

# REPORT ON BOILERS.

No. 439.

Received at London Office 15 JUN 1933

Date of writing Report June 13<sup>th</sup> 1933 When handed in at Local Office June 13<sup>th</sup> 1933 Port of Sheffield

No. in Reg. Book 52487 Survey held at Bradley Heath Date, First Survey May 24<sup>th</sup> 1933 Last Survey June 12<sup>th</sup> 1933  
(Number of Visits 3)

on the New Vertical Cross tube boiler for S/V. "Olivebank" Tons Gross 2795 Net 2427

Built at Glasgow By whom built Wackie & Houson Yard No.  When built 1892

Engines made at  By whom made  Engine No.  When made

Boiler made at Bradley Heath By whom made W<sup>m</sup> The Bradley Boiler Co<sup>l</sup> Ltd Boiler No. 19874 When made 1933

Owners G. Erikson Port belonging to Marichamu

## VERTICAL DONKEY BOILER.

Made at Bradley Heath By whom made Bradley Boiler Co<sup>l</sup> Ltd Boiler No. 19874 When made 1933 Where fixed

Manufacturers of Steel W<sup>m</sup> The British (Guest Keen & Baldwin's) Iron & Steel Co<sup>l</sup> Ltd. Port Talbot.

Total Heating Surface of Boiler 108 sq ft Is forced draught fitted  Coal or Oil fired Coal

No. and Description of Boilers 1. Vertical Cross tube Working pressure 100 lbs

Tested by hydraulic pressure to 200 lbs Date of test June 12<sup>th</sup> 1933 No. of Certificate 547

Area of Firegrate in each Boiler 15.9 No. and Description of safety valves to each boiler 2. Enclosed lock up spring

Area of each set of valves per boiler per rule 1.565 as fitted 6.28 Pressure to which they are adjusted  Are they fitted with easing gear Yes

State whether steam from main boilers can enter the donkey boiler  Smallest distance between boiler or uptake and bunkers or woodwork  Is oil fuel carried in the double bottom under boiler  Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated  Largest internal dia. of boiler 5'-0" Height 10'-0"

Shell plates: Material Mild Steel Tensile strength 28/32 Tons Thickness 13/32"

Are the shell plates welded or flanged No Description of riveting: circ. seams end S.R. Lap long. seams D.R. Lap

Dia. of rivet holes in 13/16" Pitch of rivets 2" Percentage of strength of circ. seams plate 59.4% rivets 52% of Longitudinal joint plate 67.5% rivets 83.5% combined 76.8%

Working pressure of shell by rules 119 lbs Thickness of butt straps outer inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Dished partial spherical Material Mild Steel

Tensile strength 26/30 Tons Thickness 9/16" Radius 5'-0" Working pressure by rules 110 lbs

Description of Furnace Plain, spherical, or dished crown Dished Material Mild Steel Tensile strength 26/30 Tons

Thickness 7/32" External diameter top 48 5/16" bottom 55 11/16" Length as per rule 35 to end of stays Working pressure by rules 121 lbs

Pitch of support stays circumferentially 7 3/8" and vertically  Are stays fitted with nuts or riveted over riveted over

Diameter of stays over thread 1 1/8" dia Radius of spherical or dished furnace crown 4'-0" Working pressure by rule 108 lbs

Thickness of Ogee Ring  Diameter as per rule  Working pressure by rule

Combustion Chamber: Material  Tensile strength  Thickness of top plate

Radius if dished  Working pressure by rule  Thickness of back plate  Diameter if circular

Length as per rule  Pitch of stays  Are stays fitted with nuts or riveted over

Diameter of stays over thread  Working pressure of back plate by rules

Tube Plates: Material  Tensile strength  Thickness  Mean pitch of stay tubes in nests

If comprising shell, Dia. as per rule  Pitch in outer vertical rows  Dia. of tube holes FRONT  BACK

Is each alternate tube in outer vertical rows a stay tube  Working pressure by rules

Girders to combustion chamber tops: Material  Tensile strength

Depth and thickness of girder at centre  Length as per rule

Distance apart  No. and pitch of stays in each  Working pressure by rule

If apt, state whether, and when, you will be sent? In a separate sheet sent with Staff of the Ship?



**Crown stays:** Material ✓ Tensile strength 81,000 lb Diameter ✓ at body of stay ✓  
 No. of threads per inch ✓ Area supported by each stay ✓ Working pressure by rules ✓  
**Screw stays:** Material Mild Steel Tensile strength 26/30 20,000 lb Diameter ✓ at turned off part ✓  
 No. of threads per inch 11 Area supported by each stay ✓ Working pressure by rules ✓ Are the stays drilled at the outer ends ✓  
**Tubes:** Material ✓ External diameter ✓ plain ✓ Thickness ✓  
 No. of threads per inch ✓ Pitch of tubes ✓ Working pressure by rules ✓

**Manhole Compensation:** Size of opening in shell plate 16" x 12" Section of compensating ring 5 1/2" x 1/2" No. of rivets and diameter  
 of rivet holes 32 · 13/16 dia Outer row rivet pitch at ends 4 7/16" Depth of flange if manhole flanged ✓  
**Uptake:** External diameter 15" Thickness of uptake plate 9/16"  
**Cross Tubes:** No. 3 External diameters 10" Thickness of plates 3/8"

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes.

The foregoing is a correct description.  
**ORADLEY BOILER CO. LTD.,**  
William Manufacturer.

Dates of Survey May 24<sup>th</sup>, June 1<sup>st</sup>, June 12<sup>th</sup>/1933 Is the approved plan of boiler forwarded herewith Yes.  
 while building During erection on board vessel - - (If not state date of approval.)  
 Total No. of visits 3.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey & to the approved plan. The materials have been tested in accordance with the rules & the workmanship is good throughout.  
This boiler is intended for the S/V. "OLIVEBANK."

The boiler is marked as follows -

**N<sup>o</sup> 547**  
**LLOYDS TEST**  
**200 LBS<sup>o</sup>"**  
**W. P. 100 LBS<sup>o</sup>"**  
**M.A.B. 12.6.33**

Survey Fee ... .. £ 4-4-0 When applied for. 10  
 Travelling Expenses (if any) £ 2-3-6 When received. 19.6.19 33

W. A. Black  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 4 JUL. 1933  
 Assigned See Ital. Reg. 413797

