

REPORT ON BOILERS.

No. 19591

Received at London Office

10 NOV 1930

Port of **HAMBURG**

Date, First Survey **6th June 1930** Last Survey **16th October 1930**

(Number of Visits **9**) Tons {Gross **10051**
Net **7019**

Survey held at **Hamburg**

on the **steel** **Trin Se. "KOLL"**

Hamburg

By whom built **Deutsche Herft A-G**

Yard No. **142**

When built **1930**

Augsburg

By whom made **Maschf. Augsburg-Nürnberg AG**

330420/30

When made **1930**

Hamburg

By whom made **Deutsche Herft AG**

Boiler No. **426**

When made **1930**

Odd Bergs Tankrederi A/S

Port belonging to **Oslo**

ICAL DONKEY BOILER.

Hamburg By whom made **Deutsche Herft AG**

Boiler No. **426**

When made **1930**

Where fixed **aft. tween dk.**

urers of Steel **Gutehoffnungshütte, Oberhausen**

ating Surface of Boiler **10 m²**

Is forced draught fitted **yes**

Coal or Oil fired **oil**

Description of Boilers **1 vertical multitubular Boiler**

Working pressure **100 lb.**

hydraulic pressure to **200 lb**

Date of test **21st August 1930**

No. of Certificate **518**

Firegrate in each Boiler **oil fired** No. and Description of safety valves to each boiler **1, two springs loaded**

each set of valves per boiler {per rule **920 mm²**
as fitted **2514 mm²**

Pressure to which they are adjusted **100 lb.**

Are they fitted with easing gear **yes**

ether steam from **main** boilers can enter the donkey boiler **no**

Smallest distance between boiler or uptake and bunkers

Is oil fuel carried in the double bottom under boiler

Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated

Largest internal dia. of boiler **1100 mm** Height **1825 mm**

Material **Siemens Martin Steel**

Tensile strength **44-50 kg/mm²**

Thickness **9 mm**

shell plates welded or flanged **flanged**

Description of riveting: circ. seams {end **single row**

long. seams **lap joint, double**

rivet holes in {circ. seams **20 mm**
long. seams **20 mm**

Pitch of rivets {**48.3 mm**
61- mm

Percentage of strength of circ. seams {plate **53.8**
rivets **59.2**

of Longitudinal joint {plate **67.1**
rivets **94.1**
combined **81.2**

pressure of shell by rules **9.75 kg/cm²**

Thickness of butt straps {outer **11 mm**
inner **11 mm**

Whether complete hemisphere, dished partial spherical, or flat **yes**

Material **Siem. Martin Steel**

strength **41-47 kg/mm²**

Thickness **12 mm**

Radius **1100 mm**

Working pressure by rules **8.9 kg/cm²**

tion of Furnace: Plain, spherical, or dished crown **dished crown**

Material **S.M. Steel**

Tensile strength **41-47 kg/mm²**

External diameter {top **800 mm**
bottom **900 mm**

Length as per rule **900 mm**

Working pressure by rules **11.1 kg/cm²**

support stays circumferentially **none fitted** and vertically

Are stays fitted with nuts or riveted over

er of stays over thread

Radius of spherical or dished furnace crown **1100 mm**

Working pressure by rule **8.1 kg/cm²**

ss of Ogee Ring **none fitted**

Diameter as per rule {D **1100 mm**
d **1100 mm**

Working pressure by rule

tion Chamber: Material **S.M. Steel**

Tensile strength **41-47 kg/mm²**

Thickness of top plate **15 mm**

if dished **1100 mm**

Working pressure by rule **8.1 kg/cm²**

Thickness of back plate

Diameter if circular

as per rule

Pitch of stays

Are stays fitted with nuts or riveted over

er of stays over thread

Working pressure of back plate by rules

plates: Material {front **S.M.**
back **Steel**

Tensile strength {**41-47 kg/mm²**
41-47

Thickness {**18 mm**
18 mm

Mean pitch of stay tubes in nests **none fitted**,
see Letter E, 13/4/30

rising shell, Dia. as per rule {front **660 mm**
back **660 mm**

Pitch in outer vertical rows {**89 mm**
89 mm

Dia. of tube holes FRONT {stay **70 mm**
plain **64 mm**

BACK {stay **64 mm**
plain **64 mm**

alternate tube in outer vertical rows a stay tube **no**

Working pressure by rules {front **11.9 kg/cm²**
back **11.2 kg/cm²**

s to combustion chamber tops: Material **none**

Tensile strength

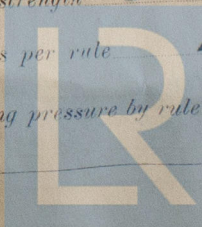
Length as per rule

and thickness of girder at centre

Working pressure by rule

ce apart

No. and pitch of stays in each



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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 Siemens Martin Steel, solid drawn External diameter { plain 63.5 mm stay 63.5 mm Thickness { 3 mm 8 mm

No. of threads per inch 9 Pitch of tubes 89 mm Working pressure by rules 9.5 kg/cm²

Manhole Compensation: Size of opening in shell plate 280 x 380 mm Section of compensating ring 140 x 9 mm No. of rivets and diameter of rivet holes 28, φ 20 mm Outer row rivet pitch at ends 125 mm Depth of flange if manhole flanged

Uptake: External diameter Thickness of uptake plate

Cross Tubes: No. External diameters { Thickness of plates

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

The foregoing is a correct description,

DEUTSCHE WERFT
AKTIENGESELLSCHAFT

Manufacturer.

Dates of Survey { During progress of work in shops - June: 6, July: 3, 7 August: 6, 14 Sept: 18 Is the approved plan of boiler forwarded herewith 7/4/30 (If not state date of approval.)

while building { During erection on board vessel - Sept: 23, October: 2, 16 Total No. of visits 9

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

This vertical Donkey Boiler has been constructed under Special Survey in accordance with the Society's Rules and the approved plans and instructions thereto. The material used in the construction and the workmanship are of good quality. The boiler has been tested under hydraulic pressure of 200 lb with satisfactory result. Under steam it was found tight and the safety valves have been adjusted to 100 lb. Distance of washers of safety valves: Port: 12 mm Starb: 9.6 mm

In my opinion this Boiler is eligible to be classed in the Society's Reg. Book with notation of "100 lb."

The approved plan will be transmitted after completion of the Yard's No. 143/44.

Survey Fee £ 4 : 4 : - When applied for 5.11.1930

Travelling Expenses (if any) £ - : - : - When received 12.12.1930

Committee's Minute Enl. 21 NOV 1930

Assigned See Mr Ham JE 19591

J. A. Wright
Engineer Surveyor to Lloyd's Register of Shipping.