

REPORT ON BOILERS.

No. 20281.

Received at London Office

16 DEC 1936

Date of writing Report 26.10.1936 When handed in at Local Office 10th Dec. 1936. Port of Greenock

No. in Surveys held at Greenock Date, First Survey 19th December 1935 Last Survey 9th December 1936

on the M/S "British Triumph" (Number of Visits) Tons { Gross 8402.11. Net 5004.91.

Master J.M. Built at P. Glasgow By whom built Lithgous & Co Yard No. 886 When built 1936

Engines made at Greenock By whom made Jones & Treweek & Co Engine No. 1794 When made 1936

Boilers made at ditto By whom made ditto Boiler No. 1794 When made 1936

Owners British Tanker Co Port belonging to London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Belville & Cargo Steel Works (Letter for Record S)

Total Heating Surface of Boilers 1494 # Is forced draught fitted Yes Coal or Oil fired Oil

Description of Boilers one single ended Working Pressure 150

Tested by hydraulic pressure to 275 Date of test 14-6-36 No. of Certificate 2060 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler Bel. Fuel No. and Description of safety valves to each boiler Boehlers High Lift

Area of each set of valves per boiler (per Rule 5.64 as fitted 6.283) 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 Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 1-8" Is oil fuel carried in the double bottom under boilers No

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

Largest internal dia. of boilers 11-4 7/16" Length 11-6" Shell plates: Material S Tensile strength 29.33

Thickness 2 5/32" Are the shell plates welded or flanged Yes Description of riveting: circ. seams { end DR inter. — }

g. seams TR & DBS Diameter of rivet holes in { circ. seams 15/16" long. seams 24/32" } Pitch of rivets { 3" 0/8" 6" 5/32" }

Percentage of strength of circ. end seams { plate 69.5 rivets 45-50 } Percentage of strength of circ. intermediate seam { plate 86-2 rivets 86-5 }

Percentage of strength of longitudinal joint { plate 86-2 rivets 86-5 combined 89.4 } Working pressure of shell by Rules 153

Thickness of butt straps { outer 5/8" inner 3/4" } No. and Description of Furnaces in each Boiler 2 Drightrous

Material S Tensile strength 26-30 Smallest outside diameter 2-11 7/8"

Length of plain part { top 7 1/16" bottom 7 1/16" } Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom Yes Working pressure of furnace by Rules 174

End plates in steam space: Material S Tensile strength 26-30 Thickness 15/16" Pitch of stays 16 1/15"

How are stays secured DN + Washers Working pressure by Rules 164 7/8

End plates: Material { front S back S } Tensile strength 26-30 Thickness { 11/16" }

Can pitch of stay tubes in nests 9 3/15" Pitch across wide water spaces 13 1/2" Working pressure { front 194 back 182 }

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

centre 8 1/4" x 3 1/4" (2) Length as per Rule 34 5/8" Distance apart 8 3/8" No. and pitch of stays

each 3 at 8 3/4" Working pressure by Rules 169 Combustion chamber plates: Material S

Tensile strength 26-30 Thickness: Sides 5/8" Back 11/16" Top 5/8" Bottom 11/16"

Pitch of stays to ditto: Sides 8 3/4" x 8" Back 8" x 8 1/4" Top 8 3/4" x 8 3/8" Are stays fitted with nuts or riveted over Rivets & Nuts

Working pressure by Rules 151 Front plate at bottom: Material S Tensile strength 26-30

Thickness 7/8" Lower back plate: Material S Tensile strength 26-30 Thickness 7/8"

