

5a.

REPORT ON BOILERS.

No. 28970^d

17 SEP 1945

Received at London Office

Writing Report 11-12 1940 When handed in at Local Office

Port of Rotterdam

Survey held at Rotterdam

Date, First Survey 1939

Last Survey 31-1 1940

on the M.V. "PAPENDRECHT"

(Number of Visits) Gross Tons Net

Built at Rotterdam

By whom built Huis Roth Droogdok Maatschappij No. 1220 When built 1939-40

Engels By whom made Gebroeders Hoek

Engine No. 4377 When made 1940

Rotterdam By whom made Roth Droogdok Maatschappij

R.D.M. No. 577

Boiler No. 1026 When made 1940

Net Horse Power 633

Owners "Stoom Maatschappij de Haas"

Port belonging to Rotterdam

LATTICULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

(Letter for Record S)

Heating Surface of Boilers 180 m²

Is forced draught fitted Yes

Coal or Oil fired oil

Description of Boilers one cyl. boiler, two morison furnaces

Working Pressure 12,65 kg/cm²

Tested by hydraulic pressure to 22,5 kg/cm²

Date of test No. of Certificate

Can each boiler be worked separately Yes

of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Cockburn High lifting

of each set of valves per boiler

per Rule 4010 for 14C.

as fitted 5024 mH Pressure to which they are adjusted

Are they fitted with easing gear Yes

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

Is oil fuel carried in the double bottom under boilers no

Least distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated Yes

Least internal dia. of boilers 3960 mH

Length 3505 mH

Shell plates: Material SM steel

Tensile strength 44-51 kg/cm²

Thickness 27,5 mH

Are the shell plates welded or flanged no

Description of riveting: circ. seams end double

Seams Double butt strap 3x riv.

Diameter of rivet holes in circ. seams 30 mH

long. seams 30 "

Pitch of rivets 97 mH

Percentage of strength of circ. end seams

plate 69 rivets 70

Percentage of strength of circ. intermediate seam

plate rivets

Percentage of strength of longitudinal joint

plate 85,36 rivets 96,1 combined 90

Working pressure of shell by Rules 12,73 kg/cm²

Thickness of butt straps

outer 26 mH inner 26 mH

No. and Description of Furnaces in each Boiler 2 Morison furnaces

Material SM steel

Tensile strength 41-47 kg/cm²

Smallest outside diameter 1136 mH

Thickness of plain part

top bottom Thickness of plates crown bottom 14

Description of longitudinal joint welded

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

Working pressure of furnace by Rules 12,65 kg/cm²

Plates in steam space: Material SM steel

Tensile strength 41-47 kg/cm²

Thickness 28,5 mH

Pitch of stays 381 x 432 mH

Are stays secured nuts

Working pressure by Rules 14,3 kg/cm²

Plates: Material front back SM steel

Tensile strength 41-47 kg/cm²

Thickness 21 mH 19 mH

Working pressure front back 14,2 kg/cm²

Pitch of stay tubes in nests 306 x 204 mH

Pitch across wide water spaces 374 mH

Working pressure front back

Stays to combustion chamber tops: Material SM steel

Tensile strength 44-51 kg/cm²

Depth and thickness of girder

Centre 216 x 2 x 19 mH

Length as per Rule 800 mH

Distance apart 216 mH

No. and pitch of stays

Each 2 x 254 mH

Working pressure by Rules 15,7 kg/cm²

Combustion chamber plates: Material SM steel

Tensile strength 41-47 kg/cm²

Thickness: Sides 22 mH

Back 19 mH

Top 22 mH

Bottom 22 mH

Are stays fitted with nuts or riveted over both

Pitch of stays to ditto: Sides 254 x 247 mH

Back 203 x 197 mH

Top 216 x 254 mH

Are stays fitted with nuts or riveted over both

Working pressure by Rules 24 kg/cm²

Front plate at bottom: Material SM steel

Tensile strength 41-47 kg/cm²

Thickness 21,4 mH

Lower back plate: Material SM steel

Tensile strength 41-47 kg/cm²

Thickness 19 mH

Pitch of stays at wide water space 396 x 197 mH

Are stays fitted with nuts or riveted over nutted

Working Pressure 13,8 kg/cm²

Main stays: Material SM steel

Tensile strength 44-51 kg/cm²

At body of stay 2 1/2 "

Over threads 3 "

No. of threads per inch 9

Area supported by each stay 273456 mm²

Working pressure by Rules 15,5

Screw stays: Material SM steel

Tensile strength 41-47 kg/cm²

Thickness 254 x 247 mH

At turned off part 1 1/2 "

Over threads 1 1/2 "

No. of threads per inch 9

Area supported by each stay 203 x 197

Working pressure by Rules 13, 1 kg/cm² Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part.} 1 3/4" = 1 7/8"
 No. of threads per inch 9 Area supported by each stay 59.100 Working pressure by Rules 13, 9 kg/cm²
 Tubes: Material SM steel External diameter ^{Plain} 2 3/4" Thickness 4 mm No. of threads per inch 9
 Pitch of tubes 102 x 102 mm Working pressure by Rules 19, 5 kg/cm² Manhole compensation: Size of opening 42
 shell plate 425 x 526 mm Section of compensating ring 721 x 812 x 28, 5 mm No. of rivets and diameter of rivet holes 32 x 30 mm
 Outer row rivet pitch at ends 100 mm Depth of flange if manhole flanged 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}
 Internal diameter Working pressure by Rules Thickness of crown No. and diameter of rivets
 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
 Number of elements Material of tubes Steel forgings
 Material of headers Tensile strength Steel castings
 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 forgings and castings and after assembly in place Are drain 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

The foregoing is a correct description,
J. P. De Putter *J. K. Knaat*

Dates of Survey ^{During progress of work in shops - -} Various dates during Are the approved plans of boiler and superheater forwarded herewith
 while building ^{During erection on board vessel - - -} 1939 - 1940 Total No. of visits

Is this Boiler a duplicate of a previous case If so, state Vessel's name and Report No. _____

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been made under special Survey as per Society's Rules, approved plans and Secretary's letters, materials tested as required and workmanship found good.

Survey Fee ... 153.60 } When applied for, 19. 12 19 40
 Travelling Expenses (if any) £ 1. 07. 00 } When received, 19

J. P. De Putter *A. Hasselt*
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 18 JAN 1946
 Assigned See No. 100484



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