

REPORT ON BOILERS.

No. 1341 a.

Received at London Office

28 MAR 1931

Date of writing Report 25th March 31 When handed in at Local Office

10

Port of Bremen

No. in Survey held at 1 main

Date, First Survey 15th Jan.

Last Survey 19th March 1931

Reg. Book

91067 on the STEEL TWIN SC "J.H. SENIOR"

(Number of Visits 5)

Gross 11900

Tons Net

Built at 1 main

By whom built Verein Stahl Nordr. u. Westf.

Yard No. 173

When built 1930/31

made at Kiel

By whom made Fried. Krupp - Germania Werke

Engine No. 3886

When made 1930

made at Hamburg

By whom made Deutsche Werke

Boiler No. 450/51

When made 1930

Katholik - Amerik. Petroleum Import G. m. b. H.

Port belonging to Hamburg.

Tachaut gas fired
TICAL DONKEY BOILER. combined with Lilmer & Sparks Arrestor.

at Hamburg By whom made Deutsche Werke A. G. Boiler No. 450/51 When made 1930 Where fixed engine space

Manufacturers of Steel Guthehoffnungsbau A. G. Oberhausen. Tubes: - Vereinigte Stahlwerke, Düsseldorf

Heating Surface of Boiler 60 m² each

Is forced draught fitted no

Coal or Oil fired Tachaut gas

Description of Boilers 2 vertical combined with Lilmer & Sparks Arrestor

Working pressure 100 lbs.

Tested by hydraulic pressure to 200 lbs.

Date of test 23rd Oct. 1930

No. of Certificate 527/28

No. of Firegrate in each Boiler

No. and Description of safety valves to each boiler 2 springs loaded.

No. of each set of valves per boiler { per rule Tachaut gas fired
as fitted 5655 m²

Pressure to which they are adjusted 100 lbs. Are they fitted with easing gear yes

Whether steam from main boilers can enter the donkey boiler

Smallest distance between boiler or uptake and bunkers

Work

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 1600 mm. Height 1696 mm.

Material Limmer Martin Steel

Tensile strength 41-47 kg/mm²

Thickness 11 mm.

The shell plates welded or flanged flanged

Description of riveting: circ. seams

Top single row

Bottom single row

Long. seams Lap joint double

No. of rivet holes in { circ. seams 23 mm.
long. seams 23 mm.

Pitch of rivets

66.6-68.3 mm

Percentage of strength of circ. seams

plate 65.5-66.5%

rivets 49.7-48.4%

Longitudinal joint

plate 67.2%

rivets 94.7%

combined 81.6%

Working pressure of shell by rules 7.98 kg/cm²Thickness of butt straps { outer
inner

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

Material Limmer Martin Steel

Tensile strength 41-47 kg/mm²

Thickness 15 mm

Radius 1600 mm.

Working pressure by rules 7.9 kg/cm²

Description of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

Thickness

External diameter

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

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

Tensile strength

Thickness

Mean pitch of stay tubes in nests varying

If comprising shell, Dia. as per rule

Pitch in outer vertical rows

Dia. of tube holes FRONT

stay 635 mm.

BACK stay

Is each alternate tube in outer vertical rows a stay tube

Working pressure by rules

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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Lloyd's Register

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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 *Solid drawn I.M. steel* External diameter { plain *63.5 mm.* or *Lantern 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/cm.²*

Manhole Compensation: Size of opening in shell plate *300 x 400 mm* Section of compensating ring *11 x 150 mm* No. of rivets and diameter of rivet holes *24 x 23 mm.* Outer row rivet pitch at ends *130 mm.* Depth of flange if manhole flanged ☒

Uptake: External diameter *630 mm.* Thickness of uptake plate *15 mm.*

Cross Tubes: No. ☒ External diameters { ☒ Thickness of plates ☒

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *Yes*

The foregoing is a correct description,

Thurthelphus Oettinger & Co Manufacturer
(signed) _____

Dates of Survey { During progress of work in shops - - } Is the approved plan of boiler forwarded herewith *Yes, and 2 certificates*
(If not state date of approval.)
while building { During erection on board vessel - - } Total No. of visits *5*

1931: Jan 15, 29, Feb 26, March 12, 19

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

Three wharf gas fired boilers are constructed under special survey in accordance with the Society's Rules, the approved plan and the Secretary's instructions thereto (please see Hamburg Surveyors Report No. 19582.)

They have been satisfactorily fitted on board examined under steam found tight and their safety valves have been adjusted to 100 lbs. pressure. They are eligible in my opinion to be classed in the Society's Register Book with record of "100 lbs."

Thickness of adjusting washers: Port Boiler Starboard Boiler

port	11 mm.	11 1/2 mm.
starboard	10 1/2 mm.	10 1/2 mm.

Survey Fee *15* £ *1* : *14* : } When applied for *26. 3.* *1931*
Travelling Expenses (if any) £ *1* : *0* : } When received, *8. 4.* *1931*

G. H. C. Kamo

Committee's Minute *TUE. 5 MAY 1931*
Assigned *See F. E. Rep.*