

## REPORT ON BOILERS.

Received at London Office

25 JUN 1947

Date of writing Report 19 When handed in at Local Office 19 Port of NOTTINGHAM.

NEWCASTLE-ON-TYNE 8-MAR 1949

No. in Survey held at Lincoln Date, First Survey Last Survey 19

Reg. Book. 95136 on the S. S. SHILLONG

NEWCASTLE-ON-TYNE SEE OVER Tons Gross 8933.68 Net 4816.33

Built at Newcastle By whom built Vickers Armstrong Ltd. Yard No. 104 955 When built 1948

Engines made at BARROW By whom made VICKERS-ARMSTRONGS LTD Engine No. 955 When made 1948

Boilers made at Lincoln By whom made Ruston & Hornsby Ltd. Boiler No. When made

Owners PENINSULAR & ORIENTAL STEAM NAV. CO. LTD Port belonging to LONDON

## VERTICAL BOILER.

Made at Lincoln By whom made Ruston & Hornsby Ltd. Boiler No. 52700 When made 1947 Where fixed TOWER DECK ABOVE

Manufacturers of Steel Appleby-Frodingham Steel Co. Ltd.

Total Heating Surface of Boiler 550 sq. ft. Is forced draught fitted Coal or Oil fired Oil

No. and Description of Boilers Melvin Vertical Thimble Tube Boiler, 7'-0" dia. x 16'-3" Working Pressure 100 lbs.

Tested by hydraulic pressure to 200 lbs. Date of test 16-6-47. No. of Certificate 108

Area of fire grate in each Boiler - No. and description of safety valves to each boiler 1 - 2 1/2 Double Spring.

Area of each set of valves per boiler { per Rule Pressure to which they are adjusted 100 lbs/s Are they fitted with easing gear YES

State whether steam from main boilers can enter the donkey boiler No Smallest distance between boiler or uptake 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 Largest internal dia. of boiler 7'-0" Height 16'-3"

Shell plates: Material Steel Tensile strength 28-32 Tons Thickness 7/16"

Are the shell plates welded or flanged No If fusion welded, state name of welding firm

Have all the requirements of the Rules for Class I vessels been complied with Description of riveting: circ. seams { end inter

long. seams D. R. D. B. S. Dia. of rivet holes in { circ. seams 25/32" Pitch of rivets { 2.128" Percentage of strength of circ. seams { plate 63.75% rivets 42.29%

of longitudinal joint { plate 76.58% rivets 93.05% Thickness of butt straps { outer inner

spherical, or flat Dished Material Steel Tensile strength 26/30 Tons Thickness 13/16"

Radius 6'-0" Description of Furnace: Plain, spherical, or dished crown Spherical Material Steel

Tensile strength 26/30 Tons Thickness { Upper 5/8" External diameter { top 4'-5.11/16" Length as per Rule

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

Thickness of Ogee Ring Diameter as per Rule { D d

Combustion Chamber: Material Tensile strength Thickness of top plate

Radius if dished 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

Tube Plates: Material { front Circular Tensile strength { 26/30 Tons Thickness { 1.7/32" Mean pitch of stay tubes in nests

If comprising shell, dia. as per Rule { front Steel Pitch in outer vertical rows { 6.328" Dia. of tube holes FRONT { stay 3 1/2" BACK { stay

Is each alternate tube in outer vertical rows a stay tube Thimble Tubes throughout

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

Crown Stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Diameter { at body of stay or over threads \_\_\_\_\_  
No. of threads per inch \_\_\_\_\_ Screw Stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_  
Diameter { at turned off part or over threads \_\_\_\_\_ No. of threads per inch \_\_\_\_\_ Are the stays drilled at the outer ends \_\_\_\_\_  
Tubes: Material Steel. Thimble Tubes. ✓ External diameter { plain. 3 1/2" o/d. ✓ Thickness 10BWG. and 8BWG. ✓  
No. of threads per inch \_\_\_\_\_ Pitch of tubes (a) one @ 16" x 12" (b) one @ 16" x 12" flanged. ✓  
Manhole Compensation: Size of opening in shell plate. Section of compensating ring 2'-3" x 1'-11" x 3/4" No. of rivets and diameter (a) not flanged ✓  
of rivet holes. 36 @ 25/32" ✓ Outer row rivet pitch at ends. Depth of flange if manhole flanged (b) 3.3/8" ✓  
Uptake: External diameter 2'-4.3/8" ✓ Thickness of uptake plate 11/16" ✓  
Cross Tubes: No. \_\_\_\_\_ External diameters { \_\_\_\_\_ Thickness of plates. \_\_\_\_\_  
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with. \_\_\_\_\_

The foregoing is a correct description.

Ruston & Hornsby, Limited. Manufacturer.

Dates of Survey { During progress of work in shops - - - } Is the approved plan of boiler forwarded herewith Yes. (If not state date of approval.) 1-1-47.  
while building { During erection on board vessel - - - } Total No. of visits \_\_\_\_\_

Is this Boiler a duplicate of a previous case. Yes. If so, state Vessel's name and Report No. Vickers Armstrong. Yd. No. 954. Rpt. 18

#### GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.).

This boiler has been built under Survey, in accordance with the approved plans and the Rules of the Society.

On completion the boiler was subjected to an hydraulic test of 200 lbs. being found tight and sound at that pressure.

The boiler is being forwarded to Newcastle for installation on board the vessel.

**SURVEY OF MACHINERY.**  
**NEWCASTLE-ON-TYNE.**

FIRST SURVEY 3/5/48 LAST SURVEY 4/3/49.  
No. OF VISITS 48

*The boiler has been efficiently installed on board, examined under steam & the safety valves adjusted under steam to the approved pressure*

*J. A. E. Munro & self J. A. Orle*  
*Newcastle-a-Tyne*  
*3<sup>rd</sup> March 1949*

**SURVEYOR TO LLOYD'S REGISTER.**  
**NEWCASTLE-ON-TYNE.**

Survey Fee ... £ 6 : 0 : 0 } When applied for 26-6-1947  
Travelling Expenses (if any) £ : : } When received 19

Date

FRI 29 APR 1947

Committee's Minute

*See F.E. weekly rpt.*

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
Foundation