

# REPORT ON BOILERS.

Sld. No. 29528

Received at London Office 11 OCT 1927

Date of writing Report 1927 When handed in at Local Office 10 OCT. 1927 Port of Sunderland.

No. in Surrey held at Sunderland. Date, First Survey 6 Oct 1927 Last Survey 6 Oct 1927

on the S.S "LADY OLGA" (Number of Visits ) (Gross 1266 Tons) (Net 583 Tons)

Master Built at Sunderland. By whom built S.P. Austin & Sons Ltd. Yard No. 312 When built 1927

Engines made at Sunderland By whom made Geoff. Hawk Ltd. Engine No. 1153 When made 1927

Boilers made at do By whom made do Boiler No. 1153 When made 1927

Nominal Horse Power 156 Owners Gas Light & Coke Co Port belonging to London.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel David Colville & Sons Ltd. (Letter for Record S.)

Total Heating Surface of Boilers 2490 sq. ft. Is forced draught fitted No Coal or Oil fired Coal.

No. and Description of Boilers One S.E. Mull Working Pressure 180.

Tested by hydraulic pressure to 320 Date of test 12/8/27 No. of Certificate 3950 Can each boiler be worked separately —

Area of Firegrate in each Boiler 75 sq. ft. No. and Description of safety valves to each boiler 2 @ 3 1/2"

Area of each set of valves per boiler { per Rule 15.8 sq. ft. as fitted 16.58 sq. ft. Pressure to which they are adjusted 185 Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No

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 2-1/2" Is the bottom of the boiler insulated No.

Largest internal dia. of boilers 16-6" Length 10-6" Shell plates: Material Steel Tensile strength 28-32 TONS

Thickness 1 1/4" Are the shell plates welded or flanged No Description of riveting: circ. seams { end T.R.L inter. — }  
long. seams T.R. J.B.S. Diameter of rivet holes in { circ. seams 1 1/4" & 1 3/8" Pitch of rivets { 3 3/8" & 4 1/8" }  
{ long. seams 1 3/8" } { 9.59" }

Percentage of strength of circ. end seams { plate 65 rivets 42.3 } Percentage of strength of circ. intermediate seam { plate — rivets — }

Percentage of strength of longitudinal joint { plate 85.63 rivets 89.6 combined 87.8 } Working pressure of shell by Rules 180

Thickness of butt straps { outer 1" inner 1 1/8" } No. and Description of Furnaces in each Boiler 4 Feighten

Material Steel Tensile strength 26 to 30 TONS. Smallest outside diameter 3-3 3/4"

Length of plain part { top — bottom — } Thickness of plates { crown 3 1/2" bottom 3 1/2" } Description of longitudinal joint Welded.

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 181.

End plates in steam space: Material Steel Tensile strength 26 to 30 TONS Thickness 1 3/8" Pitch of stays 19 1/4" x 24 1/2"

How are stays secured D.N.Y.W. Working pressure by Rules 183 lbs.

Tube plates: Material { front Steel back Steel } Tensile strength { 26 to 30 TONS } Thickness { 1 3/8" }  
{ 1 3/4" }

Mean pitch of stay tubes in nests 10 1/4" Pitch across wide water spaces 14 1/4" Working pressure { front 226 back 191. }

Girders to combustion chamber tops: Material Steel. Tensile strength 28 to 32 TONS Depth and thickness of girder at centre 7 1/8" x 1 3/4" Length as per Rule 32" Distance apart 10" No. and pitch of stays in each 2 @ 10" Working pressure by Rules 182 lbs. Combustion chamber plates: Material Steel.

Tensile strength 26 to 30 TONS Thickness: Sides 23" Back 11" Top 23" Bottom 23"  
{ 32" } { 32" }

Pitch of stays to ditto: Sides 10" x 10" Back 10 1/8" x 8 7/8" Top 10" x 10" Are stays fitted with nuts or riveted over NUTS.

Working pressure by Rules 180 Front plate at bottom: Material Steel Tensile strength 26 to 30 TONS

Thickness 1 3/8" Lower back plate: Material Steel. Tensile strength 26 to 30 TONS Thickness 1 5/8"

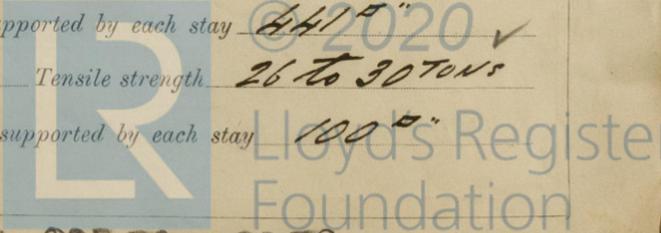
Pitch of stays at wide water space 16" x 8 7/8" Are stays fitted with nuts or riveted over NUTS

Working Pressure 216 Main stays: Material Steel Tensile strength 28 to 32 TONS

Diameter { At body of stay, 3 1/2" & 3" or — } No. of threads per inch 6 Area supported by each stay 441 sq. in.  
{ Over threads — }

Working pressure by Rules 192 lbs. Screw stays: Material Steel Tensile strength 26 to 30 TONS

Diameter { At turned off part, 1 3/4" or — } No. of threads per inch 9 Area supported by each stay 100 sq. in.  
{ Over threads — }



Working pressure by Rules 185 lbs Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 1 7/8 ✓  
 No. of threads per inch 9 ✓ Area supported by each stay 116" Working pressure by Rules 185 lbs ✓  
 Tubes: Material Steel External diameter { Plain 3 1/2 ✓ Thickness { 8 W.G. ✓ No. of threads per inch 9 ✓  
 Pitch of tubes 4 1/2" & 4 3/8" ✓ Working pressure by Rules 191 lbs ✓ Manhole compensation: Size of opening in ENR plate 12" x 16" ✓ Section of compensating ring FLANGED ✓ No. of rivets and diameter of rivet holes ✓  
 Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 4 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 GEORGE CLARK LIMITED**  
 Wagoner Manufacturer.

Dates of Survey { During progress of work in shops - - } Please see Mech. Rpt. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
 { During erection on board vessel - - - } Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey & the materials & workmanship are good. The boiler has been satisfactorily fitted in the vessel & the safety valves adjusted under steam as stated in the report. For recommendation regarding notation see machinery report.

Survey Fee ... .. £ : ✓ : When applied for, 192  
 Travelling Expenses (if any) £ : ✓ : When received, 192

Garbott  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 14 OCT 1927

Assigned See minute on Sld Rpt  
29528 attached



Date of ...  
 No. ...  
 Reg. ...  
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 (The Surveyors are requested not to write on or below the space for Committee's Minute.)