

REPORT ON BOILERS.

No. 19591

10 NOV 1930

Received at London Office

Date of writing Report 23rd Oct, 1930 When handed in at Local Office

19 Port of HAMBURG

No. in Survey held at Hamburg

Date, First Survey 7th July, 1930

Last Survey 16th October, 1930

Reg. Book on the Steel Twin Sc. "KOLL"

(Number of Visits 6) Gross 10051

Tons Net 7019

Built at Hamburg

By whom built Deutsche Werft A.G.

Yard No. 142

When built 1930

Engines made at Augsburg

By whom made Maschfabr. Augsburg-Nürnberg

Engine No. A-5 330420/30

When made 1930

Boilers made at Hamburg

By whom made Deutsche Werft A.G.

Boiler No.

When made 1930

Owners Odd Bergs Tankrederi A/S

Port belonging to Oslo

VERTICAL DONKEY BOILER, combined with exhaust gas silencer & spark arrestor

Made at Hamburg By whom made Deutsche Werft A.G.

Boiler No. 441/42

When made 1930

Where fixed main engine room

Manufacturers of Steel Gutehoffnungshütte, Oberhausen. Tubes: Hammerichwerke, Brackwede

Total Heating Surface of Boiler 50 m² each

Is forced draught fitted no

Coal or Oil fired exhaust gas

No. and Description of Boilers 2 exhaust gas fired vert. Donkey Boilers comb. with silencer Working pressure 100 lb

Tested by hydraulic pressure to 200 lb

Date of test 12th September, 1930

No. of Certificate 521/22

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler 1, two springs loaded

Area of each set of valves per boiler { per rule 29.27 m² as fitted 29.27 m² }

Pressure to which they are adjusted 100 lb

Are they fitted with easing gear yes

State whether steam from main boilers can enter the donkey boiler no

Smallest distance between boiler or uptake and bunkers

or woodwork

Is oil fuel carried in the double bottom under boiler

Smallest distance between base of boiler and tank top plating not incl. shell crown

Is the base of the boiler insulated

Largest internal dia. of boiler 1400 mm Height 3336 mm

Shell plates: Material Siemens Martin Steel

Tensile strength 41-47 kg/mm²

Thickness 10 mm

Are the shell plates welded or flanged flanged

Description of riveting: circ. seams { end single row lower single row }

long. seams lap joint, double

Dia. of rivet holes in { circ. seams 20 mm long. seams 20 mm }

Pitch of rivets 55.37 mm

Percentage of strength of circ. seams 88.2

of Longitudinal joint { plate 69.2 rivets 88.2 combined 81- }

Working pressure of shell by rules 9.85 kg/cm²

Thickness of butt straps { outer lap joint inner }

Shell Crown: Whether complete hemispherical, dished partial spherical, or flat yes

Material S. M. Steel

Tensile strength 41-47 kg/mm²

Thickness 10 mm

Radius 1400 mm

Working pressure by rules 8.88 kg/cm²

Description of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

Thickness

External diameter { top bottom }

Length as per rule

Working pressure by rules

Pitch 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

Working pressure by rule

Thickness of Ogee Ring

Diameter as per rule { d }

Working pressure by rule

Combustion Chamber: Material

Tensile strength

Thickness of top plate

Radius if dished

Working pressure by rule

Thickness of back plate

Diameter if circular

Length 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

Tube Plates: Material { front S. M. Steel back }

Tensile strength 41-47 kg/mm²

Thickness 30 mm

Mean pitch of stay tubes in nests varying

If comprising shell, Dia. as per rule { front back }

Pitch in outer vertical rows

Dia. of tube holes FRONT { plain 63.5 mm stay }

BACK { plain stay }

Is each alternate tube in outer vertical rows a stay tube no

Working pressure by rules { 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 rule

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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* External diameter { plain *63.5 mm* or *lance 24 mm* Thickness { *4 mm* or *2 mm*

No. of threads per inch _____ Pitch of tubes *Section 33/4, F=390* Working pressure by rules *13.5 kg/cm²*

Manhole Compensation: Size of opening in shell plate *300 x 400 mm* Section of compensating ring *10 x 150 mm* No. of rivets and diameter of rivet holes *28, 20 mm* Outer row rivet pitch at ends *130 mm* Depth of flange if manhole flanged _____

Uptake: External diameter *580 mm* Thickness of uptake plate *15 mm*

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
AKTIEGESELLSCHAFT

Manufacturer.

Dates of Survey { During progress of work in shops - *July: 7, August: 6-14, Sept: 12-23* while building { During erection on board vessel - *October: 16-21*

Is the approved plan of boiler forwarded herewith *3/6/30*
(If not state date of approval.)

Total No. of visits *6*

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

These Donkey Boilers have been constructed under Special Survey in accordance with the Society's Rules, the approved plans and instructions thereto. The materials used in the construction and the workmanship are of good quality. The boilers have been tested under hydraulic pressure of 200 lb. with satisfactory result. Under steam they were found tight and the safety valves have been adjusted to 100 lb pressure. Distance of washers of safety valves:-

	forw.	aft.
Port Boiler	<i>15.1</i>	<i>16.3 mm</i>
Starb Boiler	<i>8.9</i>	<i>9. mm</i>

In my opinion these Donkey Boilers are eligible to be classed in the Society's Register Book with notation of DB "100 lb"

Survey Fee ... £ *8 : 8* When applied for, *5.11.30*

Travelling Expenses (if any) £ *- : -* When received, *12.12.30*

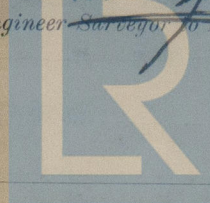
Committee's Minute

FRI. 21 NOV 1930

Assigned

See other Item 36 19591

Engineer-Surveyor to Lloyd's Register of Shipping.



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