

REPORT ON BOILERS.

No. 95252

20 APR 1929

Received at London Office

Date of writing Report

192

When handed in at Local Office

192

Port of

No. in
Reg. Book.

Survey held at Birkenhead

Date, First Survey

14/3/28

Last Survey

3/4/

1929

on the Twin S.S. "Lady Rodney"

(Number of Visits 136)

Gross 7650 8193.

Tons Net 4936.

Master

Built at

Birkenhead

By whom built

Cammell Laird & Co Ltd

Yard No. 944

When built 1929

Engines made at

Birkenhead

By whom made

Cammell Laird & Co Ltd

Engine No. 945

When made 1929

Boilers made at

Birkenhead

By whom made

Cammell Laird & Co Ltd

Boiler No. 944

When made 1929

Indicated Horse Power

959 1094.

Owner

Canadian National S.S. Co Ltd

Port belonging to

Montreal

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

David Colville & Sons Ltd

(Letter for Record S)

Total Heating Surface of Boilers

13500 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

oil

No. and Description of Boilers

4 Cylindrical multitubular

Working Pressure

220 lb sq in

Tested by hydraulic pressure to

380 lb sq in

Date of test

27.8.28

No. of Certificate

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

two spring loaded - high lift

Area of each set of valves per boiler

per Rule high lift

Pressure to which they are adjusted

220 lb

Are they fitted with easing gear

Yes

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

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

15"

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

21"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

16'-6"

Length

12'-0"

Shell plates: Material

Steel

Tensile strength

29-33 tons sq in

Thickness

1 5/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end OR lap

Pitch of rivets

treble Riv. Double butt diameter of rivet holes in

circ. seams 1 1/8"

Pitch of rivets

4-355"

Percentage of strength of circ. end seams

plate 60.2

rivets 50.1

Percentage of strength of circ. intermediate seam

plate

Percentage of strength of longitudinal joint

plate 83.97

rivets 97.5

combined 87.3

Working pressure of shell by Rules

223 lb sq in

Thickness of butt straps

inner 1 3/8"

No. and Description of Furnaces in each Boiler

four Corrugated

4 C.F.

Material

Steel

Tensile strength

26-30 tons sq in

Smallest outside diameter

3'-5"

Thickness of plates

crown 5/8"

Description of longitudinal joint

weld

Dimensions of stiffening rings on furnace or on bottom

none

Working pressure of furnace by Rules

222 lb sq in

Plates in steam space: Material

Steel

Tensile strength

26-30 tons sq in

Thickness

1 3/16"

Pitch of stays

19 1/2" x 16 1/2"

Are stays secured

Double Nuts & plain washers

Working pressure by Rules

228 lb sq in

Plates: Material

front Steel

back Steel

Tensile strength

26-30 tons sq in

Thickness

1 1/32"

Working pressure

front 295 lb sq in

back 274 lb sq in

Pitch of stay tubes in nests

9'-6 5/8"

Pitch across wide water spaces

13 3/4"

Working pressure

front 295 lb sq in

back 274 lb sq in

Plates to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons sq in

Depth and thickness of girder

2 plates 8 3/4" x 13"

Length as per Rule

2'-7 1/2"

Distance apart

8 7/8" max

No. and pitch of stays

Working pressure by Rules

220 lb sq in

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons sq in

Thickness: Sides

2 1/32"

Back

2 1/32"

Top

2 1/32"

Bottom

15 1/16"

Pitch of stays to ditto: Sides

8" x 8"

Back

7" x 9 1/8"

Top

8 7/8" x 7 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

227 lb sq in

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons sq in

Thickness

1 1/32"

Lower back plate: Material

Steel

Tensile strength

26-30 tons sq in

Thickness

15 1/16"

Pitch of stays at wide water space

14 7/8" x 7"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

267 lb sq in

Main stays: Material

Steel

Tensile strength

28-32 tons sq in

At body of stay, or

3 1/8"

No. of threads per inch

6

Area supported by each stay

322 sq in

Working pressure by Rules

229 lb sq in

Screw stays: Material

Steel

Tensile strength

26-30 tons sq in

At turned off part, or

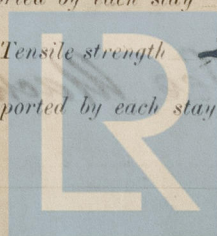
1 5/8"

No. of threads per inch

9

Area supported by each stay

64 sq in



Working pressure by Rules **236 lb** Are the stays drilled at the outer ends **no** Margin stays: Diameter **1 7/8"** At turned off part, or Over threads **1 7/8"**

No. of threads per inch **9** Area supported by each stay **840"** Working pressure by Rules **254 lb**

Tubes: Material **B.B. Iron** External diameter **2 3/4"** Thickness **1/8"** No. of threads per inch **9**

Pitch of tubes **3 7/8" x 3 7/8"** Working pressure by Rules **246 lb** Manhole compensation: Size of opening

shell plate **22" x 18"** Section of compensating ring **1 1/2" x 1 7/8"** No. of rivets and diameter of rivet holes **36 x 1 1/16"**

Outer row rivet pitch at ends **10 1/2"** Depth of flange if manhole flanged **3 1/2"** 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

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 **Superheater Co RB type** Manufacturers of **Superheater Co Ltd Manchester**

Number of elements **90 railboilers** Material of tubes **Solid drawn steel** Internal diameter and thickness of tubes **1 5/8" 3/16"**

Material of headers **wrot. steel** Tensile strength **26-30 tons** Thickness **7/8"** Can the superheater be shut off

the boiler be worked separately **Yes** Is a safety valve fitted to every part of the superheater which can be shut off from the boiler **Yes**

Area of each safety valve **3.14 sq"** Are the safety valves fitted with easing gear **Yes** Working pressure as

Rules **220 lb** Pressure to which the safety valves are adjusted **220 lb** Hydraulic test press

tubes **1200 lb** Castings **6600 lb** and after assembly in place **4400 lb** Are drain cocks or valves

to free the superheater from water where necessary **Yes**

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

CAMMEL FORECOING IS A CORRECT DESCRIPTION,

Manufactured

Dates of Survey **During progress of work in shops - -**

while building **During erection on board vessel - -**

See Machinery report

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

Total No. of visits **136**

LOCAL SECRETARY.

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

These boilers have been constructed under special Survey, are in accordance with the Rules and the approved plan. Have been satisfactorily installed on board, and examined in steam, and the vessel is, in my opinion, now eligible for service. Fitted for oil fuel 4-29, F.P. above 150° F.

Survey Fee ... £ : : When applied for, 192

Travelling Expenses (if any) £ : : When received, 192

J. J. Milton
Engineer Surveyor to Lloyd's Register of Ships

Committee's Minute **LIVERPOOL 19 APR. 1929**

Assigned

See Machinery rpt.



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