

## REPORT ON BOILERS.

No. 1750

Received at London Office

Date of writing Report 8th March 1952 When handed in at Local Office 1952 Port of HAMBURG  
 To, in Survey held at HAMBURG Date, First Survey 27.8.1951 Last Survey 20.2.1952  
 r. Book. 347 on the "GRØNLAND" (Number of Visits 33) Gross 11600 Tons  
 Net 11600  
 Built at Hamburg-Finkenwerder By whom built Deutsche Werft A.G. Yard No. 655 When built 1952  
 Engines made at Augsburg By whom made M.A.N. Engine No. 503000 When made 1952  
 Boilers made at Hamburg-Finkenwerder By whom made Deutsche Werft A.G. Boiler No. 1180/81 When made 1952  
 Nominal Horse Power 1600 Owners A/S Det Dansk-Franske Dampskipselskab Port belonging to Copenhagen

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Hüttenwerk Huckingen A.G., Duisburg-Wanheim (Letter for Record Df. C 1919)  
 Total Heating Surface of Boilers (2x 250 m<sup>2</sup>) 5382,2 sq. feet Is forced draught fitted yes Coal or Oil fired oil  
 and Description of Boilers Two, Scotch Type, Marine Single Ended, 3 furnaces Working Pressure 170,7 lbs  
305,8 lbs/sq. inch Date of test 11.12.51 No. of Certificate 17 & 18 Can each boiler be worked separately yes  
 Tested by hydraulic pressure to (21,5 Atm)  
 Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler One Double Spring Loaded Ordinary  
 Area of each set of valves per boiler per Rule 11280 mm<sup>2</sup> Pressure to which they are adjusted 171 lbs/sq. inch Are they fitted with easing gear yes  
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler -  
 Smallest distance between boilers or uptakes and bunkers or woodwork well clear Is oil fuel carried in the double bottom under boilers no  
 Smallest distance between shell of boiler and tank top plating well clear Is the bottom of the boiler insulated -  
 Largest internal dia. of boilers 4400 mm Length 3516 mm Shell plates: Material SMOH steel Tensile strength 47 kg/mm<sup>2</sup>  
 Thickness 27,5 mm Are the shell plates welded or flanged neither Description of riveting: circ. seams double riveted  
 Tr. DB with alternate rivets in outer row omitted Diameter of rivet holes in circ. seams 32 mm long. seams 32 mm Pitch of rivets 105,4 mm  
 Percentage of strength of circ. end seams plate 69,5 rivets 42,4 Percentage of strength of circ. intermediate seam plate - rivets -  
 Percentage of strength of longitudinal joint plate 84,5 % rivets 102 % Working pressure of shell by Rules 12,2 Atm.  
 Thickness of butt straps outer 27,5 mm inner 27,5 mm No. and Description of Furnaces in each Boiler Three, Morison Corrugated  
 Material SMOH steel Tensile strength 41 kg/mm<sup>2</sup> Smallest outside diameter 1078 mm  
 Thickness of plates top - bottom - 14 mm Description of longitudinal joint welded  
 Dimensions of stiffening rings on furnace or c.c. bottom none Working pressure of furnace by Rules 13,2 Atm.  
 Plates in steam space: Material SMOH steel Tensile strength 41 kg/mm<sup>2</sup> Thickness front 24 mm back 22 mm Pitch of stays 420x400 mm  
 Are stays secured Screwed both ends, nuts both sides, riveted Working pressure by Rules 12,6 Atm.  
 Front plates: Material SMOH steel Tensile strength 41 kg/mm<sup>2</sup> Thickness front 24 mm back 22 mm  
 Pitch of stay tubes in nests 208 x 208 mm Pitch across wide water spaces 208 x 360 Working pressure front 26,2 Atm. back 36,6 Atm.  
 Boilers to combustion chamber tops: Material SMOH steel Tensile strength 47 kg/mm<sup>2</sup> Depth and thickness of girder  
 Centre 275 x 22 mm Length as per Rule 760 mm Distance apart 200 mm centre 175 mm No. and pitch of stays  
 Thickness welded Working pressure by Rules 17,1 Atm. Combustion chamber plates: Material SMOH steel  
 Tensile strength 41 kg/mm<sup>2</sup> Thickness: Sides 16 mm Back 19 mm Top 16 mm Bottom 22 mm  
 of stays to ditto: Sides 190 x 200 mm Back 200 x 200 mm Top welded Are stays fitted with nuts or riveted over in nests-riveted over  
 Working pressure by Rules 14,3 Atm. Front plate at bottom: Material SMOH steel Tensile strength 41 kg/mm<sup>2</sup>  
 Thickness 24 mm Lower back plate: Material SMOH steel Tensile strength 41 kg/mm<sup>2</sup> Thickness 22 mm  
 of stays at wide water space 360 x 200 mm Are stays fitted with nuts or riveted over fitted with nuts  
 Working pressure 13,1 Atm. Main stays: Material SMOH steel Tensile strength 41 kg/mm<sup>2</sup>  
 At body of stay 62,58 mm No. of threads per inch 6 Area supported by each stay 420 x 400 mm  
 Over threads 68 mm  
 Working pressure by Rules 13,1 Atm. Screw stays: Material SMOH steel Tensile strength 41 kg/mm<sup>2</sup>  
 At turned off part 35,38 mm No. of threads per inch 9 Area supported by each stay 208 x 200 mm  
 Over threads 39 mm

