

# REPORT ON BOILERS.

No. 23050  
FEB 16 1939

47.38 Rpt. 5a.  
- 51.0  
kg/cm<sup>2</sup>  
9

Date of writing Report 12<sup>th</sup> Febr. 1939. When handed in at Local Office 19 Port of **HAMBURG**

No. in Survey held at **HAMBURG** Date, First Survey 22<sup>nd</sup> Sept. 1938 Last Survey 31<sup>st</sup> January 1939.  
- Steel 8222 on the **Twin Is. GERMANIA** (Number of Visits 5) Gross 9977  
Net 5800

Master Built at **HAMBURG** By whom built **Deutsche Werk A.G.** Yard No. 216 When built 1939.  
Engines made at **Augsburg** By whom made **Maschinenfabrik Augsburg - Nürnberg** Engine No. 68430/40 When made 1939  
Boilers made at **HAMBURG** By whom made **Deutsche Werk A.G.** Boiler No. 817, 818 When made 1939.  
Nominal Horse Power 1170 Owners **The Texas Co (Norway) A/S** Port belonging to **Oslo**.

**Waste-Heat La-Mont-Donkey Boiler Coil System.**  
**MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.**

Tubes: **Mannesmannröhrenwerke Abt. Remscheid.**  
Manufacturers of Steel Headers: **Gutehoffnungshütte A.G. Werk Sterkrade** (Letter for Record **S.**)

Total Heating Surface of Boilers **each boiler 100 sq. metres** Is forced draught fitted **-** Coal or Oil fired **exhaust-gas heated**

No. and Description of Boilers **Two Waste Heat "La Mont"-Donkey Boiler Coil Systems** Working Pressure **12 kg/cm<sup>2</sup>**  
Tested by hydraulic pressure to **307 lbs** Date of test **29.10.38** No. of Certificate **7/2, 7/3** Can each boiler be worked separately **only in connection with a sep. d. boiler**

Area of Firegrate in each Boiler **-** No. and Description of safety valves to each boiler **one, - spring-loaded**

Area of each set of valves per boiler { **35 mm φ** as fitted **962 mm** } Pressure to which they are adjusted **12 kg/cm<sup>2</sup>** 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 **-** Is oil fuel carried in the double bottom under boilers **-**

Smallest distance between shell of boiler and tank top plating **-** Is the bottom of the boiler insulated **yes**

Largest internal dia. of boilers **1280 mm** Length **3300 mm** HEADERS Shell-plates: Material **S-M-Steel** Tensile strength **41-47 kg/mm<sup>2</sup>**

Thickness of shell **10 mm** Are the shell plates welded or flanged **yes** Description of riveting: circ. seams { **end** **inter.** }  
No. of coils { **4 double coils** **3 triple coils** **2 quadruple coils** } Diameter of coil tubes **32 / 26 mm** Thickness of shell **3 mm**  
Pitch of rivets { **circ. seams** **long. seams** }

Percentage of strength of circ. end seams { **plate** **rivets** } Percentage of strength of circ. intermediate seam { **plate** **rivets** }

Percentage of strength of longitudinal joint { **plate** **rivets** **combined** } Working pressure of **tubes** by Rules **16.25 kg/cm<sup>2</sup>**

Thickness of butt straps { **outer** **inner** } No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Length of plain part { **top** **bottom** } Thickness of plates { **crown** **bottom** } Description of longitudinal joint

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules

End plates in steam space: Material Tensile strength Thickness Pitch of stays

How are stays secured Working pressure by Rules

Tube plates: Material { **front** **back** } Tensile strength Thickness

Mean pitch of stay tubes in nests Pitch across wide water spaces Working pressure { **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 Rules Combustion chamber plates: Material

Tensile strength Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

Working pressure by Rules Front plate at bottom: Material Tensile strength

Thickness Lower back plate: Material Tensile strength Thickness

Pitch of stays at wide water space Are stays fitted with nuts or riveted over

Working Pressure Main 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 Margin stays: Diameter { At turned off part, or Over threads }  
No. of threads per inch Area supported by each stay Working pressure by Rules  
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  
Section of compensating ring No. of rivets and diameter of rivet holes  
Outer row rivet pitch at ends Depth of flange if manhole flanged Steam Dome: Material  
Tensile strength Thickness of shell Description of longitudinal joint  
Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate Rivets }  
Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays  
Inner radius of crown Working pressure by Rules  
How connected to shell Size of doubling plate under dome Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater Manufacturers of { Tubes Steel castings }  
Number of elements Material of tubes Internal diameter and thickness of tubes  
Material of headers Tensile strength Thickness Can the superheater be shut off and 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 as per Rules  
Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes, castings and after assembly in place Are drain cocks or 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.

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - } 1938. Sept. 22 Oct. 8, 39.  
while building { During erection on board vessel - - } 1939. Jan. 11, 31.

Are the approved plans of boiler and superheater forwarded herewith 3.9.36.  
(If not state date of approval.)

Total No. of visits 5.

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. NUEVA GRANADA Hambg Rep. No. 22304

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

Material and workmanship of these

Waste-Heat - La Mont - Donkey Boiler Coil Systems are of good quality.

The materials used in their constructions are made at Works recognised by the Committee and tested by the Society's Surveyors in accordance with the requirements of the Rules.

These Donkey Boiler Coil Systems having been made under Special Survey in conformity with the approved plan, the Secretary's letter and otherwise in compliance with the requirements of the Rules are eligible in my opinion to be classed with notation in the Register Books.

Two Donkey Boilers (WT) 171 lbs/sq. inch pressure.

Thickness of safety valves' adjusting washers: Port boiler 6 mm, Starboard boiler 5 mm.

Survey Fee ... .. £ R.M. 168: - When applied for, 10.2. 1939.

Travelling Expenses (if any) £ : - : - When received, See Inct. rpt.

H. Röhrs

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 24 FEB 1939

Assigned

See FE in acty rpt.



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