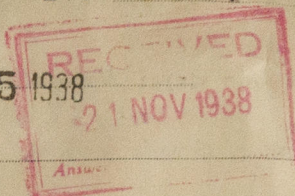


# REPORT ON BOILERS.

No. 500.

Received at London Office NOV 25 1938



Date of writing Report 19-11-1938 When handed in at Local Office 24-11-38. 19 Port of Sheffield.

No. in Reg. Book Survey held at Newark. Date, First Survey 3-9-38. Last Survey 17-11-1938.  
on the Yard No 1333, PRINCESS VICTORIA (Number of Visits 5) Gross 214.7 Tons Net 103.2

Built at By whom built Yard No. 1333 When built  
Engines made at By whom made Wm Denny & Bros. Engine No. 1083 When made  
Boilers made at Newark By whom made Abbott & Co (Newark) Ltd. Boilers No. 14913/4/5 When made 1938.  
Order of The Clarkson Humble Luke Boiler Co. Ltd. 702-3-4. Port belonging to

## VERTICAL DONKEY BOILER

Feed Water Heaters

Made at Newark. By whom made Abbott & Co (Newark) Ltd. Boilers No. 14913-4-5 When made 1938 Where fixed

Manufacturers of Steel Steel Company of Scotland Ltd.

Total Heating Surface of Boiler 50 sq. ft. Is forced draught fitted No. Exh. Gas. Coal or Oil fired YES.

No. and Description of Boilers Three off. Clarkson Patent Humble Luke Boiler Type Hecan/50 Working pressure 60 lbs/sq. in.

Tested by hydraulic pressure to 144 lbs/sq. in. Date of test 17th Nov. 1938. No. of Certificate 608.

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler One, 1" dia. Single Spring.

Area of each set of valves per boiler { per rule as fitted Pressure to which they are adjusted Not adjusted Are they fitted with easing gear No.

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 1'-9" Height 4'-6"

Shell plates: Material S.M. Steel. Tensile strength 28-32 Tons/sq. in. Thickness 1/4"

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

Dia. of rivet holes in { circ. seams 1 1/16" Pitch of rivets 1 3/4" Percentage of strength of circ. seams { plate 60.7 of Longitudinal joint { plate 61.8 rivets 67.7 combined

Working pressure of shell by rules 150 lbs/sq. in. Thickness of butt straps { outer inner

Base. Shell Crown: Whether complete hemisphere, dished partial spherical, or flat YES. Material S.M. Steel.

Tensile strength 26-30 Tons/sq. in. Thickness 5/16" Radius 1'-6 1/2" Working pressure by rules 190 lbs/sq. in.

Description of Furnace: Plain, spherical, or dished base. YES. Material S.M. Steel. Tensile strength 26-30 Tons/sq. in.

Thickness 3/8" External diameter 1'-3 3/4" Length as per rule 3'-4 1/4" Working pressure by rules 60 lbs/sq. in.

Pitch of support stays circumferentially and vertically Are stays fitted with nuts or riveted over

Diameter of stays over thread Radius of spherical or dished furnace crown 1'-2" Working pressure by rule 210 lbs/sq. in.

Thickness of Ogee Ring Diameter as per rule { D d 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 back Tensile strength { Thickness Mean pitch of stay tubes in nests

If comprising shell, Dia. as per rule { front back Pitch in outer vertical rows Dia. of tube holes FRONT 1 1/2" BACK 1 1/8" stay plain

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

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

W285-0121

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**Crown stays:** Material ☒ Tensile strength ☒ Diameter ☒ { at body of stay, or over threads. ☒  
 No. of threads per inch ☒ Area supported by each stay ☒ Working pressure by rules ☒  
**Screw stays:** Material ☒ Tensile strength ☒ Diameter ☒ { at turned off part, or over threads. ☒ No. of threads per inch ☒  
 Area supported by each stay ☒ Working pressure by rules ☒ Are the stays drilled at the outer ends ☒  
**Tubes:** Material S.M. Steel External diameter 1 1/2 51" Thickness 13 69.  
 No. of threads per inch ☒ Pitch of tubes ☒ Working pressure by rules ☒  
**Manhole Compensation:** Size of opening in shell plate ☒ Section of compensating ring ☒ No. of rivets and diameter of rivet holes ☒ Outer row rivet pitch at ends ☒ Depth of flange if manhole flanged ☒  
**Uptake:** External diameter ☒ Thickness of uptake plate ☒  
**Cross Tubes:** No. ☒ External diameters ☒ Thickness of plates ☒  
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes.

The foregoing is a correct description.  
**ABBOTT & CO. (NEWARK) LIMITED.**

R. E. Abbott Manufacturer  
 DIRECTOR

Dates of Survey { During progress of work in shops - 3-9-38, 20-10-38, 2-11-38, 9-11-38, 17-11-38 } 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 5

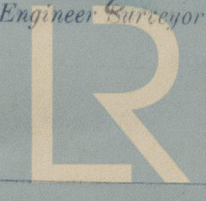
Is this Boiler a duplicate of a previous case No. If so, state Vessel's name and Report No. ☒

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) The boilers described above (together with their mountings) have been constructed under Special Survey of materials tested to Rule requirements. The workmanship is good, the boilers agree with the approved plan, a hydraulic test of 144 lbs sq. in. has been witnessed on each boiler with satisfactory results. The boilers have been marked on the upper flanges thus:-

**LLYD'S TEST.**  
**№ 608.**  
**144 lbs sq. in.**  
**60 lbs sq. in. W.P.**  
**W.K. 17-11-38.**  
**14913-4-5WK**

Survey Fee ... £ 12 : 12 : When applied for, Top test  
 Travelling Expenses (if any) £ 2 : - : When received, 29/11/38

Committee's Minute **GLASGOW 11 JUL 1939**  
 Assigned **SEE ACCOMPANYING MACHINERY REPORT**

M. Kimber  
 Engineer Surveyor to Lloyd's Register of Shipping.  
 Lloyd's Register Foundation