

## REPORT ON BOILERS.

No. 10731

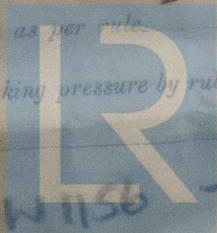
NOV 20 1938

Received at London Office

Report of Survey 14/11 1938 When handed in at Local Office 14/11 1938 Port of Copenhagen  
 Survey held at Copenhagen - Statens Date, First Survey 7<sup>th</sup> September Last Survey 9<sup>th</sup> November 1938  
 No. in eg. Book 3481 on the Tug Se. 4 kkt. "SIAM" (Number of Visits 9. Gross 6637 Tons Net 4223)  
 Built at Copenhagen By whom built Aht. Burmeister & Wain Yard No. - When built 1913-4  
 Engines made at Copenhagen By whom made Aht. Burmeister & Wain Engine No. - When made 1913  
 Boilers made at - By whom made - Boiler No. - When made -  
 Owners S. Det Internationale Kompagni Port belonging to Copenhagen

## VERTICAL DONKEY BOILER.

Boiler No. 729 When made 1938 Where fixed in the engine room  
 By whom made S. Smith, Hygieine & Lillmeier  
 Manufacturers of Steel Plates: The Appley, Fordingham, Steel Co. Ltd. & Sons & Smith's: Stewart & Lloyd  
 Total Heating Surface of Boiler 6.60 m<sup>2</sup> Is forced draught fitted no Coal or Oil fired oil fired  
 No. and Description of Boilers 1 of vertical cross tube Working pressure 6 kg/cm<sup>2</sup>  
 Tested by hydraulic pressure to 12 kg/cm<sup>2</sup> Date of test 21.10.38 No. of Certificate 633  
 Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler 1 of 55<sup>th</sup> direct spring loaded  
 Area of each set of valves per boiler { per rule 1980 cm<sup>2</sup> as fitted 2370 cm<sup>2</sup> Pressure to which they are adjusted 6 kg/cm<sup>2</sup> Are they fitted with easing gear yes  
 State whether steam from main boilers can enter the donkey boiler no main boiler Smallest distance between boiler or uptake and bunkers  
 Is the base of the boiler insulated yes Largest internal dia. of boiler 1016 mm Height 2535 mm  
 Shell plates: Material S. M. Steel Tensile strength 44 kg/mm<sup>2</sup> Thickness 8 mm  
 Are the shell plates welded or flanged no Description of riveting: circ. seams { end single inter single long. seams double lap joint  
 Dia. of rivet holes in { circ. seams 17.5 mm long. seams 17.5 mm Pitch of rivets { 43 mm 60 mm Percentage of strength of circ. seams { plate 59.3 rivets 57.3 of Longitudinal joint { plate 70.8 rivets 82.2 combined -  
 Working pressure of shell by rules 9.7 kg/cm<sup>2</sup> Thickness of butt straps { outer - inner -  
 Shell Crown: Whether complete hemisphere, dished partial spherical, or flat dished Material S. M. Steel  
 Tensile strength 41 kg/mm<sup>2</sup> Thickness 9.5 mm Radius 1000 mm Working pressure by rules 7.6 kg/cm<sup>2</sup>  
 Description of Furnace: Plain, spherical, or dished crown dished Material S. M. Steel Tensile strength 41 kg/mm<sup>2</sup>  
 Thickness 12.5 mm External diameter { top 875 mm bottom 875 mm Length as per rule 1447 mm Working pressure by rules 7.95 kg/cm<sup>2</sup>  
 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 850 mm Working pressure by rule 6.3 kg/cm<sup>2</sup>  
 Thickness of Ogee Ring 12.5 mm Diameter as per rule { D 1016 mm d 875 mm Working pressure by rule 9.6 kg/cm<sup>2</sup>  
 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 { 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 -



© 2020

Lloyd's Register  
Foundation



**Crown stays:** Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Diameter <sup>at body of stay</sup> \_\_\_\_\_ or <sup>over threads</sup> \_\_\_\_\_

No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

**Screw stays:** Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Diameter <sup>at turned part</sup> \_\_\_\_\_ or <sup>over threads</sup> \_\_\_\_\_ 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 <sup>plain</sup> \_\_\_\_\_ <sup>stay</sup> \_\_\_\_\_ Thickness \_\_\_\_\_

No. of threads per inch \_\_\_\_\_ Pitch of tubes \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

**Manhole Compensation:** Size of opening in shell plate 280 x 380 mm Section of compensating ring flat No. of rivets and diam \_\_\_\_\_

of rivet holes 22 of 17.5 mm Outer row rivet pitch at ends 60 mm Depth of flange if manhole flanged \_\_\_\_\_

**Uptake:** External diameter 254 mm Thickness of uptake plate 10 mm

**Cross Tubes:** No. 4 External diameters 229 mm Thickness of plates 10 mm

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

The foregoing is a correct description,  
**SMITH, MYGIND & HÜTTEMEIER**  
*Stamer*  
 Manufacturer

Dates of Survey <sup>During progress of work in shops - -</sup> 7/9-15/9-27/9-4/10-5/10-14/10-2/11  
<sup>while building</sup> <sup>During erection on board vessel - -</sup> 3/11-9/11-1938

Is the approved plan of boiler forwarded herewith yes  
 (If not state date of approval.)  
 Total No. of visits 9

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.) This boiler has been constructed and fitted on board under Special survey in accordance with the Rules, the approved plans, the requirements contained in the Secretary's letter E dated 9/8. 24/9 - 1938

The material used in construction has been tested as required by the Rules and the workmanship is good.

The existing feed pump & the injector have been fitted to the boiler.

Survey Fee ... £95.00 When applied for, 17. 11. 38  
 Travelling Expenses (if any) £4.60 When received, 28. 11. 38

Committee's Minute  
 Assigned See Cfr. No. 10730

*W. Langhorne Lewis*  
 Engineer Surveyor to Lloyd's Register of Shipping.

