

REPORT ON BOILERS.

No. 15738^c

AUG -4 1939

Received at London Office

Date of writing Report 10 July 1939 When handed in at Local Office

10

Port of Amsterdam

No. in Reg. Book. Survey held at

Amsterdam

Date, First Survey

2 Sept. 1938

Last Survey

26 July

1939

35105 on the Steel Single Screw M.V. "TIBIA"

(Number of Visits 20)

Tons

Gross

1035.6

Net

6146.81

Master

Built at

Amsterdam

By whom built

N.V. Nederl. Scheepb. Yard No. 272

When built

1939

Engines made at

Amsterdam

By whom made

N.V. Werkspoor

Engine No. 743

When made

1939

Boilers made at

Amsterdam

By whom made

N.V. Werkspoor

Boiler No. 2027/120

When made

1939

Nominal Horse Power

620

Owners

N.V. Petroleum M^t. La Carona

Port belonging to

Sgravenhage

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

Manufacturers of Steel

The Broomside Steelworks, Deutsche Röhrenwerke

A.C. Werk Phystun

(Letter for Record L 5)

Total Heating Surface of Boilers

2 x 203 M² = 4360 M²

Is forced draught fitted

Yes

Coal or Oil fired

oil

No. and Description of Boilers

2 Multitubular single ended

Working Pressure

18.65 kg/cm²

Tested by hydraulic pressure to

320.485

Date of test

10-2-39

No. of Certificate

437-38

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

L

No. and Description of safety valves to each boiler 2 Spring loaded.

Area of each set of valves per boiler

per Rule

as fitted 2 x 80 mm M²

Pressure to which they are adjusted

180.485

Are they fitted with easing gear

Yes

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

No main boilers

Smallest distance between boilers or uptakes and bunkers or woodwork

✓

Is oil fuel carried in the double bottom under boilers

No.

Smallest distance between shell of boiler and tank top plating

✓

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

3900 mm M²

Length

3700 mm M²

Shell plates: Material

SMS

Tensile strength

47.55 kg

Thickness

27 mm M²

Are the shell plates welded or flanged

✓

Description of riveting: circ. seams

end abt welded

long. seams

dbl butt joints

Diameter of rivet holes in

circ. seams 20 mm M²

long. seams

20 mm M²

Pitch of rivets

85 mm M²

Percentage of strength of circ. end seams

plate 67

rivets 42.2

Percentage of strength of circ. intermediate seam

plate ✓

rivets ✓

Percentage of strength of longitudinal joint

plate 85.64

rivets 80

combined 80.4

Working pressure of shell by Rules

13.6 kg

Thickness of butt straps

outer 23 mm M²

inner

23 mm M²

No. and Description of Furnaces in each Boiler

Two Morrison's

Material

SMS

Tensile strength

41-47 kg

Smallest outside diameter

1150 mm M²

Length of plain part

top ✓

Thickness of plates

crown

15 mm M²

Description of longitudinal joint

welded

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

L

Working pressure of furnace by Rules

13.6 kg

End plates in steam space: Material

SMS

Tensile strength

41-47 kg

Thickness

27 mm M²

Pitch of stays

400 x 450

How are stays secured

double nuts

Working pressure by Rules

13 kg

Tube plates: Material

front SMS

back

Tensile strength

41-47 kg

Thickness

23 mm M²22 mm M²

Mean pitch of stay tubes in nests

247 mm M²

Pitch across wide water spaces

370 mm M²

Working pressure

front 14.6 kg

back 14.2 kg

Girders to combustion chamber tops: Material

SMS

Tensile strength

44.50 kg

Depth and thickness of girder

at centre

220 x 30 mm M²

Length as per Rule

700 mm M²

Distance apart

225 mm M²

No. and pitch of stays

in each

3. 200 mm M²

Working pressure by Rules

15 kg

Combustion chamber plates: Material

SMS

Tensile strength

41-47 kg

Thickness: Sides

19 mm M²

Back

19 mm M²

Top

19 mm M²

Bottom

25 mm M²

Pitch of stays to ditto: Sides

200 x 200

Back

195-203 mm M²

Top

200 x 225 mm M²

Are stays fitted with nuts or riveted over

riveted over top nuts

Working pressure by Rules

14.0 kg

Front plate at bottom: Material

SMS

Tensile strength

41-47 kg

Thickness

23 mm M²

Lower back plate: Material

SMS

Tensile strength

41-47 kg

Thickness

23 mm M²

Pitch of stays at wide water space

370 x 177 mm M²

Are stays fitted with nuts or riveted over

with nuts

Working Pressure

10 kg

Main stays: Material

SMS

Tensile strength

44.50 kg

Diameter

At body of stay, or

2 3/4"

No. of threads per inch

8

Area supported by each stay

1800 cm²

Working pressure by Rules

14 kg

Screw stays: Material

SMS

Tensile strength

41-47 kg

Diameter

At turned off part, or

1 1/2"

No. of threads per inch

9

Area supported by each stay

395 cm²

005377-005386-0014

Lloyd's Register Foundation

Working pressure by Rules 14.3 kg Are the stays drilled at the outer ends Yes Margin stays: Diameter { At turned off part, or Over threads 1 5/8" ✓

No. of threads per inch 9 Area supported by each stay 500 cm² Working pressure by Rules 13.0 kg

Tubes: Material Steel External diameter { Plain 2 3/4" Stay 2 3/4" Thickness { 3.65 mm ✓ 5/16" and 2-7/16" No. of threads per inch 9 ✓

Pitch of tubes 100 x 90 mm Working pressure by Rules 15 kg Manhole compensation: Size of opening in shell plate 390 x 490 Section of compensating ring 179 cm² No. of rivets and diameter of rivet holes 54- 32 mm

Outer row rivet pitch at ends 220 mm Depth of flange if manhole flanged 00 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 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

The foregoing is a correct description,

WERSPOOR N.V.

[Signature]

Manufacturer.

Dates of Survey { During progress of work in shops - - Sept 2 Oct 7 Nov 8-18 Dec 6 Jan 16 Are the approved plans of boiler and superheater forwarded herewith 14-2-20 ✓

while building { During erection on board vessel - - - - - April 4 June 7-15 July 12-25 (If not state date of approval.) Total No. of visits 20

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 Boilers have been made under special survey in accordance with approved plans & Secretary letter. Material duly tested workmanship good. The Boilers have been efficiently secured on a special made platform in Motorroom & good.

Survey Fee ... £ : : When applied for, 19

Travelling Expenses (if any) £ : : When received, 19

[Signature]

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 11 AUG 1939

Assigned See FK. machy rft