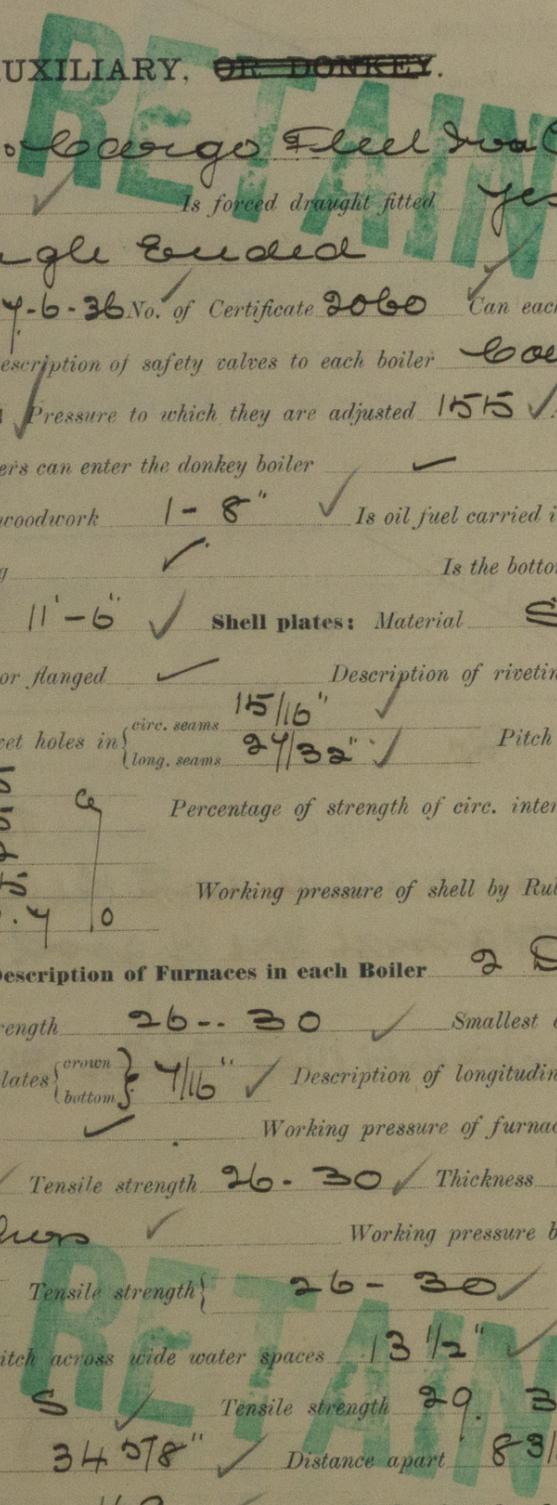
Pitch of stays at wide water space 14" Are stays fitted with nuts or riveted over Nuts

Working Pressure 154 Main stays: Material S Tensile strength 28-32

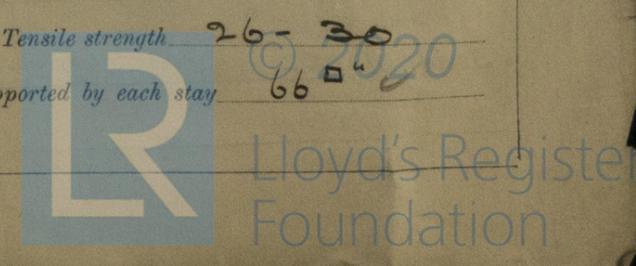
Diameter { At body of stay, 2 1/4" or Over threads — } No. of threads per inch 6 Area supported by each stay 240"

Working pressure by Rules 149 Screw stays: Material S Tensile strength 26-30

Diameter { At turned off part, 1 3/8" 1 1/2" or Over threads — } No. of threads per inch 6 Area supported by each stay 66"



130
25
50
274



W438-0190

Working pressure by Rules 153 ✓ Are the stays drilled at the outer ends 80 ✓ Margin stays: Diameter ^{At turn-d off part,} 1 5/8" ✓
 No. of threads per inch 9 Area supported by each stay 90 3/4" ✓ Working pressure by Rules 166
 Tubes: Material Iron External diameter ^{Plain} 2 1/2" ✓ Thickness ^{10WG} 1/4 5/16" ✓ No. of threads per inch 9 ✓
 Pitch of tubes 33 1/4" x 33 1/4" ✓ Working pressure by Rules 173 ✓ Manhole compensation: Size of opening in
 shell plate 16 x 20" Section of compensating ring 2-8 1/2" x 2 1/2" x 1 1/8" ✓ No. of rivets and diameter of rivet holes 35 ad-1 1/8" ✓
 Outer row rivet pitch at ends 8 ✓ Depth of flange if manhole flanged 3 1/4" ✓ 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 22 inclusive for boilers been complied with

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

Dates of Survey ^{During progress of} work in shops - - -
 while ^{During erection on} board vessel - - -
 building SEE MACHINERY REPORT. Are the approved plans of boiler and superheater forwarded herewith *yes*
 (If not state date of approval.) 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.) This boiler has been built under
 Special Survey in accordance with the approved plans & the
 workmanship & material are of good quality. It is now securely
 fitted on board.
 This Report is submitted that of the Machinery

Survey Fee *£100* When applied for, 19
 Travelling Expenses (if any) *£100* When received, 19
 W. Carter London, Newcastle
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 15 DEC 1936
 Assigned SEE ACCOMPANYING MACHINERY REPORT.

