

REPORT ON BOILERS.

No. 28970^d

17 SEP 1945

Received at London Office

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

10 Port of Rotterdam

of op

Survey held at Rotterdam

Date, First Survey 1939

Last Survey 31-1 1940

on the MV "PAPENDRECHT"

(Number of Visits) Gross Tons Net

Built at Rotterdam

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

Hingels By whom made Gebroeders

Engine No. 4377 When made 1940

Rotterdam By whom made Roth Droogdok Maatschappij

R.D.M. No. 577

Boiler No. 1026 When made 1940

Horse Power 633

Owners Huis Roth Droogdok Maatschappij

Port belonging to Rotterdam

L TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Heating Surface of Boilers 180 m²

Is forced draught fitted Yes

(Letter for Record S)

Coal or Oil fired oil

Description of Boilers one cyl. boiler, two morison furnaces

Working Pressure 12,65 kg/cm²Tested by hydraulic pressure to 22,5 kg/cm²

Date of test

No. of Certificate

Can each boiler be worked separately Yes

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.

Pressure to which they are adjusted

Are they fitted with easing gear Yes

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

Least distance between boilers or uptakes and bunkers or woodwork

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 396 mm

Length 3505 mm

Shell plates: Material SM steel

Tensile strength 44-51 kg/cm²

Thickness 27,5 mm

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 mm

Pitch of rivets 97 mm

Percentage of strength of circ. end seams

plate 69

rivets 70

Percentage of strength of circ. intermediate seam

Percentage of strength of longitudinal joint

plate 85,36

rivets 96,1

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

Thickness of butt straps

outer 26 mm

inner 26 mm

combined 90

R.D.M. No. 577 = 2

Material SM steel

Tensile strength 41-47 kg/cm²

Smallest outside diameter 1136 mm

Thickness of plain part

top

bottom

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 mm

Pitch of stays 381 x 432 mm

Are stays secured nuts

Plates: Material front SM steel

Tensile strength 41-47 kg/cm²

back SM steel

Thickness 21 mm

Pitch of stay tubes in nests 306 x 204 mm

Pitch across wide water spaces 374 mm

Working pressure front 14,2 kg/cm²

Boilers to combustion chamber tops: Material SM steel

Tensile strength 44-51 kg/cm²

Depth and thickness of girder

Centre 216 x 2 x 19 mm

Length as per Rule 800

Distance apart 216 mm

Pitch 2 x 254 mm

Working pressure by Rules 15,7 kg/cm²

Combustion chamber plates: Material SM steel

Tensile strength 41-47 kg/cm²

Thickness: Sides 22 mm

Back 19 mm

Top 22 mm

Bottom 22 mm

Pitch of stays to ditto: Sides 254 x 247 mm

Back 203 x 197 mm

Top 216 x 254 mm

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 19 mm

Lower back plate: Material SM steel

Tensile strength 41-47 kg/cm²

Thickness 19 mm

Pitch of stays at wide water space 396 x 197 mm

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 mm

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 mm

Working pressure by Rules *13, 16 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 *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 ✓ Rivets ✓*
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 *✓*
Number of elements *✓* Material of tubes *✓* Internal diameter and thickness of tubes *✓*
Material of headers *✓* Tensile strength *✓* Thickness *✓* Can the superheater be shut off from the boiler *✓*
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 cocks 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,
x [Signature] J. K. [Signature] Manufacturer

Dates of Survey *During progress of work in shops - - - Various dates during 1939 - 1940* Are the approved plans of boiler and superheater forwarded herewith *✓*
while building *During erection on board vessel - - -* (If not state date of approval.) 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 ... *155.60* When applied for, *19.12 1940*
Travelling Expenses (if any) £ *1.50.00* When received, *19*

Committee's Minute

FRI. 18 JAN 1946

Assigned

See No. 100484

J. K. [Signature] A. Hassell
Engineer Surveyor to Lloyd's Register of Shipping
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