

REPORT ON BOILERS.

No. 16918^c

Received at London Office

MAY 24 1938

Date of writing Report 27.4.1938 When handed in at Local Office

102

Port of

Rotterdam

No. in Survey held at

Rotterdam

Date, First Survey

8.4.37

Last Survey

4.12.1938

Reg. Book.

on the

Donkey boiler

MV. CLEA

(Number of Visits 14)

Gross

8028

Net

4725

Master

Built at

Rotterdam

By whom built

Pott Droogd My

Yard No.

198

When built 1938

Engines made at

Amsterdam

By whom made

Werkhoven

Engine No.

703

When made 1938

Boilers made at

Rotterdam

By whom made

Pott Droogd My

Boiler No.

541

When made 1937

Nominal Horse Power

502

Owners

Pelsmy. La Corona

Port belonging to

Gravenhage

MULTITUBULAR BOILERS ~~MAIN~~, ~~AUXILIARY~~, OR DONKEY.

Manufacturers of Steel

The Steel Co of Scotland

(Letter for Record S)

Total Heating Surface of Boilers

2560 sq

Is forced draught fitted

yes

Coal or Oil fired

Oil

No. and Description of Boilers

One Multitubular Marine Boiler

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lb

Date of test

4.12.37

No. of Certificate

1002

Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2 Spring loaded

Area of each set of valves per boiler

per Rule

as fitted

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

Smallest distance between boilers or uptakes and bunkers or woodwork

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

4400 mm

Length

3400 mm

Shell plates: Material

S.M. Steel

Tensile strength

46.8-52 kg/mm²

Thickness

29 mm

Are the shell plates welded or flanged

welded at outer ends

Description of riveting: circ. seams

end Lap 2 x 200

long. seams

Double butt strap 3 x 200

Diameter of rivet holes in

circ. seams 30 mm

Pitch of rivets

87 mm

Percentage of strength of circ. end seams

plate 65%

rivets 50%

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 85%

rivets 85%

Working pressure of shell by Rules

12.8 kg/cm²

Thickness of butt straps

outer 25 mm

inner 15 mm

No. and Description of Furnaces in each Boiler

3 Morrison patent

Material

S.M. Steel

Tensile strength

41-47 kg/mm²

Smallest outside diameter

1130 mm

Length of plain part

top

bottom

Thickness of plates

crown 15 mm

bottom 15 mm

Description of longitudinal joint

Welded

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

Working pressure of furnace by Rules

13.22 kg/cm²

End plates in steam space: Material

S.M. Steel

Tensile strength

41-47 kg/mm²

Thickness

29 mm

Pitch of stays

440-450 mm

How are stays secured

Ternax in plates with nuts outside

Working pressure by Rules

12.65 kg/cm²

Tube plates: Material

front S.H. steel

back S.H. steel

Tensile strength

41-47 kg/mm²

Thickness

23 mm

Mean pitch of stay tubes in nests

100 x 294 mm

Pitch across wide water spaces

560 mm

Working pressure

front 17.8 kg/cm²

back

Girders to combustion chamber tops: Material

S.H. steel

Tensile strength

44-50 kg/mm²

Depth and thickness of girder

at centre

220 x 2 x 19 mm

Length as per Rule

776 mm

Distance apart

220 mm

No. and pitch of stays

in each

3 x 200 mm

Working pressure by Rules

17.2 kg/cm²

Combustion chamber plates: Material

S.H. steel

Tensile strength

41-47 kg/mm²

Thickness: Sides

10 mm

Back

19 mm

Top

18 mm

Bottom

Pitch of stays to ditto: Sides

250 mm

Back

200 x 195 mm

Top

200 x 220 mm

Are stays fitted with nuts or riveted over

Riveted over

Working pressure by Rules

15.5 kg/cm²

Front plate at bottom: Material

S.H. steel

Tensile strength

41-47 kg/mm²

Thickness

23 mm

Pitch of stays at wide water space

560 mm

Are stays fitted with nuts or riveted over

Fitted with nuts

Working Pressure

17.7 kg/cm²

Main stays: Material

S.H. steel

Tensile strength

41-47 kg/mm²

Diameter

At body of stay, 3"

Over threads

3 1/4"

No. of threads per inch

9

Area supported by each stay

190000 mm²

Working pressure by Rules

15.5 kg/cm²

Screw stays: Material

S.H. steel

Tensile strength

41-47 kg/mm²

Diameter

At turned off part, 1 3/8"

Over threads

1 1/2"

No. of threads per inch

9

Area supported by each stay

40000 mm²

Lloyd's Register

W374-0124

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Working pressure by Rules 14.1 kg/cm^2 Are the stays drilled at the outer ends ☒ Margin stays: Diameter { At turned off part, $1 \frac{7}{16}$ "
Over threads $1 \frac{5}{8}$ "
No. of threads per inch 9 Area supported by each stay 500 cm^2 Working pressure by Rules 14.1 kg/cm^2
Tubes: Material Iron External diameter { Plain $2 \frac{3}{4}$ " Thickness 12.9 L.S.G.
Stay $2 \frac{3}{4}$ " No. of threads per inch 9
Pitch of tubes $98 \times 100 \text{ mm}$ Working pressure by Rules 215 lb Manhole compensation: Size of opening in
shell plate $570 \times 470 \text{ mm}$ Section of compensating ring $700 \times 880 \times 32 \text{ mm}$ No. of rivets and diameter of rivet holes $54 \times 32 \text{ mm}$
Outer row rivet pitch at ends 220 mm Depth of flange if manhole flanged 100 mm 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 ☒ 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 ☒

DE ROTTERDAMSCH E BROODKOK MIL
Directeur *H. Knape*

The foregoing is a correct description,
Manufacturer.

Dates of Survey { During progress of work in shops - - - 2/20/28 3/25/28 4/20/28 5/16/28 6/19/28 7/19/28 8/16/28 9/19/28
while building { During erection on board vessel - - - 2/26/28 3/15/28 4/11/28 5/11/28
Total No. of visits 14

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler has been made
in accordance with the approved plan, Society-Rules and Secretary's letters.
Material tested as required and workmanship good.

Survey Fee ... 204.80
Travelling Expenses (if any) 1.00
When applied for, 22.5 1928
When received, 23.6 1928

H. J. Pellice
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned
TUE. 31 MAY 1938
See Rot. 26. 26918