

REPORT ON BOILERS.

No. 15293^C

Received at London Office

JUN 10 1930

Date of writing Report 3 June 1930 When handed in at Local Office

19

Port of Amsterdam

No. in Survey held at Reg. Book.

Amsterdam

Date, First Survey

7 Sept.

Last Survey

24 May

1930

on the Single Screw Motor Vessel "CARELIA"

(Number of Visits 14)

Gross 8033
Net 4724

Master

Built at

Amsterdam

By whom built

N. V. Ned. Scheepb. W. Yard No. 266 When built 1930

Engines made at

Amsterdam

By whom made

N. V. Werkhoven

Engine No. 701

When made 1930

Boilers made at

Amsterdam

By whom made

N. V. Werkhoven

Boiler No. 2787

When made 1930

Nominal Horse Power

502

Owners

N. V. Petroleum M^t Co. Carona Port belonging to 's Gravenhage

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Shell of Scotland Broomside Boiler works CH (Letter for Record)

Total Heating Surface of Boilers

2560

Is forced draught fitted

Yes

Coal or Oil fired oil fired

No. and Description of Boilers

one horizontal Multitubular boiler

Working Pressure 180 lbs

Tested by hydraulic pressure to

320 LBS

Date of test

8-1-30

No. of Certificate

417

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 approved

as fitted 1960 sq in

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

600 mm

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

4400 mm

Length

3460

Shell plates: Material

SMS

Tensile strength 29.75/33 ton

Thickness

29 mm

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end abutted

long. seams

dbl butt shops

Diameter of rivet holes in

circ. seams 30 mm

long. seams 30 mm

Pitch of rivets

87 mm

Percentage of strength of circ. end seams

plate 67.52
rivets 42.3

Percentage of strength of circ. intermediate seam

plate
rivets

Percentage of strength of longitudinal joint

plate 85
rivets 85
combined 87

Working pressure of shell by Rules 104 lbs.

Thickness of butt straps

outer 25 mm
inner 25 mm

No. and Description of Furnaces in each Boiler

3 Morrison's furnaces

Material

SMS

Tensile strength

26-30 ton

Smallest outside diameter

1130 mm

Length of plain part

top
bottom

Thickness of plates

crown
bottom

15 mm

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules 193 LBS.

End plates in steam space: Material

S. M. S.

Tensile strength

26-30 ton

Thickness

29 mm

Pitch of stays 440 x 450 mm.

How are stays secured

dbl nuts

Working pressure by Rules

Tube plates: Material

front SMS
back SMS

Tensile strength

26-30 ton

Thickness

23 mm

Mean pitch of stay tubes in nests

240 mm

Pitch across wide water spaces

360 mm

Working pressure

front 230 lbs
back 210 lbs

Girders to combustion chamber tops: Material

SMS

Tensile strength

26-32 ton

Depth and thickness of girder

at centre 220 x 30 mm

Length as per Rule

700 mm

Distance apart

220 mm

No. and pitch of stays

in each 3. 200

Working pressure by Rules

210 lbs

Combustion chamber plates: Material

SMS

Tensile strength

26-30 ton

Thickness: Sides

10 mm

Back

19 mm

Top

10 mm

Bottom

25 mm

Pitch of stays to ditto: Sides

200 x 200 mm

Back

226 x 195 mm

Top

200 x 220 mm

Are stays fitted with nuts or riveted over

riveted over

Working pressure by Rules

196 lbs

Front plate at bottom: Material

SMS

Tensile strength

26-30 ton

Thickness

23 mm

Lower back plate: Material

SMS

Tensile strength

26-30 ton

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

190 lbs

Main stays: Material

SMS

Tensile strength

26-32 ton

Diameter

At body of stay,
or
Over threads

3"

No. of threads per inch

8

Area supported by each stay

306 sq in

Working pressure by Rules

220 lbs

Screw stays: Material

SMS

Tensile strength

26-30 ton

Diameter

At turned off part,
or
Over threads

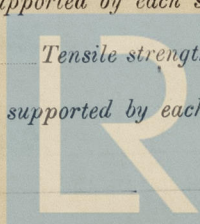
1 1/2"

No. of threads per inch

11

Area supported by each stay

60.25 sq in



Working pressure by Rules 185 lbs Are the stays drilled at the outer ends Yes Margin stays: Diameter At turned off part, 1 5/8"
 No. of threads per inch 11 Area supported by each stay 77.5 sq" Working pressure by Rules 196 lbs
 Tubes: Material Iron External diameter 2 3/4" Thickness Nº 9 25g No. of threads per inch 11
 Pitch of tubes 100 x 90 Working pressure by Rules 195 lbs & 225 lbs Manhole compensation: Size of opening in
 shell plate 370 x 470 Section of compensating ring 370" 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 80 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
 Internal diameter _____ Working pressure by Rules _____ Thickness of crown _____ Rivets _____ 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 casing 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 _____

WERKSPOR N.V.

The foregoing is a correct description,

Manufacturer.

Dates of Survey During progress of work in shops - - Sept 7. 20 Oct 8 Dec 8. 17. 22. 24 Jan 9. Are the approved plans of boiler and superheater forwarded herewith 10. 1. 37
while building During erection on board vessel - - March 8. 12. April 5. 23. May 19. 24 Total No. of visits 14
 (If not state date of approval.)

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. MK. ONOBA Ans up 151266.

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

The Boiler has been made in accordance with approved plan,
& Secretary's letter and in accordance with the Society's rules
Material duly tested, workmanship throughout good
Boiler hydraulic tested as per rules found sound & tight
Properly fastened aboard, placed in Motor room aft, in separate
boiler room on a special made tween deck

Survey Fee ... £ : : When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

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

Committee's Minute

FRI 17 JUN 1938

Assigned

See Ans. J.E. 15293



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