

## REPORT ON BOILERS.

No. 22159

Received at London Office 14 JAN 1937

of writing Report 9<sup>th</sup> Jan. 1937 When handed in at Local Office 10 Port of Hamburg.

in Survey held at Hamburg Date, First Survey 20<sup>th</sup> Nov. 1936 Last Survey 14<sup>th</sup> Decemb. 1936

Book. (Number of Visits 4.) Tons { Gross Net

on the

ter Built at Wesermünde By whom built Messrs. Deschimag's Schiffyard No. 571 When built 1937

diameter By whom made Engine No. When made

ines made at By whom made Messrs. Deutsche Werft A.G. Boiler No. 691/92 When made 1936

s and pers made at Hamburg Owners United Africa Co. Port belonging to Liverpool.

inal Horse Power

Waste Heat La Mont Donkey Boiler Coil System:

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Headers: - Klockner Werke A.G. Abt. Georgsmarienhütte.

Manufacturers of Steel Tubes: - Mannesmann Röhren-Werke, Witten. (Letter for Record 5.)

are as Heating Surface of Boilers 40 m<sup>2</sup> Is forced draught fitted Coal or Oil fired Waste Gas

pressure and Description of Boilers 2; Waste Heat La Mont Donkey Boilers Working Pressure 7 Kgs/cm<sup>2</sup>

in cocks tested by hydraulic pressure to 14 Kgs/cm<sup>2</sup> Date of test 14-12-36 No. of Certificate 646/47 Can each boiler be worked separately only in connect. with a perfect Donkey Boiler.

area of Firegrate in each Boiler No. and Description of safety valves to each boiler 1; one spring loaded.

area of each set of valves per boiler { per Rule as fitted 707 mm = 300 Pressure to which they are adjusted Are they fitted with easing gear

case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

factur smallest distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers

2. smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

largest internal dia. of boilers 970 mm  $\phi$  height = 2700 mm Distributor 5.11. steel

Thickness  $\phi = 1002 \text{ mm} \times 602 \text{ mm}$  Are the shell plates welded or flanged Shell plates: Material Round bars Tensile strength 41-47 Kgs/mm<sup>2</sup>

of coils. 2 double coils, 2 quadruple coils, 1.5 sextuple coils. Diameter of rivet holes in { circ. seams 26/32 mm. Thickness 3 mm. Pitch of rivets { 3 mm.

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 shell by Rules 19.8 Kgs/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

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Foundation

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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 \_\_\_\_\_

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 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 pitch of rivets in outer row in dome connection to shell \_\_\_\_\_

Type of Superheater \_\_\_\_\_

Number of elements \_\_\_\_\_ Material of tubes \_\_\_\_\_ Manufacturers of { Tubes \_\_\_\_\_ Steel castings \_\_\_\_\_

Material of headers \_\_\_\_\_ Tensile strength \_\_\_\_\_ Internal diameter and thickness of tubes \_\_\_\_\_

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 \_\_\_\_\_

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 \_\_\_\_\_

The foregoing is a correct description,  
**DEUTSCHE WERFT**  
 AKTIENGESELLSCHAFT

Dates of Survey { During progress of work in shops - - - Nov. 20, 25, 26, Dec. - 14. Are the approved plans of boiler and superheater forwarded herewith 30/9/32  
 while building { During erection on board vessel - - - ✓ (If not state date of approval.)  
 Total No. of visits 4

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 Waste Heat Donkey Boilers and the Secretary's letters. The materials used in the construction are of good quality and have been tested by the Society's Surveyors. The workmanship is good. These W.H.D.B. Coil systems are eligible in my opinion for notation in the Society's Register Book with + D.B. pressure 100 lbs. when these D.B. have been satisfactorily fitted on board and tested under steam.*

Survey Fee ... £m. 168.00 When applied for, 11<sup>th</sup> Jan 32  
 Travelling Expenses (if any) £m. 5.00 When received, 19

*M. M. M. M.*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 2 JUL 1932  
 Assigned See Bmn 1975