

REPORT ON BOILERS.

No. 1545

Received at London Office

26 AUG 1936

Date of writing Report

19

When handed in at Local Office

24. 8.

1936

Port of

GDYNIA

No. in
Reg. Book.

Survey held at

Elbing & Danzig

Date, First Survey

6th Dec. 1935

Last Survey

30th July, 1936.

(Number of Visits 15)

Gross 10443

Tons Net 5815

Master

Built at

Danzig

By whom built

F. Schichau Gm. b. H.

Hard No. 1350

When built 1936.

Engines made at

Elbing

By whom made

F. Schichau Gm. b. H.

Engine No.

When made 1936.

Boilers made at

- do -

By whom made

- do -

- do -

Boiler No. 3848

When made 1936.

Nominal Horse Power

912.

Owners

Deutsch-Amerikan. Petr. Ges.

Port belonging to

Hamburg

(varia Tankerschiff Rhed. Gm. b. H. Han).

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Kammismann Röhrenwerke, H. Pierron-Hütte, Huckingen.

(Letter for Record S. ✓)

Total Heating Surface of Boilers

130 sqm.

Is forced draught fitted ✓

Coal or Oil fired ✓

No. and Description of Boilers

1 horizontal cylindrical Donkey Boiler. ✓

Working Pressure 15 kgs. ✓

Tested by hydraulic pressure to

340 lbs.

Date of test

2. 4. 36.

No. of Certificate

3. ✓

Can each boiler be worked separately ✓

Area of Firegrate in each Boiler ✓

No. and Description of safety valves to each boiler

2 spring loaded.

Area of each set of valves per boiler

{ per Rule 2 x 28.6 sqcm
as fitted 2 x 38.5 }

Pressure to which they are adjusted 15 kgs. 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 ✓

2648 (plan)

Is the bottom of the boiler insulated yes. ✓

Largest internal dia. of boilers

2300 mm

Length

2650 mm

Shell plates: Material

Steel ✓

Tensile strength

44-53 kgs. ✓

Thickness

20 mm

Are the shell plates welded or flanged ✓

Description of riveting: circ. seams { end double
inter. ✓

long. seams

double ✓

Diameter of rivet holes in

{ circ. seams 26 mm ✓
long. seams 26 " ✓

Pitch of rivets

81 mm ✓

Percentage of strength of circ. end seams

{ plate 68%
rivets 54% ✓

Percentage of strength of circ. intermediate seam

{ plate ✓
rivets ✓

Percentage of strength of longitudinal joint

{ plate 83%
rivets 134% ✓
combined ✓

Working pressure of shell by Rules

15.22 kgs. ✓

Thickness of butt straps

{ outer 19 mm ✓
inner 19 " ✓

No. and Description of Furnaces in each Boiler

none. ✓

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

Steel ✓

Tensile strength

44-50 kgs. ✓

Thickness

25 mm ✓

Pitch of stays

350-360 mm ✓

How are stays secured

double nuts and washers. ✓

Working pressure by Rules

16.5 kgs ✓

Tube plates: Material

{ front steel ✓
back " ✓

Tensile strength

44-50 kgs. ✓

Thickness

25 " ✓

Mean pitch of stay tubes in nests

210 mm ✓

Pitch across wide water spaces

340 mm ✓

Working pressure

{ front 16.6 kgs ✓
back 16.6 " ✓

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

Steel ✓

Tensile strength

44-50 kgs. ✓

Thickness

25 mm ✓

Lower back plate: Material

Steel ✓

Tensile strength

44-50 kgs. ✓

Thickness

25 mm ✓

Pitch of stays at wide water space ✓

Are stays fitted with nuts or riveted over ✓

Working Pressure

16.6 kgs. ✓

Main stays: Material

steel ✓

Tensile strength

44-44 kgs. ✓

Diameter

{ At body of stay, 60 mm ✓
or Over threads 42 " ✓

No. of threads per inch

9. ✓

Area supported by each stay

1300-1490 sq cm

Working pressure by Rules

15 kgs. ✓

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, ☒ Over threads ☒

No. of threads per inch ☒ Area supported by each stay ☒ Working pressure by Rules ☒

Tubes: Material Steel External diameter ☒ Plain 44.5 mm Thickness ☒ 3.25 mm No. of threads per inch 9

Pitch of tubes 75 mm Working pressure by Rules 15 kgs Manhole compensation: Size of opening in shell plate 490 x 390 mm Section of compensating ring 1000 x 220 x 25 mm No. of rivets and diameter of rivet holes 34 of 26 mm

Outer row rivet pitch at ends 152 mm Depth of flange if manhole flanged 90 mm Steam Dome: Material Steel

Tensile strength 42,000 Thickness of shell 10 mm Description of longitudinal joint Butt joint

Diameter of rivet holes 26 mm Pitch of rivets 75 mm Percentage of strength of joint ☒ Plate ☒ Rivets

Internal diameter 400 mm Working pressure by Rules 15 kgs Thickness of crown 10 mm No. and diameter of stays 12 of 26 mm

How connected to shell By stays Inner radius of crown 100 mm Working pressure by Rules 15 kgs

Size of doubling plate under dome 1000 x 220 x 25 mm Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 26 mm

Type of Superheater Water tube Manufacturers of ☒ Tubes ☒ Steel castings

Number of elements 12 Material of tubes Steel Internal diameter and thickness of tubes 44.5 mm x 3.25 mm

Material of headers Steel Tensile strength 42,000 Thickness 10 mm 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 100 cm² Are the safety valves fitted with easing gear ☒ Working pressure as per Rules 15 kgs

Pressure to which the safety valves are adjusted 15 kgs Hydraulic test pressure: tubes 20 kgs castings 20 kgs and after assembly in place 20 kgs 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, S. Schilder Manufacturer.

Dates of Survey	During progress of work in shops - -	1935 Dec 6, 10	1936 Jan 31	Mar 6, 24	Apr 4, 8, 21	Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)	Forwarded from Stellen Office
while building	During erection on board vessel - - -	1936 Apr 30	May 28	June 25, 26	July 16, 29, 30	Total No. of visits	15

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.)

This Boiler has been built under Special Survey in accordance with the approved plan and the Society's Rules. Material and workmanship are of good quality. The Boiler was tested by hydraulic pressure to 340 lbs and found tight and sound in every respect. Also under steam it was tight, adjusted the safety valves to 15 kgs.

Mark on boilers No. 3.
LLOYD'S TEST
340 lbs
W.P. 214 lbs.
N.S. 8.4.36.
J.C.D.

(included in fee on rpt. 4B) Survey Fee RM 186.00 Applied for by Hamburg Office When applied for, 19

Travelling Expenses (if any) £ --- When received, 20.10.1936

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

Committee's Minute FRI. 4 SEP 1936
Assigned See fdy. 76.1545