

REPORT ON BOILERS. No. 96,205

Received at London Office 10 APR 1931

10 APR 1931 When handed in at Local Office 10 APR 1931 Port of London (Spaunck)

Survey held at Date, First Survey 29<sup>th</sup> January Last Survey 17<sup>th</sup> March 1931  
on the For Messrs Vickers-Armstrongs 663<sup>rd</sup> Strathnaver Number of Visits 4  
Tons Gross 22574 Net 13620

Barrow By whom built Vickers-Armstrong Yard No. 663 When built 1931  
By whom made The British Thomson Houston Co. Ltd Engine No. When made 1931  
Kings Lynn By whom made A. Dodman & Co. Ltd Boiler No. 141<sup>F</sup> When made 1931  
Peninsular & Oriental Steam Navigation Co. Port belonging to London

VERTICAL DONKEY BOILER.

Kings Lynn By whom made A. Dodman & Co. Ltd Boiler No. 141<sup>F</sup> When made 1931 Where fixed Stokehold platform  
Manufacturers of Steel Messrs. Guest, Keen & Nettlefolds.

Heating Surface of Boiler 16 # Is forced draught fitted Coal or Oil fired oil.  
Description of Boilers One vertical Gross tube. Working pressure 100 lb.  
Tested by hydraulic pressure to 200 lb. Date of test 17.2.31 No. of Certificate 292.

No. and Description of safety valves to each boiler 2 - 1" dia. Spring loaded.  
Pressure to which they are adjusted 100 lb. Are they fitted with easing gear  
Whether steam from main boilers can enter the donkey boiler No Smallest distance between boiler and bunkers

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 No Largest internal dia. of boiler 24" Height 4'-0"  
Material Steel Tensile strength 28-32 tons Thickness 1/4"

the shell plates welded or flanged No Description of riveting: circ. seams S.R. lap long. seams A.R. lap.  
Pitch of rivets 1 3/4" Percentage of strength of circ. seams 61 of Longitudinal joint 108  
Pitch of rivets 2 1/4"

Working pressure of shell by rules 168 lb. Thickness of butt straps outer inner  
Material Steel  
Whether complete hemisphere, dished partial spherical, or flat flat  
Tensile strength 26-30 tons Thickness 3/8" Radius Working pressure by rules 165 lb.

Description of Furnace: Plain, spherical, or dished crown Plain Material Steel Tensile strength 26-30 tons  
Thickness 5/16" External diameter top 1'-8" bottom 1'-8" Length as per rule 1'-10" Working pressure by rules 115 lb.

Are stays fitted with nuts or riveted over  
Radius of spherical or dished furnace crown Flat Working pressure by rule 156 lb.  
Thickness of Ogee Ring Solid ring 2" x 2" Diameter as per rule Working pressure by rule

Combustion Chamber: Material Tensile strength Thickness of top plate  
Thickness of back plate Diameter if circular  
Pitch of stays Are stays fitted with nuts or riveted over  
Working pressure of back plate by rules

Tube Plates: Material front back Tensile strength Thickness Mean pitch of stay tubes in nests  
Pitch in outer vertical rows Dia. of tube holes FRONT BACK  
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

**Crown stays:** Material ☒ Tensile strength ☒  
 No. of threads per inch ☒ Area supported by each stay ☒ Diameter ☒ at body of stay or over threads ☒  
**Screw stays:** Material ☒ Tensile strength ☒ Working pressure by rules ☒  
 Area supported by each stay ☒ Diameter ☒ at turned off part or over threads ☒ No. of threads per inch ☒  
**Tubes:** Material ☒ Working pressure by rules ☒ Are the stays drilled at the outer ends ☒  
 No. of threads per inch ☒ Pitch of tubes ☒ External diameter ☒ plain ☒ stay ☒ Thickness ☒  
**Manhole Compensation:** Size of opening in shell plate  $7 \times 10$  ☒ Section of compensating ring  $4 \times \frac{3}{8}$  ☒  
 of rivet holes  $16 \text{ rivets}$  ☒ Outer row rivet pitch at ends  $5 \frac{1}{4}$  ☒ No. of rivets and d. ☒  
**Uptake:** External diameter  $6 \text{ dia.}$  ☒ Depth of flange if manhole flanged ☒  
**Cross Tubes:** No.  $one$  ☒ External diameter  $6$  ☒ Thickness of uptake plate  $\frac{5}{16}$  ☒  
 Thickness of plates  $\frac{3}{8}$  ☒  
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with ☒ *Yes*

The foregoing is a correct description.

*Asky Crisp*

Dates of Survey while building ☒ During progress of work in shops -  $1931 - Jan. 29, Feb. 11-17, Mar. 17^{th}$   
☒ During erection on board vessel -  $16 June + 19^{th} August 1931$

Is the approved plan of boiler forwarded herewith ☒ *Yes*  
 (If not state date of approval.)  
 Total No. of visits  $46$

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

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) The materials and workmanship are good. This boiler has been built under special survey in accordance with the Rules & approved plan.  
 This boiler is to be used for lighting up the Auxiliary or main boiler in connection with the Oil & Installation has been efficiently fitted on board and its safety valves adjusted under steam.  
 Safety valve. Washer Port  $4 \frac{1}{16}$  Std  $2 \frac{5}{16}$

Survey Fee  $\pounds 4.4.0$  : } When applied **18 APR 1931**  
 Travelling Expenses (if any)  $\pounds 5.1.6$  : } When received *18 April 1931* *HSW*

Committee's Minute **FRI 18 SEP 1931**  
 Assigned *See Rev. J.E. 2414*

*A.E. Farmer* *W.D. Jones*  
 Engineer Surveyor to Lloyd's Register of Shipping.

