

RECEIVED

NEWCASTLE-ON-TYNE, No. 105986

Rpt. 5b.

21 NOV 1947

## REPORT ON BOILERS.

No. 238.

21 NOV 1947

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of

NOTTINGHAM.

No. in Survey held at  
Reg. Book

Lincoln.

Date, First Survey

Last Survey

19

95/36 on the  
S.S. SHILLONG  
Supplement

NEWCASTLE-ON-TYNE, 5-MAR 1949.

(Number of Visits  
TonsGross 8933.68  
Net 4816.33

Built at Newcastle.

By whom built

Vickers-Armstrongs 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 &amp; Hornsby Ltd.,

Boiler No. 52704.  
52705.  
52706.

When made 1947.

Owners

PENINSULAR &amp; ORIENTAL STEAM NAV. CO. LTD

Port belonging to

LONDON.

## VERTICAL DONKEY BOILER.

Made at Lincoln.

By whom made Ruston &amp; Hornsby Ltd.

Boiler No. 52704.  
52705.  
52706.

When made 1947

Where fixed FOREN DECK AT  
END OF EL.

Manufacturers of Steel

Appleby-Frodingham Steel Co. Ltd.

Total Heating Surface of Boiler

2'-10 1/2" dia. x 8'-8 1/2" Is forced draught fitted

Coal or Oil fired Exhaust gas

No. and Description of Boilers

Three "Nelyin" Vertical Thimble Tube Hot Water Silencer Boilers.

Working pressure 25 lbs.

Tested by hydraulic pressure to

50 lbs.

Date of test

8-10-47. 20.10.47. 27.10.47.

No. of Certificate 110

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

1-1" BORE SPRING LOADED RELIEF VALVE.

Area of each set of valves per boiler

per rule  
as fitted

Pressure to which they are adjusted 25 lbs/p

Are they fitted with easing gear No

State whether steam from main boilers can enter the donkey boiler

No.

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

Height

Shell plates: Material

Steel. ✓

Tensile strength 28-32 Tons. ✓

Thickness 1/4" ✓

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 S. R. Lap.

inter.

long. seams S. R. Lap.

Dia. of rivet holes in

21/32" circ. seams  
21/32" long. seams

Pitch of rivets

Percentage of strength of circ. seams

plate 62.5%  
rivet 63.5%

of Longitudinal joint

plate 70.25.  
rivet 62.5.  
combined

Thickness of butt straps

outer  
inner

Shell Crown: Whether complete hemisphere, dished partial

spherical, or flat

Flanged.

Material

Steel.

Tensile strength

26-30 Tons.

Thickness

1/2"

Radius

Description of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

Thickness

External diameter

top  
bottom

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

a

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.  
back Steel.

Tensile strength

26-30 Tons.

Thickness

3/4"

Mean pitch of stay tubes in nests

If comprising shell, Dia. as per rule

from 2'-1" Pitch in outer vertical rows

Circu. 3.3706.

Dia. of tube holes

FRONT

stay

2"

BACK

stay

plain

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

005453-005461-0029



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 2" o/dia. Thickness { LOGWG. No. of threads per inch Pitch of tubes Handhole Manhole Compensation: Size of opening in shell plate 8 off - 3 1/2" X 2 1/2" Section of compensating ring each 8 x 7 x 1/4" No. of rivets and diameter of rivet holes Outer row rivet pitch at ends Depth of flange if manhole flanged Uptake: External diameter 1'-0 3/8" Thickness of uptake plate 3/16" 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 - 10.7.46. 5.5.47. 28.5.47. 4.6.47. Is the approved plan of boiler forwarded herewith Yes while building { During erection on board vessel - 6.10.47. 8.10.47. 15.10.47. 20.10.47. (If not state date of approval.) Total No. of visits 25-2-47. Is this Boiler a duplicate of a previous case Yes Rpt. 202 - Vickers-Armstrongs Yd. No. 954. If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under Special Survey, in accordance with the approved plans and Rules of the Society. On completion they were subjected to an hydraulic test of 50 lbs. being sound and tight at that pressure. The boilers are being forwarded to Newcastle for installation on board the vessel.

SURVEY OF MACHINERY. FIRST SURVEY 3/5/48 LAST SURVEY 4/3/49 NEWCASTLE-ON-TYNE No. OF VISITS 48.

These hot water silenced boilers have been efficiently installed in place on board, examined under working conditions with satisfactory results. Relief valves tried & found satisfactory at 25 lbs/p

J. A. E. Munro & Self. J. A. Orde Newcastle-on-Tyne SURVEYOR TO LLOYD'S REGISTER. 3rd March 1949. NEWCASTLE-ON-TYNE.

Survey Fee ... £ 18 : 0 : ) When applied for, 20-11-19 47. Travelling Expenses (if any) £ : : ) When received, 19

Committee's Minute FRI 29 APR 1949 Assigned See F.E. mch. rpt.

