

REPORT ON BOILERS.

No. 100167

Received at London Office

16, APR 1932

-9 APR 1932

LIVERPOOL

of writing Report *Hand 10¹⁰ 32* When handed in at Local Office

Port of

in Survey held at

Birkenhead

Date, First Survey

Last Survey

7th April 1932

on the

New boilers for S.S. "Elsie Annie"

(Number of Visits)

Gross *358*
Net *141*

or

Built at

Newcastle

By whom built

Wood & Sons, Ltd.

Card No.

When built

1904

es made at

Newcastle

By whom made

H. S. Marine Eng Co Ltd

Engine No.

When made

1904

made at

Birkenhead

By whom made

Messrs. Cammell Laird & Co Ltd

Boiler No.

When made

1932

al Horse Power

81

Owners

Wesford Steamships Ltd

Port belonging to

*Wesford*TITUBULAR BOILERS—MAIN, ~~AUXILIARY~~ OR DONKEY.

Manufacturers of Steel

Colville Ltd - Stay bars Earl of Dudley Road, Edgbaston

Heating Surface of Boilers

1225 sq ft 1214 sq ft

Is forced draught fitted

no

Coal or Oil fired

Coal

Description of Boilers

One Cylindrical Multitubular

Working Pressure

180 lb sq in

by hydraulic pressure to

320 lb sq in

Date of test

7-3-32

No. of Certificate

2394

Can each boiler be worked separately

Firegrate in each Boiler

35 sq ft

No. and Description of safety valves to each boiler

Two spring loaded

each set of valves per boiler

per Rule

7-78 lb sq in

as fitted

Pressure to which they are adjusted

183 lb sq in

Are they fitted with easing gear

yes

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

distance between boilers or uptakes and bunkers or woodwork

13 1/2"

Is oil fuel carried in the double bottom under boilers

distance between shell of boiler and tank top plating

20 in.

Is the bottom of the boiler insulated

internal dia. of boilers

11'-10 7/8"

Length

10'-0"

Shell plates: Material

Steel

Tensile strength

28 1/2 - 32 1/2 tons sq in

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end D.R. lap

No. R. Double butts

Diameter of rivet holes in

circ. seams

1 1/16"

Pitch of rivets

2 1/8"

Percentage of strength of circ. end seams

plate

63

rivets

57.3

Percentage of strength of circ. intermediate seam

plate

63

Percentage of strength of longitudinal joint

plate

85.6

rivets

94.1

Working pressure of shell by Rules

181 lb sq in

Percentage of strength of longitudinal joint

combined

89.9

of butt straps

outer

3/4"

inner

7/8"

No. and Description of Furnaces in each Boiler

Two corrugated

Material

Steel

Tensile strength

26-30 tons sq in

Smallest outside diameter

3'-5 1/8"

plain part

top

✓

bottom

✓

Thickness of plates

crown

7/32"

Description of longitudinal joint

weld

of stiffening rings on furnace or c.c. bottom

none

Working pressure of furnace by Rules

187 lb sq in

Material

Steel

Tensile strength

26-30 tons sq in

Thickness

1 5/16"

Pitch of stays

16 x 16"

stays secured

Double hats + plain washers

Working pressure by Rules

187 lb sq in

Material

front

Steel

back

Steel

Tensile strength

26-30 tons sq in

Thickness

1 5/16"

Pitch of stays

16 x 16"

of stay tubes in nests

1 1/4"

Pitch across wide water spaces

14 1/4"

Working pressure

front

213 lb sq in

combustion chamber tops: Material

Steel

Tensile strength

28-32 tons sq in

Depth and thickness of girder

length as per Rule

30 1/8"

Distance apart

7 1/8"

No. and pitch of stays

Working pressure by Rules

188 lb sq in

Combustion chamber plates: Material

Steel

Thickness: Sides

7/8"

Back

7/8"

Top

7/8"

Bottom

7/8"

to ditto: Sides

9 3/8 x 7 7/8"

Back

8 7/8 x 8 7/8"

Top

9 3/8 x 7 7/8"

Are stays fitted with nuts or riveted over

hats

Pressure by Rules

182 lb sq in

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons sq in

Lower back plate: Material

Steel

Tensile strength

26-30 tons sq in

Thickness

1 5/16"

at wide water space

14 1/4 x 8 7/8"

Are stays fitted with nuts or riveted over

hats

Main stays: Material

Steel

Tensile strength

28-32 tons sq in

No. of threads per inch

6

Area supported by each stay

256 sq in

Screw stays: Material

Steel

Tensile strength

26-30 tons sq in

No. of threads per inch

9

Area supported by each stay

74 sq in

Working pressure by Rules *204 1/2* Are the stays drilled at the outer ends *ho* Margin stays: Diameter *1 3/4*"
No. of threads per inch *9* Area supported by each stay *98 1/2*" Working pressure by Rules *184 1/2*"
Tubes: Material *B.B. Iron* External diameter *3 1/4*" Thickness *5/16*" No. of threads per inch *9*
Pitch of tubes *4 1/2*" x *4 1/2*" Working pressure by Rules *204 1/2*" Manhole compensation: Size of opening *36*"
shell plate *1 7/8*" x *2 1/2*" Section of compensating ring *8 1/2*" x *1 1/2*" No. of rivets and diameter of rivet holes *36* @ *1 1/8*"
Outer row rivet pitch at ends *7 3/4*" 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 *✓*
Internal diameter *✓* Working pressure by Rules *✓* Thickness of crown *✓* No. and diameter of rivets *✓*
How connected to shell *✓* Inner radius of crown *✓* Working pressure by Rules *✓*
Size of doubling plate under dome *✓* Diameter of rivet holes *✓*
of rivets in outer row in dome connection to shell *✓*

Type of Superheater *None* Manufacturers of *✓*
Number of elements *✓* Material of tubes *✓* Internal diameter and thickness of tubes *✓*
Material of headers *✓* Tensile strength *✓* Thickness *✓* Can the superheater be shut off from the boiler *✓*
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 *✓*
Rules *✓* Pressure to which the safety valves are adjusted *✓* Hydraulic test *✓*
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 *Yes*

FOR AND ON BEHALF OF THE FOREGOING IS A CORRECT DESCRIPTION,
CAMMELL LAIRD & CO. LIMITED
SECRETARY

Dates of Survey *During progress of work in shops - 7, 8, 11, 15, 18, 22, 24, 26, 28, 29, Mar 2, 5, 7.* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
while building *During erection on board vessel - 11, 15, 18, 22, 23, 31, Apr 1, 7.* Total No. of visits *21*

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

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

This boiler has been constructed under special Survey in accordance with the Rules and the approved plan. Workmanship is good, and on completion it has been tested by hydraulic pressure.

Survey Fee *£ 8 - - 2 - - 0* When applied for, *15 APR 1932*
Travelling Expenses (if any) *£ - - -* When received, *7/6/1932*

J. H. Milton & *H. R.*
Engineer Surveyor to Lloyd's Register

Committee's Minute *LIVERPOOL 15 APR 1932*

Assigned *+ N.B. 4.32.*



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