

REPORT ON BOILERS.

No. 27107^c

Received at London Office

JUL 25 1938

Date of writing Report 15. 7. 1938 When handed in at Local Office

192

Port of Rotterdam

No. in Reg. Book.

Survey held at

Date, First Survey

19. 5. 34.

Last Survey

18. 1. 1938

on the

Donkey boiler MV CLEODORA

(Number of Visits 20)

Gross 7236

Net 4724

Master

Built at

Flushing

By whom built

Hon Mr. De Schelde

Yard No. 206

When built 1938

Engines made at

Amsterdam

By whom made

Werkspoor

Engine No. 702

When made 1938

Boilers made at

Flushing

By whom made

Hon Mr. De Schelde

Boiler No. 1042

When made 1938

Nominal Horse Power

Owners

Scholuum My. ha 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 ft ✓

Is forced draught fitted

Yes ✓

Coal or Oil fired

Oil. ✓

No. and Description of Boilers

One multitubular marine boiler. ✓

Working Pressure

180 lb. ✓

Tested by hydraulic pressure to

320 lb.

Date of test

18. 1. 38

No. of Certificate

1006

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 90 mm

Pressure to which they are adjusted

180 lb. ✓

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

3460 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

Description of riveting: circ. seams

end lap 2 x riv ✓

long. seams

Double butt straps 3 x riv ✓

Diameter of rivet holes in

circ. seams 30 mm ✓

Pitch of rivets

87 mm ✓

Percentage of strength of circ. end seams

plate 85% ✓

rivets 50% ✓

Percentage of strength of circ. intermediate seam

plate 85% ✓

rivets 50% ✓

Percentage of strength of longitudinal joint

plate 85% ✓

rivets 85% ✓

combined 87% ✓

Working pressure of shell by Rules

12.8 kg/cm² ✓

Thickness of butt straps

outer 25 mm ✓

inner 25 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 29 mm ✓

Thickness of plates

crown 15 mm ✓

Description of longitudinal joint

Welded ✓

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

✓

Working pressure of furnace by Rules

13.21 kg/cm² ✓

End plates in steam space: Material

S. M. Steel ✓

Tensile strength

41.47 kg/mm² ✓

Thickness

29.5 mm ✓

Pitch of stays

440.410 mm ✓

How are stays secured

Secured in plates with nuts outside & inside ✓

Working pressure by Rules

12.65 kg/cm² ✓

Tube plates: Material

front S. M. Steel ✓

back S. M. Steel ✓

Tensile strength

41.47 kg/mm² ✓

Thickness

23 mm ✓

Pitch of stays

17.8 kg/cm² ✓

Mean pitch of stay tubes in nests

196 x 300 mm ✓

Pitch across wide water spaces

360 mm ✓

Working pressure

front 17.8 kg/cm² ✓

back 23 mm ✓

Girders to combustion chamber tops: Material

S. M. Steel ✓

Tensile strength

44.50 kg/mm² ✓

Depth and thickness of girder

at centre

120 x 12 x 19 mm ✓

Length as per Rule

476 mm ✓

Distance apart

220 mm ✓

No. and pitch of stays

in each

3 x 220 mm ✓

Working pressure by Rules

17.2 kg/cm² ✓

Combustion chamber plates: Material

S. M. Steel ✓

Tensile strength

41.47 kg/mm² ✓

Thickness: Sides

18 mm ✓

Back

19 mm ✓

Top

18 mm ✓

Bottom

25 mm ✓

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

15.3 kg/cm² ✓

Front plate at bottom: Material

S. M. Steel ✓

Tensile strength

41.47 kg/mm² ✓

Thickness

23 mm ✓

Lower back plate: Material

S. M. Steel ✓

Tensile strength

41.47 kg/mm² ✓

Thickness

23 mm ✓

Pitch of stays at wide water space

366 mm ✓

Are stays fitted with nuts or riveted over

Fitted with nuts ✓

Working Pressure

17.7 kg/cm² ✓

Main stays: Material

S. M. Steel ✓

Tensile strength

44.50 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. M. 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 ✓

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Working pressure by Rules 14.1 kg/cm² Are the stays drilled at the outer ends Yes Margin stays: Diameter { At turned off part, 1 1/16" or Over threads 1 7/8" }
 No. of threads per inch 9 Area supported by each stay 50096 mm² Working pressure by Rules 14.1 kg/cm²
 Tubes: Material Iron External diameter { Plain 2 3/4" Stay 2 3/4" } Thickness 5/16" No. of threads per inch 9
 Pitch of tubes 98 x 100 mm Working pressure by Rules 14.1 kg/cm² Manhole compensation: Size of opening in shell plate 370 x 470 mm Section of compensating ring 780 x 880 x 32 mm No. of rivets and diameter of rivet holes 54 x 32 mm
 Outer row rivet pitch at ends 120 mm Depth of flange if manhole flanged 100 mm Steam Dome: Material Iron
 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 ✓

The foregoing is a correct description,

M.V. Kon. Min. „De Schelde“

Manufacturer.

Dates of Survey { During progress of work in shops - - - }
 while building { During erection on board vessel - - - }

Are the approved plans of boiler and superheater forwarded herewith Retained
 (If not state date of approval.)

Total No. of visits 20

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

Survey Fee ... 205.00
 Travelling Expenses (if any) 1.6.00

When applied for, 10/7/1923
 When received, 3/8/1923

Committee's Minute

FRI 29 JUL 1938

Assigned

See Rot. J.E. 27107



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