

## REPORT ON BOILERS.

No. 15412

Received at London Office

3 AUG 1926

Writing Report 24. 4 1926 When handed in at Local Office

192

Port of Rotterdam

Survey held at

Bolnes

Date, First Survey

6. 9. 20

Last Survey

6. 5.

1926

on the

Steel Screw Steamer "GROENLO"

(Number of Visits 10)

Gross  
Tons  
Net

Built at

Bolnes

By whom built

Boelers Scheepswerf en  
Mach. fabriek

Yard No.

119

When built

1926

es made at

Bolnes

By whom made

A. V. Boelers Scheepswerf en  
Mach. fabriek

Engine No.

46

When made

1926

s made at

Bolnes

By whom made

A. V. Boelers Scheepswerf en  
Mach. fabriek

Boiler No.

57.58

When made

1926

al Horse Power

Owners

A. V. Hoozemans, Noorder

Port belonging to

Amsterdam

TUBULAR BOILERS—MAIN, ~~HEATING~~, OR ~~DONKEY~~

Facturers of Steel

Huttengerellschaft

Rotterdam

(Letter for Record

S)

Heating Surface of Boilers

3654 sq

Is forced draught fitted

no

Coal or Oil fired

Coal

Description of Boilers

2 Single ended Multitubular Marine boilers

Working Pressure

180 lbs

by hydraulic pressure to

270 lbs

Date of test

6. 5. 26

No. of Certificate

838

Can each boiler be worked separately

Yes

Firegrate in each Boiler

61 sq

No. and Description of safety valves to each boiler

2 Spring loaded

of each set of valves per boiler

(per Rule

11.7

Pressure to which they are adjusted

180 lbs

Are they fitted with easing gear

Yes

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

No donkey boiler

st distance between boilers or uptakes and bunkers or woodwork

over 20"

Is oil fuel carried in the double bottom under boilers

No

st distance between shell of boiler and tank top plating

28"

Is the bottom of the boiler insulated

Yes

internal dia. of boilers

3400 mill

Length

3150 mill

Shell plates: Material

J. M. Steel

Tensile strength

120.32 tons

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end Lap 2 x riv

ams Double butt 3 x riv

Diameter of rivet holes in

circ. seams

1 1/8"

long. seams

1 5/16"

Pitch of rivets

3 3/8"

8 3/4"

age of strength of circ. end seams

plate

66.6%

rivets

80%

Percentage of strength of circ. intermediate seam

plate

85%

rivets

93.8%

age of strength of longitudinal joint

plate

85%

rivets

93.8%

combined

98.4%

Working pressure of shell by Rules

12.78 kg

ss of butt straps

outer 29 mill

inner 29 mill

No. and Description of Furnaces in each Boiler

3 Morisons patent

of plain part

top

c

Thickness of plates

crown

14 1/2 mill

bottom

Description of longitudinal joint

Welded

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

None

Working pressure of furnace by Rules

16.4 kg

ites in steam space: Material

J. M. Steel

Tensile strength

26.5-30 tons

Thickness

27 mill

Pitch of stays

480 x 450

e stays secured

Secured in plates with washers and nuts outside

Working pressure by Rules

12.7 kg

ates: Material

front J. M. Steel

back J. M. Steel

Tensile strength

24.28 tons

Thickness

23 mill

20 mill

ch of stay tubes in nests

324 x 216 mill

Pitch across wide water spaces

375 mill

Working pressure

front 13.8 kg

back

to combustion chamber tops: Material

J. M. Steel

Tensile strength

26.5-32 tons

Depth and thickness of girder

225 x 2 x 19 mill

Length as per Rule

800 mill

Distance apart

210 mill

No. and pitch of stays

3 x 180 mill

Working pressure by Rules

17 kg

Combustion chamber plates: Material

J. M. Steel

strength

24.28 tons

Thickness: Sides

16 mill

Back

17 mill

Top

16 mill

Bottom

25 mill

stays to ditto: Sides

180 mill

Back

190 x 180 mill

Top

180 x 210 mill

Are stays fitted with nuts or riveted over riveted

pressure by Rules

12.8 kg

Front plate at bottom: Material

J. M. Steel

Tensile strength

26.5-30 tons

23 mill

Lower back plate: Material

J. M. Steel

Tensile strength

26.5-30 tons

Thickness

23 mill

stays at wide water space

350 mill

Are stays fitted with nuts or riveted over

Fitted with nuts

Pressure

19.2 kg

Main stays: Material

J. M. Steel

Tensile strength

26 1/2-30 1/2 tons

At body of stay

16 mill

Over threads

81 mill

No. of threads per inch

10

Area supported by each stay

206400 mill<sup>2</sup>

pressure by Rules

12.8 kg

Screw stays: Material

J. M. Steel

Tensile strength

26 1/2-30 1/2 tons

At turned off part

1 1/8"

Over threads

56 mill

No. of threads per inch

9

Area supported by each stay

32400 mill<sup>2</sup>34200 mill<sup>2</sup>31800 mill<sup>2</sup>Lloyds Register  
Foundation  
KTH-0136



Working pressure by Rules 15.2169 Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 1/8" or 1 1/2" Over threads 1 1/8" 1 1/2"  
No. of threads per inch 9 Area supported by each stay 51300 mds Working pressure by Rules 14169  
Tubes: Material Steel External diameter { Plain 3 1/4" Stay 3 1/4" Thickness { 5/16" No. of threads per inch 10  
Pitch of tubes 100 mds Working pressure by Rules ✓ Manhole compensation: Size of opening ✓  
shell plate 530 x 690 mds Section of compensating ring 2 1/2 x 2 1/2 mds No. of rivets and diameter of rivet holes 48 in 30"  
Outer row rivet pitch at ends 150 mds Depth of flange if manhole flanged 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 staybolts ✓  
stays ✓ Inner radius of crown ✓ Working pressure by Rules ✓ Diameter of rivet holes ✓  
How connected to shell ✓ Size of doubling plate under dome ✓  
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 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 ✓  
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, ✓  
on Machinery report ✓

Dates of Survey { During progress of work in shops -- 6/9 26/10 1/11 20/11 21/11 24/11 29 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 18.8.20  
while building { During erection on board vessel -- 29/12 25/1/26 Total No. of visits 10  
on machinery report ✓

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been made in accordance with the Society's Rules, approved plans and Secretary's letters, materials tested and workmanship good

Survey Fee ... On Machinery report When applied for, 192  
Travelling Expenses (if any) £ report When received, 192

Committee's Minute

Assigned

See Report attached

FRI. 6 AUG. 1926

Engineer/Surveyor to Lloyd's Register of



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