

REPORT ON BOILERS.

No. 17214

Received at London Office 20 FEB 1928

Date of writing Report 2. 1928 When handed in at Local Office 1928

Port of Rotterdam

No. in Survey held at
Reg. Book.

Flushing

Date, First Survey 14.6.27

Last Survey 19.2.1928

1928

on the boiler for the "BEIJERLAND"

(Number of Visits 9)

Gross

Tons

Net

Master

Built at Amsterdam

By whom built

J. V. Schepman

Yard No. 498

When built 1928

Engines made at

Flushing

By whom made

Koninklijke "De Schelde"

Engine No. 388

When made 1928

Boilers made at

Flushing

By whom made

Koninklijke "De Schelde"

Boiler No. 9848

When made 1928

Nominal Horse Power

199

Owners

Schepman & Heentken

Port belonging to

Rotterdam

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY

Manufacturers of Steel

Henschel & Sohn, G. m. b. H.

(Letter for Record

S)

Total Heating Surface of Boilers

3510 sq ft

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

2 single ended multitubular marine boilers

Working Pressure

200 lb

Tested by hydraulic pressure to

350

Date of test

20.10.27

No. of Certificate

846

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

53.5 sq ft

No. and Description of safety valves to each boiler

2 spring loaded

Area of each set of valves per boiler

per boiler

as fitted

10.2 sq ft

Pressure to which they are adjusted

200 lb

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 4'

Is oil fuel carried in the double bottom under boilers

No double bottom

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

13' 6"

Length

10' 2"

Shell plates: Material

S. M. Steel

Tensile strength

44.1-50.4 kg/cm²

Thickness

31.7 mm

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end lap 2 x riv

long. seams

Double butt 3 x riv

Diameter of rivet holes in

circ. seams

31 mm

long. seams

33 mm

Pitch of rivets

3 1/2" 89 mm

Percentage of strength of circ. end seams

plate

65.2%

rivets

50.2%

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

85%

rivets

95.2%

combined

89.6%

Working pressure of shell by Rules

14.5 kg/cm²

Thickness of butt straps

outer 31.7 mm

inner 31.7 mm

No. and Description of Furnaces in each Boiler

2 Morrison's patent

Material

S. M. Steel

Tensile strength

41-47.5 kg/cm²

Smallest outside diameter

1046 mm

Length of plain part

top

bottom

Thickness of plates

crown

15.1 mm

Description of longitudinal joint

Welded

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

Working pressure of furnace by Rules

15.2 kg/cm²

End plates in steam space: Material

S. M. Steel

Tensile strength

41-47.5 kg/cm²

Thickness

22 mm

Pitch of stays

444 x 457 mm

How are stays secured

Screwed in plates with nuts outside

Working pressure by Rules

15.3 kg/cm²

Tube plates: Material

front

S. M. Steel

Tensile strength

41-47.5 kg/cm²

Thickness

23.8 mm

back

20.6 mm

Mean pitch of stay tubes in nests

222 mm

Pitch across wide water spaces

349 mm

Working pressure

front 17.6 kg/cm²back 17.6 kg/cm²

Girders to combustion chamber tops: Material

S. M. Steel

Tensile strength

44.1-50.4 kg/cm²

Depth and thickness of girder

at centre 205 x 2 x 19 mm

Length as per Rule

762 mm

Distance apart

190 mm

No. and pitch of stays

in each 3 x 190 mm

Working pressure by Rules

15.7 kg/cm²

Combustion chamber plates: Material

S. M. Steel

Tensile strength

41-47.5 kg/cm²

Thickness: Sides

16 mm

Pitch of stays to ditto: Sides

190 mm

Back

190 x 190

Top

190 x 190

Bottom

25.4 mm

Working pressure by Rules

18.2 kg/cm²

Front plate at bottom: Material

S. M. Steel

Tensile strength

41-47.5 kg/cm²

Thickness

19 mm

Pitch of stays at wide water space

349 mm

Are stays fitted with nuts or riveted over

Fitted with nuts

Working Pressure

21.8 kg/cm²

Diameter

At body of stay, 40 mm

No. of threads per inch

9

Area supported by each stay

202908 mm²

Working pressure by Rules

15 kg/cm²

Screw stays: Material

S. M. Steel

Tensile strength

41-47.5 kg/cm²

Diameter

At turned off part, 38 mm

No. of threads per inch

9

Area supported by each stay

36100 mm²

Working pressure by Rules

15 kg/cm²

Screw stays: Material

S. M. Steel

Tensile strength

41-47.5 kg/cm²

Diameter

At turned off part, 38 mm

No. of threads per inch

9

Area supported by each stay

36100 mm²

Working pressure by Rules

15 kg/cm²

Screw stays: Material

S. M. Steel

Tensile strength

41-47.5 kg/cm²

Diameter

At turned off part, 38 mm

No. of threads per inch

9

Area supported by each stay

36100 mm²

Working pressure by Rules

15 kg/cm²

Screw stays: Material

S. M. Steel

Tensile strength

41-47.5 kg/cm²

Diameter

At turned off part, 38 mm

No. of threads per inch

9

Area supported by each stay

36100 mm²

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Working pressure by Rules *15.64* Are the stays drilled at the outer ends *Yes* Margin stays: Diameter { At turned off part, *40 mm*
 No. of threads per inch *9* Area supported by each stay *66510 mm²* Working pressure by Rules *14.85*
 Tubes: Material *Steel* External diameter { Plain *5 1/4"* Thickness *5/16"* No. of threads per inch *10*
 Pitch of tubes *111 mm* Working pressure by Rules *150 lbs* Manhole compensation: Size of opening in
 shell plate *350 x 450 mm* Section of compensating ring *119 x 25.4 mm* No. of rivets and diameter of rivet holes *40 à 19 mm*
 Outer row rivet pitch at ends *152 mm* Depth of flange if *ring* flanged *70 mm* Steam Dome: Material *Steel*
 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 *Yes*

The foregoing is a correct description,
 KON.MY. "DEPOSE" DE " " Manufacturer.

Dates of Survey { During progress of work in shops - - - *14 21 30 24 5 22 7 20*
 while building { During erection on board vessel - - - *On machinery report* Are the approved plans of boiler and superheater forwarded herewith *Yes*
 (If not state date of approval.) *2-3-27*
 Total No. of visits *8*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been made under special survey, material tested as required, workmanship good, all in accordance with the Society's Rules, approved plans and Secretary's letters*

Survey Fee ... £ *On machinery report* When applied for, 192
 Travelling Expenses (if any) £ *report* When received, 192

Committee's Minute

TUES. 6 MAR 1928

Assigned

See Spt. attached



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