

REPORT ON BOILERS.

No. 58800

Received at London Office

SEP 8 1937

Date of writing Report

When handed in at Local Office

14.9.1937

Port of Glasgow.

No. in Survey held at

Glasgow.

Date, First Survey

2.11.36

Last Survey

30th Sep.

1937

Reg. Book

35469

on the

Oil fired Boiler NEW. 109.

M. V. "TREVALGAN"

(Number of Visits

68.)

Tons

Gross

5299.

Net

3120

Master

Built at

P. Glasgow.

By whom built

M. Lithgow & Co. Ltd

Yard No. 898

When built

Engines made at

Glasgow

By whom made

Barclay Curle & Co. Ltd

Engine No. 109.

When made 1937.

Boilers made at

Glasgow.

By whom made

Barclay Curle & Co. Ltd

Boiler No. 109.

When made 1937.

Nominal Horse Power

Owners

Hain H. Co. Ltd.

Port belonging to

London.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

D. Calville Son.

(Letter for Record

(5)

Total Heating Surface of Boilers

1684 sq. ft.

Is forced draught fitted

No

Coal or Oil fired

oil.

No. and Description of Boilers

1. S.B.

Working Pressure

120 lb.

Tested by hydraulic pressure to

230 lb.

Date of test

15/2/37

No. of Certificate

19909.

Can each boiler be worked separately

Area of Firegrate in each Boiler

-

No. and Description of safety valves to each boiler

Two - Imp: High Lift.

Area of each set of valves per boiler

per Rule

15.6 sq. ft.

Pressure to which they are adjusted

120 lb. per 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

No main boilers.

Smallest distance between boilers or uptakes and bunkers or woodwork

2 ft.

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

2 ft. 6 ins.

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

12' 9"

Length

11' 0"

Shell plates: Material

Steel.

Tensile strength

29/33 Ton.

Thickness

23/32"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end

D.R.

Long. seams

T.R. - D.B.S.

Diameter of rivet holes in

circ. seams

13/16"

Pitch of rivets

2.414"

Percentage of strength of circ. end seams

plate

66.3.

rivets

47.4.

Percentage of strength of circ. intermediate seam

plate

85.8.

rivets

Percentage of strength of longitudinal joint

plate

93.2.

rivets

92.1.

Working pressure of shell by Rules

123 lb.

Thickness of butt straps

outer

9/16"

inner

1/16"

No. and Description of Furnaces in each Boiler

3. Bighton Section

Material

Steel

Tensile strength

26/30 Ton.

Smallest outside diameter

3' 1 1/4"

Length of plain part

top

-

bottom

Thickness of plates

crown

3/8"

bottom

Description of longitudinal joint

weld.

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

Working pressure of furnace by Rules

142 lb.

End plates in steam space: Material

Steel

Tensile strength

26/30 Ton.

Thickness

15/16"

Pitch of stays

18 1/2" x 18 1/2"

How are stays secured

D.N.

Working pressure by Rules

121 lb.

Tube plates: Material

front

Steel.

back

Tensile strength

26/30 Ton.

Thickness

23/32" 1/16"

Lean pitch of stay tubes in steam space

10 1/2"

Pitch across wide water spaces

14 1/2"

Working pressure

front 125 lb.

back 152 lb.

Orders to combustion chamber tops: Material

Steel

Tensile strength

28/32 Ton.

Depth and thickness of girder

centre

8" x 19/32" double

Length as per Rule

2' 9 3/4"

Distance apart

9 1/2"

No. and pitch of stays

each

2 @ 10 1/2"

Working pressure by Rules

121 lb.

Combustion chamber plates: Material

Steel

Tensile strength

26/30 Ton.

Thickness: Sides

19/32"

Back

9/16"

Top

19/32"

Bottom

19/32"

Pitch of stays to ditto: Sides

10 1/2" x 9 1/2"

Back

9 1/2" x 9 1/2"

Top

10 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

121 lb.

Front plate at bottom: Material

Steel

Tensile strength

26/30 Ton.

Thickness

23/32"

Lower back plate: Material

Steel

Tensile strength

26/30 Ton.

Thickness

21/32"

Pitch of stays at wide water space

14"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

165 lb.

Main stays: Material

Steel

Tensile strength

28/32 Ton.

Gage

At body of stay,

2 1/2"

Over threads

No. of threads per inch

6.

Area supported by each stay

18 1/2" x 18"

Working pressure by Rules

133 lb.

Screw stays: Material

Steel

Tensile strength

26/30 Ton.

Gage

At turned off part,

1 1/2"

Over threads

No. of threads per inch

9

Area supported by each stay

9 1/2" x 9 1/2"

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W224-0162

Working pressure by Rules 144 lb Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 5/8" Over threads. 1 5/8"
No. of threads per inch 9 Area supported by each stay 11 3/4" x 9 1/8" Working pressure by Rules 104 lb
Tubes: Material Steel S.D. External diameter { Plain 3" Thickness { 5/16" - 1/4" No. of threads per inch 9
Pitch of tubes 4 1/4" x 4 1/8" Working pressure by Rules 140 lb Manhole compensation: Size of opening in
shell plate 20" x 16" Section of compensating ring 2' 9" x 2' 5" x 23/32" No. of rivets and diameter of rivet holes 44 - 15/16"
Outer row rivet pitch at ends 6" Depth of flange if manhole flanged 4" 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 Rivets
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
of rivets in outer row in dome connection to shell

Type of Superheater

Number of elements Material of tubes Manufacturers of { Tubes Steel forgings Steel castings
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 forgings and castings and after assembly in place Are drain cocks
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 BAROLAY, CURLE & Co., LTD

Alexander Macnail

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

SEE ACCOMPANYING MACHINERY REPORT
Are the approved plans of boiler and fittings forwarded herewith (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. Gls Report 57649.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey, to approved plans in accordance with the Society's Rules. Materials and workmanship are good. It has been properly fitted on board, examined under steam & the safety valves have been adjusted to the working pressure: adjusting weights - 25" 60 lb. 27" 60 lb.
24/9/37

Survey Fee ... £ 11/4/0. When applied for, 7-SEP 1937
Travelling Expenses (if any) £ : : When received, 30/10 1937

H. Sutherland & Co. Ltd
Engineer Surveyors to Lloyd's Register of Shipping

Committee's Minute GLASGOW 7-SEP 1937 95m

Assigned SEE ACCOMPANYING MACHINERY REPORT.



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