

## REPORT ON BOILERS.

No. 19324

Received at London Office

23 JUN 1931

Date of writing Report

23.3

1931

When handed in at Local Office

28<sup>th</sup> MAY

1931

Port of

Greenock

No. in Survey held at

Reg. Book.

Greenock

Date, First Survey

15<sup>th</sup> JULY 1930

Last Survey

27<sup>th</sup> MAY

1931

on the

s/s "British Energy"

(Number of Visits)

✓

Gross

4208.54

Tons

Net 4194.10

Master

Built at

Greenock

By whom built

Greenock Dockyard L<sup>d</sup>

Yard No.

422

When built

1931

Engines made at

Greenock

By whom made

John & Trenchard & Co. L<sup>d</sup>

Engine No.

467

When made

1931

Boilers made at

ditto

By whom made

ditto

Boiler No.

467

When made

1931

Nominal Horse Power

Owners

British Tankers L<sup>d</sup>

Port belonging to

London

MULTITUBULAR BOILERS ~~MAIN~~, AUXILIARY, ~~STEAM~~.

Manufacturers of Steel

William Beckett &amp; Co. Ltd. Glasgow &amp; London

(Letter for Record)

S

Total Heating Surface of Boilers

13894

Is forced draught fitted

Yes

Fuel or Oil fired

Oil

No. and Description of Boilers

one Single ended

Working Pressure

150

Tested by hydraulic pressure to

245

Date of test

19.2.31

No. of Certificate

2006

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

oil fuel

No. and Description of safety valves to each boiler

8 42

Bockhorn (Double High Lift)

Area of each set of valves per boiler

per Rule

as fitted

9.8

Pressure to which they are adjusted

155

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

1-6"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

1-6"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

11-5 7/32"

Length

11-6"

Shell plates: Material

S

Tensile strength

29/33

Thickness

25/32"

Are the shell plates welded or flanged

✓

Description of riveting: circ. seams

end

OR

long. seams

TR + DBS

Diameter of rivet holes in

circ. seams

15/16"

long. seams

27/32"

Pitch of rivets

3.096"

6.5/32"

Percentage of strength of circ. end seams

plate

69.6

rivets

45.2

Percentage of strength of circ. intermediate seam

plate

✓

Percentage of strength of longitudinal joint

plate

86.2

rivets

89.7

Working pressure of shell by Rules

152

Thickness of butt straps

outer

3/4"

inner

No. and Description of Furnaces in each Boiler

2 Doughton

Material

S

Tensile strength

26.30

Smallest outside diameter

3.2 7/8"

Length of plain part

top

✓

bottom

Thickness of plates

crown

3 7/16"

bottom

Description of longitudinal joint

weld

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

✓

Working pressure of furnace by Rules

160

End plates in steam space: Material

S

Tensile strength

26.30

Thickness

15/16"

Pitch of stays

16 3/8" + 15 1/4"

How are stays secured

DN + Washers

Working pressure by Rules

159

Tube plates: Material

front

✓

back

Sul

Tensile strength

26.30

Thickness

1 29/32"

11/16"

Mean pitch of stay tubes in nests

10"

Pitch across wide water spaces

13 3/4"

Working pressure

front

174

back

167

Girders to combustion chamber tops: Material

S

Tensile strength

29.33

Depth and thickness of girder

at centre

9 + 3/4 (2)

Length as per Rule

34 5/8"

Distance apart

10 1/8"

No. and pitch of stays

in each

3 at 8 3/4"

Working pressure by Rules

164

Combustion chamber plates: Material

S

Tensile strength

26.30

Thickness: Sides

11/16"

Back

11/16"

Top

11/16"

Bottom

11/16"

Pitch of stays to ditto: Sides

8 3/4" + 7 1/2"

Back

8 + 8 1/4"

Top

10 1/8" + 8 3/4"

Are stays fitted with nuts or riveted over

Riveted

Working pressure by Rules

166

Front plate at bottom: Material

S

Tensile strength

26.30

Thickness

29/32"

Lower back plate: Material

S

Tensile strength

26.30

Thickness

7/8"

Pitch of stays at wide water space

14"

Are stays fitted with nuts or riveted over

Riveted + Nuts

Working Pressure

157

Main stays: Material

S

Tensile strength

26.32

Diameter

At body of stay, or over threads

2 3/8"

No. of threads per inch

6

Area supported by each stay

249 sq. in.

Working pressure by Rules

158

Screw stays: Material

S

Tensile strength

26.30

Diameter

At turned off part, or over threads

1 3/8"

No. of threads per inch

9

Area supported by each stay

66 sq. in.



Working pressure by Rules **153** Are the stays drilled at the outer ends **910** Margin stays: Diameter **1 5/8"** (At turned off part, or Over threads)

No. of threads per inch **9** Area supported by each stay **9075** Working pressure by Rules **167**

Tubes: Material **910H** External diameter **2 3/4"** Thickness **10WG** No. of threads per inch **9**

Pitch of tubes **4" x 4"** Working pressure by Rules **163** Manhole compensation: Size of opening in shell plate **16" x 20"** Section of compensating ring **2.8 1/2 x 2.4 1/2 x 1 1/2"** No. of rivets and diameter of rivet holes **38 at 1 1/2"**

Outer row rivet pitch at ends **8** Depth of flange if manhole flanged **3 1/4"** 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

How connected to shell Inner radius of crown Working pressure by Rules

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 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, 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,  
For **JOHN G. KINCAID & CO. LIMITED.**  
*W. E. Cadour* Director. Manufacturer.

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.) **yes**

Total No. of visits **✓**

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

This boiler has been built under Special Survey in accordance with the approved plan & the workmanship & material are of good quality & it is now securely fitted on board.

This Report accompanies that of the Machinery (Boiler duplicate of H 64. "British Prestige" Lark Ref. 8<sup>th</sup> 19310)

Survey Fee **charged on Machinery Refit**  
Travelling Expenses any

When applied for, **192**  
When received, **192**

**W. E. Cadour - Muir**

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 2 - JUN 1931**

Assigned **SEE ACCOMPANYING MACHINERY REPORT.**



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