

8873

REPORT ON BOILERS.

No. 17919

Received at London Office 2 MAR 1928

Writing Report 28th Febr 1928 When handed in at Local Office 10 Port of Hamburg

Survey held at Hamburg Date, First Survey 14th Febr. 1928 Last Survey 22nd Febr. 1928
Book 75 on the Steam Motor Vessel "BRETAGNE" (Number of Visits 4) Tons { Gross 3176.67 Net 1930.66

at Copenhagen By whom built Burmeister & Wain Yard No. 755 When built 1927-28
Boilers made at Copenhagen By whom made Akt. Burmeister & Wain's Maskin og Skibsbyggeri Engine No. 1430 When made 1927-28
Boilers made at Altona-Ottensen By whom made Ottensens Eisenwerk A.G. Boiler No. 4380 When made 1928
Vessel Det Danske-Franske Dampskibsselskab (A.S. Petersen) Port belonging to Copenhagen

VERTICAL DONKEY BOILER.

at Altona By whom made Ottensens Eisenwerk Boiler No. 4380 When made 1928 Where fixed In the machinery space.

Manufacturers of Steel Mess. Mannemann-Röhren-Werke, Akt. Schula Knandt of Hückingen

Heating Surface of Boiler 6.5 m² Is forced draught fitted Coal or Oil fired Oil fired

Description of Boilers One vertical Donkey Boiler with four cross tubes Working pressure 7 kg/cm² (100 lbs)

Tested by hydraulic pressure to 200 lbs Date of test 22nd February 1928 No. of Certificate 466

Firegrate in each Boiler No. and Description of safety valves to each boiler two, spring loaded

Pressure of each set of valves per boiler { per rule 5.95 atm² as fitted 2.575 atm² Pressure to which they are adjusted 100 lbs. Are they fitted with easing gear. yes

Whether steam from main boilers can enter the donkey boiler No main boilers Smallest distance between boiler or uptake and bunkers To bunkers

Woodwork or woodwork Is oil fuel carried in the double bottom under boiler yes Smallest distance between base of boiler and tank top plating 42"

Is the base of the boiler insulated yes Largest internal dia. of boiler 1200 mm Height 3000 mm

Plates: Material S. M. Steel Tensile strength 44-50 kg/mm² Thickness 9 mm

Shell plates welded or flanged Flanged Description of riveting: circ. seams { end by single bottom by single inner long. seams by double

of rivet holes in { circ. seams 20 mm bottom 20 mm long. seams 17 mm Pitch of rivets { bottom 50 mm 46 mm Percentage of strength of circ. seams { plate 63% rivets 45% of Longitudinal joint { plate 50% rivets 50% combined

Working pressure of shell by rules 8.8 kg/cm² Thickness of butt straps { outer inner

Crown: Whether complete hemisphere, dished partial spherical, or flat partial spherical Material S. M. Steel

Tensile strength 41-47 kg/mm² Thickness 12 mm Radius 1200 mm Working pressure by rules 8 kg/cm²

Description of Furnace: Plain, spherical, or dished crown partial spherical Material S. M. Steel Tensile strength 41-47 kg/mm²

Thickness 13 mm External diameter { top 900 mm bottom 900 mm Length as per rule 1350 mm Working pressure by rules 8.5 kg/cm²

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 950 mm Working pressure by rule 8.6 kg/cm²

Thickness of Ogee Ring 13 mm Diameter as per rule { D 1040 d 950 Working pressure by rule 8.9 kg/cm²

Combustion Chamber: Material Tensile strength Thickness of top plate

Material if dished Working pressure by rule Thickness of back plate Diameter if circular

Thickness 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

Plates: Material { front back Tensile strength Thickness Mean pitch of stay tubes in nests

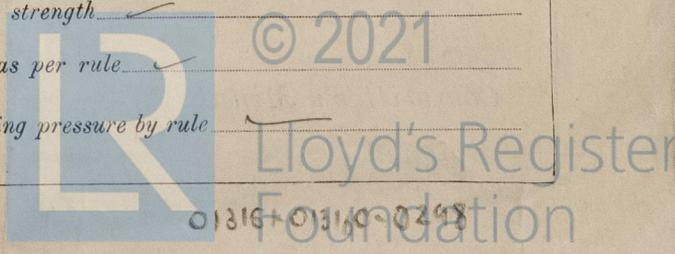
Arrangement of shell, Dia. as per rule { front back Pitch in outer vertical rows Dia. of tube holes FRONT { stay plain BACK { stay plain

Whether alternate tube in outer vertical rows a stay tube Working pressure by rules { front back

Boilers to combustion chamber tops: Material Tensile strength

Material 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 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, or stay. } Thickness
 No. of threads per inch Pitch of tubes Working pressure by rules
Manhole Compensation: Size of opening in shell plate $300 \times 400 \frac{1}{2}$ Section of compensating ring $400 \times 500 \frac{1}{2}$ No. of rivets and d of rivet holes 16 of $20 \frac{1}{2}$ Outer row rivet pitch at ends $90 \frac{1}{2}$ Depth of flange if manhole flanged
Uptake: External diameter $298 \frac{1}{2}$ Thickness of uptake plate $9 \frac{1}{2}$
Cross Tubes: No. 4 External diameters $260 \frac{1}{2}$ Thickness of plates $9 \frac{1}{2}$
 Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *yes*

The foregoing is a correct description,

Offensener Eisenwerk

Aktien-Gesellschaft

Manuf.

Dates of Survey During progress of work in shops - - $14/2.28, 17/2.28, 20/2.28, 22/2.28$ Is the approved plan of boiler forwarded herewith *yes*
 while building During erection on board vessel - - $16/4, 24/4, 27/4, 2/5, 11/5, 13/5, 1928$ Total No. of visits 4
 (If not state date of approval.)

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This Donkey Boiler has been built under Special Survey in accordance with the approved plan, the Secretary's letter E 16th Feb. 1927 and otherwise in conformity with the requirements of the Rules, and the materials and the workmanship are of good quality. The materials used in the construction are made at works recognized by the Committee and tested by the Port Surveyors in accordance with the Rules. When tested by hydraulic pressure to 200 lbs per square inch this Donkey Boiler was found to be tight and sound in every respect and showed no signs of weakness. It is eligible in our opinion for notation of * N.D.B. 2. 28. subject to examination under steam when fitted on board and Safety valves have been adjusted.*

Marks on Boiler:

N ^o 466
Lloyd's Test
200 lbs
WP 100 lbs
F.S. 22. 2. 28

The boiler has now been fitted on board the vessel and connected, under our supervision to our satisfaction.

A duplex pump (Warthington system) 90 mm x 60 mm x 90 mm and an injector have been fitted for the feeding purpose.

Recommend the vessel to have notation in the Register Book of DB-100 lbs.

Survey Fee £ 4 : 4 : 7 When applied for, $27.2.28$
 Travelling Expenses (if any) £ - : 10 : 7 When received, $12.3.28$

A. Carstensen Jr. Schme
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **JUES. 19 JUN 1928**

Assigned *see Minute on Cpu Rpt 77 27 attached*



Lloyd's Register Foundation