

REPORT ON BOILERS.

No. 14380

Received at London Office

10 JUL 1920

Date of writing Report

192

When handed in at Local Office

192

Port of

No. in
Reg. Book.

Surrey held at

Rotterdam

Date, First Survey

Last Survey

192

on the

Hiel Leo Hamu, **BALTANNIC**

(Number of Visits

) Gross

Tons

Net

Master

Built at

Rotterdam

By whom built

Pott Drona May

Yard No.

When built

Engines made at

Rotterdam

By whom made

Pott Drona May

Engine No.

When made

1903

Boilers made at

Rotterdam

By whom made

Pott Drona May

Boiler No.

When made

1913

Nominal Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY, OR DONKEY~~

Manufacturers of Steel

Albion Tied, Knapp A.G. Essen.

(Letter for Record

5)

Total Heating Surface of Boilers

4372 sq ft

Is forced draught fitted

Coal or Oil fired

Coal

No. and Description of Boilers

1 Single ended multitubular Marine

Working Pressure

12.6 kg

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

57.5 sq ft

No. and Description of safety valves to each boiler

Two Spring loaded

Area of each set of valves per boiler

per boiler

as fitted

12.5 sq ft

Pressure to which they are adjusted

100 lbs

Are they fitted with easing gear

Yes

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

No Donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork

over 30"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

24"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

4572 mm

Length

3540 mm

Shell plates: Material

S.M. Steel

Tensile strength

44-50 kg

Thickness

32 mm

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end. lap 22 riv

long. seams Double butt 32 riv

Diameter of rivet holes in

circ. seams

31 mm

Pitch of rivets

03 mm

Percentage of strength of circ. end seams

plate

62.6 %

Percentage of strength of circ. intermediate seam

plate

49.6 %

Percentage of strength of longitudinal joint

plate

85.2 %

Working pressure of shell by Rules

12.9 kg

Thickness of butt straps

outer 12 mm

inner 12 mm

No. and Description of Furnaces in each Boiler

3 Deighton patent

Material

S.M. Steel

Tensile strength

29-45 kg

Smallest outside diameter

1069 mm

Length of plain part

top

bottom

Thickness of plates

crown

14 mm

Description of longitudinal joint

Welded

Dimensions of stiffening rings on furnace or c.c. bottom

L

Working pressure of furnace by Rules

13 kg

End plates in steam space: Material

S.M. Steel

Tensile strength

41-40 kg

Thickness

30 mm

Pitch of stays

419 x 45 mm

How are stays secured

Thread in plates and nuts outside

Working pressure by Rules

13.4 kg

Tube plates: Material

front S.M. Steel

back S.M. Steel

Tensile strength

39-45 kg

Thickness

19 mm

Pitch of stays

19 mm

Mean pitch of stay tubes in nests

197 x 195"

Pitch across wide water spaces

375 mm

Working pressure

front

back

Girders to combustion chamber tops: Material

S.M. Steel

Tensile strength

44-50 kg

Depth and thickness of girder

at centre

216 x 2 x 16 mm

Length as per Rule

752

Distance apart

216 mm

No. and pitch of stays

in each

2 x 203

Working pressure by Rules

12.6 kg

Combustion chamber plates: Material

S.M. Steel

Tensile strength

39-45 kg

Thickness: Sides

17 mm

Back

16 mm

Top

17 mm

Bottom

22 mm

Pitch of stays to ditto: Sides

203 mm

Back

178 x 195"

Top

203 x 216 mm

Are stays fitted with nuts or riveted over

Riveted over

Working pressure by Rules

11.7 kg

Front plate at bottom: Material

S.M. Steel

Tensile strength

40-40 kg

Thickness

19 mm

Lower back plate: Material

S.M. Steel

Tensile strength

41-48 kg

Thickness

19 mm

Pitch of stays at wide water space

352"

Are stays fitted with nuts or riveted over

Fitted with nuts

Working Pressure

18.7 kg

Main stays: Material

S.M. Steel

Tensile strength

41-48 kg

Diameter

At body of stay,

40 mm

Over threads

46 mm

No. of threads per inch

9

Area supported by each stay

19148 mm²

Working pressure by Rules

15.6 kg

Screw stays: Material

S.M. Steel

Tensile strength

41-48 kg

Diameter

At turned off part,

38 mm

Over threads

40 mm

No. of threads per inch

9

Area supported by each stay

35066

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Working pressure by Rules *16.4 kg* Are the stays drilled at the outer ends *No* Margin stays: Diameter { At turned off part, *51 mm*
Over threads }
No. of threads per inch *9* Area supported by each stay *52105 mm²* Working pressure by Rules *21.8 kg*
Tubes: Material *Steel* External diameter { Plain *40 mm* ✓ Thickness *6.11 mm* ✓ No. of threads per inch *14* ✓
Stay *40 mm* ✓
Pitch of tubes *98* *90 mm* ✓ Working pressure by Rules Manhole compensation: Size of opening in
shell plate *In end 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 *46 mm* 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
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 Manufacturers of { Tubes
Steel castings }
Number of elements Material of tubes Internal diameter and thickness of tubes
Material of headers Tensile strength Thickness 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 Are the safety valves fitted with easing gear Working pressure as per
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 23 inclusive for boilers been complied with

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - -)
while building { During erection on board vessel - -)

Are the approved plans of boiler and superheater forwarded herewith
(If not state date of approval.)

Total No. of visits

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

These boilers have been examined internally and externally, their mountings and safety valves and all found in order, all scantling found as per plans.

Survey Fee ... £
Travelling Expenses (if any) £

When applied for, 192
When received, 192

for *ew* *Bureau*
J. J. Ochoa
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 17 JUL 1925

FRI. 14 AUG 1925

TUES. 8 JUN 1926

FRI. 19 FEB 1926

Assigned



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