

REPORT ON BOILERS.

No. 15512^B

JAN 18 1939

Received at London Office

Date of writing Report 9 January 1939 When handed in at Local Office

Port of Amsterdam

No. in Reg. Book. Survey held at

Amsterdam

Date, First Survey

26 Sept 1938

Last Survey

19 30

on the Single Screw M.V. NIGERSTROOM

(Number of Visits 9)

Tons }
Gross }
Net }

Master

Built at

Krupp's Yard

By whom built

N.V. C. & G. van der Meer

Yard No. 656

When built

1938/39

Engines made at

Amsterdam

By whom made

N.V. Werkspoor

Engine No. 731

When made

1938/39

Boilers made at

Amsterdam

By whom made

N.V. Werkspoor

Boiler No. 2847

When made

1938

Nominal Horse Power

618

Owners

N.V. Hollandische Stoomv. M^o

Port belonging to

Amsterdam

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

Manufacturers of Steel

Mess Deutsche Röhrenwerke A.G. Werk Pilsen

Milheim

(Letter for Record)

Total Heating Surface of Boilers

75 M² = 807 ft²

Is forced draught fitted

yes

Coal or Oil fired oil fired

No. and Description of Boilers

one horizontal Marine type

Working Pressure

7 kg/cm² = 100 lbs

Tested by hydraulic pressure to

200 lbs

Date of test

16-12-38

No. of Certificate

436

Can each boiler be worked separately

L

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

4 of spring loaded high lifting

Area of each set of valves per boiler

per Rule 2940 m²/m² 2 x 50 mm diam.

as fitted 3100 m²/m² 3927 m²

Pressure to which they are adjusted

100 lb

Are they fitted with easing gear

yes

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

L

Smallest distance between boilers or uptakes and bunkers or woodwork

L

Is oil fuel carried in the double bottom under boilers

L

Smallest distance between shell of boiler and tank top plating

L

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

2850 mm

Length

2840 mm

Shell plates: Material

SMS

Tensile strength 49.3/52.5 kg/cm²

Thickness

13 mm

Are the shell plates welded or flanged

L

Description of riveting: circ. seams

end Single

long. seams

air butt straps

Diameter of rivet holes in

circ. seams 23 mm

long. seams 20 mm

Pitch of rivets

54 mm

80 mm

Percentage of strength of circ. end seams

plate 59

rivets 42

Percentage of strength of circ. intermediate seam

plate L

rivets L

Percentage of strength of longitudinal joint

plate 75

rivets 84

combined

Working pressure of shell by Rules

7.35 kg

Thickness of butt straps

outer 13 mm

inner 13 mm

No. and Description of Furnaces in each Boiler

2 Morrison's

Material

SMS

Tensile strength

41.47 kg

Smallest outside diameter

770 mm

Length of plain part

top L

bottom L

Thickness of plates

crowns 10 mm

bottom 10 mm

Description of longitudinal joint

welded

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

L

Working pressure of furnace by Rules

12.9 kg

End plates in steam space: Material

SMS

Tensile strength 42.8/44.7

Thickness

20 mm

Pitch of stays 450 mm

How are stays secured

dbl nuts + washers

Working pressure by Rules

9.1 kg

Tube plates: Material

front SMS

back SMS

Tensile strength

41.47 kg

Thickness

20 mm

17 mm

Mean pitch of stay tubes in nests

200 mm

Pitch across wide water spaces

360 mm

Working pressure

front 8.1 kg

back 9.2 kg

Girders to combustion chamber tops: Material

SMS

Tensile strength 44.50 kg

Depth and thickness of girder

at centre

190 mm x 2 x 17 mm

Length as per Rule

600 mm

Distance apart 2 x 280 - 1 x 200 mm

No. and pitch of stays

in each

one

Working pressure by Rules

8.6 kg

Combustion chamber plates: Material

SMS

Tensile strength

41.47 kg

Thickness: Sides

15 mm

Back

15 mm

Top

15 mm

Bottom 15 mm

Pitch of stays to ditto: Sides

200 mm

Back

199 mm

Top

200 mm

Are stays fitted with nuts or riveted over riveted over

Working pressure by Rules

7.35 kg

Front plate at bottom: Material

SMS

Tensile strength 41.47 kg

Thickness

20 mm

Lower back plate: Material

S.M.S.

Tensile strength 41.47 kg

Thickness

20 mm

Pitch of stays at wide water space

320 mm x 155 mm

Are stays fitted with nuts or riveted over riveted over

Working Pressure

12.8 kg/cm²

Main stays: Material

SMS

Tensile strength 44.50 kg

Diameter

At body of stay, -

or

Over threads 2 1/4"

No. of threads per inch

8

Area supported by each stay 20200 mm²

Working pressure by Rules

7.75 kg

Screw stays: Material

SMS

Tensile strength 41.47 kg

Diameter

At turned off part, -

or

Over threads 1 1/4"

No. of threads per inch

11

Area supported by each stay 42500 mm²

Working pressure by Rules *8.5 kg* Are the stays drilled at the outer ends *no* Margin stays: Diameter *At turned off part, 1 1/2" x 1 1/4"*
 No. of threads per inch *11* Area supported by each stay *72000 x 41600 m²* Working pressure by Rules *7.85 kg + 0.7 kg*
 Tubes: Material *SMS* External diameter *Plain 2 3/4"* Thickness *3.65 m/m* No. of threads per inch *11*
Stay 2 3/4" Thickness *7.95 m/m*
 Pitch of tubes *100 x 100 mm* Working pressure by Rules *15 kg* Manhole compensation: Size of opening in
 shell plate *375 x 475 mm* Section of compensating ring *80 cm²* No. of rivets and diameter of rivet holes *40-25 mm*
 Outer row rivet pitch at ends *(100 mm)* Depth of flange if manhole flanged *75 mm* Steam Dome: Material *c*
 Tensile strength *-* Thickness of shell *2* Description of longitudinal joint *-*
 Diameter of rivet holes *c* Pitch of rivets *c* Percentage of strength of joint *Plate c*
Rivets c
 Internal diameter *c* Working pressure by Rules *c* Thickness of crown *c* No. and diameter of
 stays *c* Inner radius of crown *c* Working pressure by Rules *c*
 How connected to shell *c* 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 *Werkspoor N.V.*
 Tubes *-*
 Steel forgings *-*
 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 *-* forgings and 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 22 inclusive for boilers been complied with *-*

WERKSPoor N.V. *Mr. M. M. M. M. M.* The foregoing is a correct description, *Manufacture*

Dates of Survey *During progress of work in shops - - Sat 26. 6. 1910. For 2. D. 1. D. 25* Are the approved plans of boiler and superheater forwarded herewith
while building During erection on board vessel - - - - - Dec 6-7. 16. (If not state date of approval.)
 Total No. of visits *-*

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The Boiler has been built under special survey, in accordance with the rules & Secretary's letter, workmanship throughout good. Material duly tested

*The Boiler has been shipped to Krumpen of Yseland and will be fitted aboard on M/V. d. Gussen's 2nd Yard No. 656
 The boiler has been satisfactorily fitted on board of the m.v. "Nigertroom" of Willmar*

Survey Fee ... *65-* : } When applied for, *17-1-1910*
 Travelling Expenses (if any) *£* : } When received, *6-2-1910*

B. M. M. M.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 21 APR 1939*
 Assigned *See P.F. machy rpt.*

