

REPORT ON BOILERS.

No. 439.

Received at London Office 15 JUN 1933

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

No. in Reg. Book 52487 Survey held at Bradley Heath Date, First Survey May 24th 1933 Last Survey June 12th 1933

on the New Vertical Cross tube boiler for S/V. "Olivebank" (Number of Visits 3) Gross 2795 Tons Net 2427

Built at Glasgow By whom built MacKie & Thomson Yard No. ✓ When built 1892

Engines made at ✓ By whom made ✓ Engine No. ✓ When made ✓

Boiler made at Bradley Heath By whom made Wm. The Bradley Boiler Co. 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. Ltd. Boiler No. 19874 When made 1933 Where fixed ✓

Manufacturers of Steel Wm. The British (Guest Keen & Baldwin's) Iron & Steel Co. Ltd. Port Talbot.

Total Heating Surface of Boiler 108 sq 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 12th 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 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 59.4% of Longitudinal joint 83.5%

Working pressure of shell by rules 119 lbs Thickness of butt straps outer 13/32" inner 13/32"

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 48 5/16" 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 front 13/16" back 13/16" Tensile strength ✓ Thickness ✓ Mean pitch of stay tubes in nests ✓

If comprising shell, Dia. as per rule front 13/16" back 13/16" Pitch in outer vertical rows ✓ Dia. of tube holes FRONT stay 13/16" plain 13/16" BACK stay 13/16" plain 13/16"

Is each alternate tube in outer vertical rows a stay tube ✓ Working pressure by rules front 110 lbs back 110 lbs

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 ✓

Crown stays: Material Mild Steel Tensile strength 26/30 tons Diameter 1 1/8" dia at body of stay ✓
 No. of threads per inch 11 Area supported by each stay ✓ Working pressure by rules ✓
 Screw stays: Material Mild Steel Tensile strength 26/30 tons Diameter 1 1/8" dia at turned off part ✓
 Area supported by each stay ✓ Working pressure by rules ✓ No. of threads per inch 11
 Are the stays drilled at the outer ends ✓
 Tubes: Material ✓ External diameter 10" plain ✓ Thickness 3/8"
 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 & CO. LTD.,
William Manufacturer.

Dates of Survey May 24th, June 1st, June 12th/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 -

No 547
 LLOYDS TEST
 200 LBS^Q
 W. P. 100 LBS^Q
 M.A.B. 12.6.33

Survey Fee ... £ 4-4-0 When applied for 10
 Travelling Expenses (if any) £ 2-3-6 When received 19.6.33

Committee's Minute JUL 4 JUL 1933
 Assigned See Ital Rpt 43797

Ma Black
 Engineer Surveyor to Lloyd's Register of Shipping.