

REPORT ON BOILERS.

No. 22862.

Received at London Office

28 APR 1934

Date of writing Report 18.4.1934 When handed in at Local Office

192

Port of Rotterdam

No. in Survey held at
Reg. Book.

Rotterdam

Date, First Survey

1.2.34

Last Survey

19.4.1934

(Number of Visits 21)

Tons { Gross
Net

on the new boats S.S. SINT ANNALAND

Master

Built at

Schiedam

By whom built

A. T. Mulders

Yard No.

When built

Engines made at

Schiedam

By whom made

A. T. Mulders

Engine No.

When made

Boilers made at

Rotterdam

By whom made

Rott Drossel My

Boiler No.

517-18

When made 1934

Nominal Horse Power

Owners

Schepers & Heenkelen My

Port belonging to

Rotterdam

MULTITUBULAR BOILERS—MAIN, ~~STEAM~~, ~~SEA~~ ~~WATER~~.

Manufacturers of Steel Mannesmann röhren Werke (Letter for Record S ✓)

Total Heating Surface of Boilers

3710 ft²

Is forced draught fitted

no

Coal or Oil fired

Coal.

No. and Description of Boilers

2 single ended multitubular marine

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lb

Date of test

6.4.34

No. of Certificate

959

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

102 ft²

No. and Description of safety valves to each boiler

2 spring loaded

Area of each set of valves per boiler

per Rule
as fitted

140"

Pressure to which they are adjusted

180 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

Smallest distance between boilers or uptakes and bunkers or woodwork

Over 18"

Is oil fuel carried in the double bottom under boilers

No

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

11' 0"

Shell plates: Material

S. M. Steel

Tensile strength

28-32 tons

Thickness

1 1/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

lap. 2 x riv

long. seams

Double butt strap 3 x riv

Diameter of rivet holes in

circ. seams

1 1/16"

Pitch of rivets

3 3/4"

Percentage of strength of circ. end seams

plate

67.2 %

rivets

44.6 %

Percentage of strength of circ. intermediate seam

plate

✓

rivets

✓

Percentage of strength of longitudinal joint

plate

85.6 %

rivets

92.8 %

combined

89.7 %

Working pressure of shell by Rules

183 lbs

Thickness of butt straps

outer

7/8"

inner

1"

No. and Description of Furnaces in each Boiler

3 Monsoon patent

Material

S. M. Steel

Tensile strength

26-30 tons

Smallest outside diameter

3' 8 1/2"

Length of plain part

top

✓

bottom

✓

Thickness of plates

crown

1 1/2"

bottom

1 3/2"

Description of longitudinal joint

Welded.

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

no

Working pressure of furnace by Rules

185 lbs

End plates in steam space: Material

S. M. Steel

Tensile strength

26-30 tons

Thickness

1 5/32"

Pitch of stays

18 x 16 1/2"

How are stays secured

Screwed in plates with nuts outside

Working pressure by Rules

192 lbs

Tube plates: Material

front

S. M. Steel

back

S. M. Steel

Tensile strength

26-30 tons

Thickness

3/4"

Mean pitch of stay tubes in nests

8 3/4 x 10 1/8"

Pitch across wide water spaces

1' 3 1/2"

Working pressure

front 193 lbs
back

Girders to combustion chamber tops: Material

S. M. Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

8 x 1 x 3/4"

Length as per Rule

1' 5"

Distance apart

8 1/2"

No. and pitch of stays

in each

2 x 9"

Working pressure by Rules

205 lbs

Combustion chamber plates: Material

S. M. Steel.

Tensile strength

26-30 tons

Thickness: Sides

1 1/16"

Back

1 1/16"

Top

1 1/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

9 x 1 1/8"

Back

7 1/2 x 8 1/2"

Top

9 x 8 1/2"

Are stays fitted with nuts or riveted over

riveted over.

Working pressure by Rules

217 lbs

Front plate at bottom: Material

S. M. Steel

Tensile strength

26 x 30 tons

Thickness

1 3/16"

Lower back plate: Material

S. M. Steel

Tensile strength

26-30 tons

Thickness

3/4"

Pitch of stays at wide water space

14 1/8"

Are stays fitted with nuts or riveted over

Fitted with nuts.

Working Pressure

354 lbs

Main stays: Material

S. M. Steel

Tensile strength

28-32 tons

Diameter

At body of stay,

2 9/16"

Over threads

2 3/4"

No. of threads per inch

9

Area supported by each stay

2880"

Working pressure by Rules

196 lbs

Screw stays: Material

S. M. Steel

Tensile strength

26-30 tons

Diameter

At turned off part,

1 1/2"

Over threads

1 1/2"

No. of threads per inch

9

Area supported by each stay

back 63 3/4"
 sides 64 1/8"

Working pressure by Rules 196 lb Are the stays drilled at the outer ends No Margin stays: Diameter ^{At turned off part,} 7 1/4" ^{or} Over threads 7 1/4"

No. of threads per inch 9 Area supported by each stay 950" Working pressure by Rules 195 lb

Tubes: Material Steel External diameter ^{Plain} 5 1/4" ^{Stay} 5 1/4" Thickness 21/64" 19/32" No. of threads per inch 9

Pitch of tubes 4 7/8" x 4 7/16" Working pressure by Rules 180 lb Manhole compensation: Size of opening in shell plate 16 3/4" x 20 3/4" Section of compensating ring manhole 8 1/4" x 1 1/8" No. of rivets and diameter of rivet holes 42 at 1 1/16"

Outer row rivet pitch at ends 6 1/4" Depth of flange if manhole flanged 5 1/2" 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 -

How connected to shell - Inner radius of crown - Working pressure by Rules -

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,
 ROTTERDAMSCHЕ DROOGMAK MAATSCHAPPIJ
 Director, J. H. Mape Manufacturer.

Dates of Survey ^{During progress of work in shops - -} 1/8/19/14/21/27/3/5/4/12/17/24/27/28/3 Are the approved plans of boiler and superheater forwarded herewith Retained
 (If not state date of approval.) 1-1-34

^{while building} ^{During erection on board vessel - - -} 7/4/9/10/14/19/34 Total No. of visits 21

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been made in accordance with the approved plan, Society's Rules and Secretary's letters, material tested as required and workmanship good, tested by hydraulic pressure as required and found sound and tight

Survey Fee ... 197.60 When applied for, 192
 Travelling Expenses (if any) 10.00 When received, 18.5 192 34
Thed.

J. J. Ochoo
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 8 MAY 1934
 Assigned