

Rpt. 5a.

REPORT ON BOILERS.

No. 87042

18 APR 1931

Received at London Office

Date of writing Report

19

When handed in at Local Office

16/4/31

Port of NEWCASTLE-ON-TYNE.

No. in
Reg. Book.

Survey held at

Scotswood

Date, First Survey 21st May 1930 Last Survey 16th April 1931

90379 on the

M.V. "ELISE"

(Number of Visits)

Tons

Gross 7910

Net 4719

Master

Built at

Walker.

By whom built

S.W.G. Armstrong Whitworth & Co. Ltd. Yard No. 1068 When built 1931

Engines made at

Scotswood

By whom made

S.W.G. Armstrong Whitworth & Co. Ltd. Engine No. 96. When made 1931

Boilers made at

Scotswood

By whom made

S.W.G. Armstrong Whitworth & Co. Ltd. Boiler No. 96. When made 1931

Nominal Horse Power

776.

Owners

Carl Beck

Port belonging to

Tvedestrand.

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

Manufacturers of Steel D. Colville & Sons Glasgow (Plates) J. Thompson & Sons Wolverhampton (Furnaces) (Letter for Record S.)

Total Heating Surface of Boilers

2175 sq ft.

Is forced draught fitted

Yes.

Coal or Oil fired

Oil

No. and Description of Boilers

One S.F. Multitubular

Working Pressure

150 lb/sq in

Tested by hydraulic pressure to

275 lb/sq in

Date of test

24.9.30

No. of Certificate

504

Can each boiler be worked separately

Yes.

Area of Firegrate in each Boiler

✓

No. and Description of safety valves to each boiler

2. Spring Loaded (High lift)

Area of each set of valves per boiler

per Rule

19.75 x 4 = 9.80

as fitted

Pressure to which they are adjusted

150 lb/sq in

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

✓

Is oil fuel carried in the double bottom under boilers

✓

Smallest distance between shell of boiler and tank top plating

✓

Is the bottom of the boiler insulated

Yes.

Largest internal dia. of boilers

18'-10 1/2"

Length

12'-0"

Shell plates: Material

Steel

Tensile strength

29-33 tons

Thickness

15/16"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end

inter.

D.R. Lap

long. seams

T.R. Double Butt Straps

Diameter of rivet holes in

circ. seams

1 1/4"

Pitch of rivets

3.27"

7 3/16"

Percentage of strength of circ. end seams

plate

rivets

67%.

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

rivets

86.0 %.

Working pressure of shell by Rules

152 lb/sq in

Thickness of butt straps

outer

inner

7/8"

No. and Description of Furnaces in each Boiler

3. Brighton Section.

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

3'-5"

Length of plain part

top

bottom

✓

Thickness of plates

crown

bottom

7/16"

Description of longitudinal joint

Welded.

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

None

Working pressure of furnace by Rules

152 lb/sq in

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/4"

Pitch of stays

19 1/2" x 17 1/4"

How are stays secured

Nuts & washers inside & outside

Working pressure by Rules

152 lb/sq in

Tube plates: Material

front

back

Steel

Steel

Tensile strength

26-30 tons

Thickness

7/8"

1 1/8"

Mean pitch of stay tubes in nests

9 3/8"

Pitch across wide water spaces

13 1/2"

Working pressure

front

back

159 lb/sq in

191 lb/sq in

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

8 1/2" x 1 1/2"

Length as per Rule

2'-10"

Distance apart

9 1/2"

No. and pitch of stays

in each

3 @ 8"

Working pressure by Rules

153 lb/sq in

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

19/32"

Back

5/8"

Top

19/32"

Bottom

7/8"

Pitch of stays to ditto: Sides

9" x 8 1/2"

Back

9 1/2" x 8 1/8"

Top

9 1/2" x 8"

Are stays fitted with nuts or riveted over

Nuts.

Working pressure by Rules

157 lb/sq in

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons.

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

27/32"

Pitch of stays at wide water space

14" x 9 1/2"

Are stays fitted with nuts or riveted over

Nuts.

Working Pressure

173 lb/sq in

Main stays: Material

Steel

Tensile strength

26-30 tons.

Diameter

At body of stay,

or

Over threads

2 3/4"

No. of threads per inch

6.

Area supported by each stay

341 sq in.

Working pressure by Rules

162 lb/sq in

Screw stays: Material

Steel

Tensile strength

26-30 tons.

Diameter

At turned off part,

or

Over threads

1 1/2"

No. of threads per inch

9.

Area supported by each stay

82 sq in.

002427-002434-0048

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Foundation

Working pressure by Rules 152 lb/sq. in. Are the stays drilled at the outer ends No. Margin stays: Diameter 1 3/4" x 1 1/8"
 No. of threads per inch 9. Area supported by each stay 107.5 sq. in. & 126 sq. in. Working pressure by Rules 168 lb/sq. in.
 Tubes: Material Steel External diameter 2 1/2" Thickness 10 wt. No. of threads per inch 9.
 Pitch of tubes 3 3/4" Working pressure by Rules Plain 175 lb/sq. in. Stay 176 lb/sq. in. Manhole compensation: Size of opening in
 shell plate 20 1/2" x 16 1/2" Section of compensating ring 20" x 1 5/16" No. of rivets and diameter of rivet holes 44 @ 1 1/8"
 Outer row rivet pitch at ends 8" x 4" Depth of flange if manhole flanged 3 3/8" Steam Dome: Material None.
 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 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 None. Manufacturers of Tubes
 Number of elements Material of tubes Steel castings 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 Yes.

The foregoing is a correct description,

OR
 W. G. ARMSTRONG WHITWORTH & COMPANY (ENGINEERS) LIMITED Manufacturer.

Dates of Survey During progress of
work in shops - -
while During erection on
building board vessel - -

See Machinery Report

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

Total No. of visits

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. M.V. ATTILA New R.N. No. 86497.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler has been built under
Special Survey & in accordance with the Society's Rules & approved plan.
The materials & workmanship are sound & good. The boiler was hydraulically
tested as per Rules & found satisfactory. The safety valves were
adjusted under steam to the approved working pressure.

Survey Fee £ For Fees. When applied for, 19
 Travelling Expenses (if any) £ See Machinery Rpt. When received, 19

L. J. Skett.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 24 APR 1921
 Assigned See J.C. Rpt.



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Lloyd's Register
 Foundation

Rpt. 13

R

Date of

No. in
 Reg. B.

90879

Built at

Owners

Electric

Is the V

System

Pressure

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Instrum

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detach

Switches

Joint B