal joint {plate 81.6 rivets 81.3 combined 90.6 Working pressure of shell by Rules 152 lb
 Thickness of butt straps {outer 1 1/16" inner 7/16" No. and Description of Furnaces in each Boiler 2 Deightons
 Material Steel Tensile strength 26/30 Smallest outside diameter 37 3/8"
 Length of plain part {top ✓ bottom ✓ Thickness of plates {crown 7/16" bottom 1/16" Description of longitudinal joint Welded
 Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 167 lbs
 End plates in steam space: Material Steel Tensile strength 26/30 Thickness 1 1/32" Pitch of stays 21 1/2" x 13 3/4"
 How are stays secured Double nuts Working pressure by Rules 151 lb
 Tube plates: Material {front Steel back Steel Tensile strength {26/30 Thickness {13/16" 1/16"
 Mean pitch of stay tubes in nests 11 1/4" x 7 1/4" Pitch across wide water spaces 13 1/2" Working pressure {front 167 lb back 195 lbs
 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 Working pressure by Rules 154 lbs Combustion chamber plates: Material Steel
 Tensile strength 26/30 Thickness: Sides 7/16" Back 19/32" Top 9/16" Bottom 9/16"
 Pitch of stays to ditto: Sides 7" x 9 1/4" Back 8" x 9 1/2" Top 7" x 9 1/4" Are stays fitted with nuts or riveted over nuts
 Working pressure by Rules 161 lb 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 1/2" x 8" Are stays fitted with nuts or riveted over nuts
 Working Pressure 184 lb Main stays: Material Steel Tensile strength 28/32
 Diameter {At body of stay, 2 1/2" x 2 5/8" No. of threads per inch 6 Area supported by each stay 14 1/2" x 21 1/2"
 {Over threads 159 lb Screw stays: Material Steel Tensile strength 26/30
 Working pressure by Rules 159 lb No. of threads per inch 9 Area supported by each stay 9 1/2" x 8"
 Diameter {At turned off part, 1 1/2" {Over threads 1 1/2"



Working pressure by Rules 165 lb Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 1/2" Over threads 1 1/8"

No. of threads per inch 9 Area supported by each stay 8" x 1 1/2" Working pressure by Rules 165 lb

Tubes: Material Iron External diameter { Plain 2 1/2" Stay 2 1/2" Thickness { 10 W.G. 4" 5" 3" No. of threads per inch 9

Pitch of tubes 3 5/8" x 3 3/4" Working pressure by Rules 175 lb 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 /

Area of each safety valve / Is a safety valve fitted to every part of the superheater which can be shut off from the boiler /

Rules / Are the safety valves fitted with easing gear / Working pressure as per tubes / Pressure to which the safety valves are adjusted / Hydraulic test pressure: 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, M. E. Jennings Manufacturer.

Dates of Survey { During progress of work in shops - - See Machy rph Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) /

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 ... £ 10.16 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. E. Rpl.



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