

Rpt. 5a.

REPORT ON BOILERS.

No. 7395

18 JAN 1927

Received at London Office

Date of writing Report

Jan 3

1927

When handed in at Local Office

Jan 10

1927

Port of

Trieste

No. in Reg. Book.

Survey held at

Venice

Date, First Survey

May 21

Last Survey

Dec 20

1926

80181

on the

S. S. Pleias

(Number of Visits

9)

Gross

416

Tons

Net

194

Master

Built at

Venice (Mestre)

By whom built

Loc. Ital. E. Breda

Yard No.

20

When built

1926

Engines made at

Altona-Ottensen

By whom made

Ottensener Eisenwerk A.G.

Engine No.

1271

When made

1926

Boilers made at

Milan

By whom made

Loc. Ital. E. Breda

Boiler No.

C/20

When made

1926

Nominal Horse Power

162

Owners

Loc. Ital. E. Breda

Port belonging to

Venice

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

See also Genoa Report No 9424

Manufacturers of Steel

Mannesmann-Röhrenwerke Abteilung Schulz Krauß

(Letter for Record

S)

Total Heating Surface of Boilers

125 m²2690 ft²

Is forced draught fitted

yes

Coal or Oil fired

coal

No. and Description of Boilers

Two S. E. marine

Working Pressure

14.0 kg/cm²

Tested by hydraulic pressure to

25 kg

Date of test

24.3.26

No. of Certificate

1748176

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

3.42 m²37 ft²

No. and Description of safety valves to each boiler

Two improved air spring loaded

Area of each set of valves per boiler

{ per Rule 7.80"

{ as fitted 7.810"

Pressure to which they are adjusted

14.0 kg

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

7'-

Is oil fuel carried in the double bottom under boilers

/.

Smallest distance between shell of boiler and tank top plating

no tank

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

3200 mm

Length

3250 mm

Shell plates: Material

steel

Tensile strength

47-53 kg

Thickness

23.5 mm

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end 8. Pl. lap

Long. seams

8 B trap ribble

Diameter of rivet holes in

{ circ. seams 28 mm

{ long. seams 28 mm

Pitch of rivets

92 mm

Percentage of strength of circ. end seams

{ plate 69.6

{ rivets 43.5

Percentage of strength of circ. intermediate seam

{ plate /.

{ rivets /.

Percentage of strength of longitudinal joint

{ plate 84.6

{ rivets 103.5

{ combined 89.9

Working pressure of shell by Rules

14.2 kg/cm²

Thickness of butt straps

{ outer 19 mm

{ inner 22 mm

No. and Description of Furnaces in each Boiler

2 corrugated

Material

steel

Tensile strength

41-47 kg/mm²

Smallest outside diameter

978 mm

Length of plain part

{ top /.

{ bottom /.

Thickness of plates

{ crown 14 mm

{ bottom 14 mm

Description of longitudinal joint

welded

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

none

Working pressure of furnace by Rules

14 kg

End plates in steam space: Material

steel

Tensile strength

41-47 kg

Thickness

25 mm

Pitch of stays

400 mm

How are stays secured

double nut and inclined washers

Working pressure by Rules

14.9 kg

Tube plates: Material

{ front steel

{ back steel

Tensile strength

41-47 kg

Thickness

{ 27 mm

{ 20 mm

Lean pitch of stay tubes in nests

198 mm

Pitch across wide water spaces

360 mm

Working pressure

{ front 17.4 kg

{ back 16.5 kg

Girders to combustion chamber tops: Material

steel

Tensile strength

44-55 kg/mm²

Depth and thickness of girder

centre

190x14 mm x 2

Length as per Rule

720 mm

Distance apart

200 mm

No. and pitch of stays

each

two 200 mm

Working pressure by Rules

14 kg

Combustion chamber plates: Material

steel

Tensile strength

41-47 kg/mm²

Thickness: Sides

17 mm

Back

17 mm

Top

17 mm

Bottom

17 mm

Pitch of stays to ditto: Sides

200x200 mm

Back

190x185 mm

Top

200x200 mm

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

14 kg/cm²

Front plate at bottom: Material

steel

Tensile strength

41-47 kg/mm²

Thickness

27 mm

Lower back plate: Material

steel

Tensile strength

41-47 kg/mm²

Thickness

25 mm

Pitch of stays at wide water space

390 mm

Are stays fitted with nuts or riveted over

nuts

Working Pressure

19.3 kg/cm²

Main stays: Material

steel

Tensile strength

44-50 kg/mm²

Diameter

{ At body of stay, 80 mm

{ Over threads

No. of threads per inch

6

Area supported by each stay

16000 mm²

Working pressure by Rules

21.9 kg/cm²

Screw stays: Material

steel

Tensile strength

41-47 kg/mm²

Diameter

{ At turned off part, /.

{ Over threads

38.1 mm

No. of threads per inch

9

Area supported by each stay

4000 mm²

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Working pressure by Rules 14.3 kg Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 or Over threads 47.6 mm
No. of threads per inch 9 Area supported by each stay 40000 mm² Working pressure by Rules 24.2 kg cm²
Tubes: Material Steel External diameter { Plain 76 mm Thickness { 4 mm No. of threads per inch 9
Stay 76 mm { 7, 8.5, 11 mm
Pitch of tubes 99 x 99 mm Working pressure by Rules 17.5 kg cm² Manhole compensation: Size of opening
shell plate 400 x 300 mm Section of compensating ring 225 x 25.5 mm No. of rivets and diameter of rivet holes 30 @ 28 mm
Outer row rivet pitch at ends 170 mm Depth of flange if manhole flanged 1 Steam Dome: Material none
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
stays Inner radius of crown Working pressure by Rules
How connected to shell Size of doubling plate under dome Diameter of rivet holes and
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
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
Rules Pressure to which the safety valves are adjusted Hydraulic test pressure
tubes, castings and after assembly in place Are drain cocks or valves
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,

Manufac

Dates of Survey { During progress of work in shops - - - Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 4.6.25
while building { During erection on board vessel - - - 1926 May 21, June 17, Aug 18, Sep 21, 22, Oct 30, Nov 15, Dec 16, 20, Total No. of visits nine

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) See also Genoa Report No 94
These Boilers have been made at Milan under special survey and satisfactorily fitted on board the vessel by Lantic Brada at Mestre. The boiler has been examined under steam and found in order.

Survey Fee See Genoa Rpt When applied for, 192
Travelling Expenses (if any) See Rpt 94 When received, 192

Committee's Minute

FRI. 21 JAN 1927

Assigned

See Rpt attached



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