

Transit classed in Norwegian Venter

Rpt. 5b.

# REPORT ON BOILERS.

No. 91528

17 JUN 1927

Received at London Office

17 JUN 1927

Port of London

Date of writing Report 17 JUN 1927 When handed in at Local Office

Date, First Survey 1<sup>st</sup> April 1927 Last Survey June 13<sup>th</sup> 1927

No. in Reg. Book 8073 on the Loughborough Vertical Boilers made by Messrs. Walter W. Colman & Co. Ld. (Number of Visits 3) Gross Tons Net

Built at By whom built (for Norwegian Venter class) Yard No. When built

Engines made at By whom made See Got in dated 7/2/27 Engine No. When made

Boilers made at By whom made Boiler No. When made

Owners Port belonging to This boiler has now been fitted to M.V. Nagara See Got 7504 28/4/29.

## VERTICAL DONKEY BOILER.

Made at Loughboro By whom made Walter W. Colman & Co. Ld. Boiler No. 5067 When made 1927 Where fixed

Manufacturers of Steel S. A. de la Fabrique de Fer de Charleroi

Total Heating Surface of Boiler 100 sq Is forced draught fitted no Coal or Oil fired Coal

No. and Description of Boilers One Vertical, Cross Tube Working pressure 85 lbs

Tested by hydraulic pressure to 170 Date of test 13-6-27 No. of Certificate 1314

Area of Firegrate in each Boiler 10 sq No. and Description of safety valves to each boiler 2 Spring loaded 2" dia.

Area of each set of valves per boiler per rule 1.250 as fitted 6.300 Pressure to which they are adjusted Are they fitted with easing gear

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 4 ft. Height 11' 4"

Shell plates: Material Steel Tensile strength 28-32 Thickness 3/4

Are the shell plates welded or flanged no Description of riveting: circ. seams end 2" B inter. long. seams 5R lap

Dia. of rivet holes in circ. seams 3/4 Pitch of rivets 2" Percentage of strength of circ. seams plate 62% rivets 48% of Longitudinal joint plate 70% rivets 74% combined

Working pressure of shell by rules 140 Thickness of butt straps outer inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat dished Material Steel

Tensile strength 28-32 Thickness 1/2 Radius 4 ft. Working pressure by rules 130

Description of Furnace: Plain, spherical, or dished crown dished Material Steel Tensile strength 26-30

Thickness 1/2 External diameter top 3' 3" bottom 3' 7" Length as per rule 6' 6" Working pressure by rules 85

Pitch of support stays circumferentially 6" and vertically Are stays fitted with nuts or riveted over 85 rivets

Diameter of stays over thread 1" Radius of spherical or dished furnace crown 9' 3" Working pressure by rule

Thickness of Ogee Ring Diameter as per rule D d Working pressure by rule

Combustion Chamber: Material Steel Tensile strength 26-30 Thickness of top plate 1/2

Radius if dished 39" Working pressure by rule 104 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 stay plain BACK 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

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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 \_\_\_\_\_ External diameter { plain \_\_\_\_\_ stay \_\_\_\_\_ } Thickness { \_\_\_\_\_ }  
 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 6 x 1/2 No. of rivets and diameter \_\_\_\_\_  
 of rivet holes 44 - dia 3/4 Outer row rivet pitch at ends 5 1/2 Depth of flange if manhole flanged \_\_\_\_\_

**Uptake:** External diameter 11" Thickness of uptake plate 1/2

**Cross Tubes:** No. 4 External diameters { 9" } Thickness of plates 3/8

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes.

The foregoing is a correct description,  
 PER KEO W. W. BOLTMAN & CO., LTD  
*Boltman* Manufacturer.

Dates of Survey while building { During progress of work in shops - - } 1927 - Apr 1 May 30 June 13 Is the approved plan of boiler forwarded herewith (If not state date of approval.) Yes  
 { During erection on board vessel - - } \_\_\_\_\_ Total No. of visits 3 (2 shops)

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

*This boiler has been built under Special Survey in accordance with the plan & the Society's Rules.  
 The steel used in its construction has been tested according to the Rules.  
 The workmanship is good.  
 Upon completion the boiler was tested by hydraulic pressure to 170 lbs per sq. inch & showed no signs of weakness or defect.  
 The mark is - No. 1314  
 Hydro test 170 lbs.  
 W.P. 85"  
 13-6-27. A.P.C.*

Survey Fee ... .. £ 4 : 4 : } When applied for, 17 JUN 1927  
 Travelling Expenses (if any) £ 3 : 3/6 } When received, 18th Aug 1927

*H. Cornick*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 14 MAY 1929  
 Assigned Not for classing Committee

*See Got up No 7507*  
 Lloyd's Register Foundation