004194-004199-0305

Lloyd's Register  
Foundation



Working pressure by Rules 14,5 Atm. Are the stays drilled at the outer ends no Margin stays: Diameter 38,38 mm pt. 4c.  
No. of threads per inch 9 Area supported by each stay 284 x 200 mm Working pressure by Rules 12,7 Atm.  
Tubes: Material SMOH steel External diameter 76 mm Thickness 3,75 mm No. of threads per inch welded  
Pitch of tubes 104 x 104 mm Working pressure by Rules 18,3 Atm. Manhole compensation: Size of opening 36 of 32 mm  
shell plate 420 x 525 mm Section of compensating ring 550 x 27,5 mm No. of rivets and diameter of rivet holes 36 of 32 mm  
Outer row rivet pitch at ends 218 mm Depth of flange if manhole flanged 85 mm Steam Dome: Material -  
Tensile strength - Thickness of shell - Description of longitudinal joint -  
Diameter of rivet holes - Pitch of rivets - Percentage of strength of joint -  
Internal diameter - Working pressure by Rules - Thickness of crown - No. and diameter of rivets -  
stays - Inner radius of crown - Working pressure by Rules -  
How connected to shell - Size of doubling plate under dome - Diameter of rivet holes and  
of rivets in outer row in dome connection to shell -

Type of Superheater none Manufacturers of -  
Number of elements - Material of tubes - Internal diameter and thickness of tubes -  
Material of headers - Tensile strength - Thickness - Can the superheater be shut off from the boiler -  
the boiler be worked separately - Is a safety valve fitted to every part of the superheater which can be shut off from the boiler -  
Area of each safety valve - Are the safety valves fitted with easing gear - Working pressure -  
Rules - Pressure to which the safety valves are adjusted - Hydraulic test pressure -  
tubes - forgings and castings - and after assembly in place - Are drain valves fitted to free the superheater from water where necessary -

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

**DEUTSCHE WERFT**  
AKTIENGESELLSCHAFT

*Handwritten signature*

Dates of Survey while building: During progress of work in shops Aug. 27, Sep: 12, 20, Oct: 1, 12, 19, 23, 30, Nov: 3, 8, 16, 20, 28, Dec: 11, 18, 22, 27, Jan: 2, 7, 9, 14, 17. Are the approved plans of boiler and superheater forwarded herewith yes  
During erection on board vessel Jan: 19, 26, 31, Feb: 1, 6, 8, 9, 12, 15, 18, 20. Total No. of visits 33

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.)

These boilers have been constructed under Special Survey in conformity with the Society's Rules and Regulations, the approved plans and the Secretary's letters. The materials and workmanship are good. The boilers have been examined during construction, properly installed in the above vessel, examined under working conditions and found good.

Survey Fee ... £ SEE : When applied for, 19  
Travelling Expenses (if any) £ REPORT 4b. When received, 19

*Handwritten signature*  
Engineer Surveyor to Lloyd's Register of Shipping

MAY 16 1952

Committee's Minute -

Assigned Sir F.E. Mch. spk



© 2020

Lloyd's Register  
Foundation