

REPORT ON BOILERS.

No. 62760

Received at London Office

21-272

1-12-13 Date of writing Report

19

When handed in at Local Office

21: 9: 1940

Port of

GLASGOW

No. in Survey held at

Date, First Survey

22: 11: 39

Last Survey

11th. 5th. 1940

Reg. Book.

8903 on the

s/s

"LULWORTH HILL"

(Number of Visits

Gross 5500

Tons

Net

Built at

P.A. Glasgow

By whom built

J.M. Hamilton & Co. Ltd.

Yard No. 440

When built 1940

Engines made at

Glasgow

By whom made

David Brown & Co. Ltd.

Engine No. 1041

When made 1940

Boilers made at

-do-

By whom made

-do-

Boiler No. 1041

When made 1940

Nominal Horse Power

520

Owners

Donat S.S. Co. Ltd.

Port belonging to

London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland

(Letter for Record

S

Total Heating Surface of Boilers

1703 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

One single-ended

Working Pressure 225 lb.

Tested by hydraulic pressure to

388 lb.

Date of test

29/8/40

No. of Certificate

20577

Can each boiler be worked separately

-

Area of Firegrate in each Boiler

-

No. and Description of safety valves to each boiler

1-1 3/4" I.H.L. date

Area of each set of valves per boiler

per Rule

4.4 sq ft

as fitted

4.8 sq ft

Pressure to which they are adjusted

225 lb.

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

Yes

Smallest distance between shell of boiler and tank top plating

2'-6"

Is the bottom of the boiler insulated

Yes

Largest external dia. of boilers

12'-6"

Length

11'-6"

Shell plates: Material

steel

Tensile strength

29/32 tons

Thickness

1 7/32"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

date

long. seams

DBS TR

Diameter of rivet holes in

circ. seams

1 7/16"

long. seams

1 5/16"

Pitch of rivets

3.594" B

3.158"

Percentage of strength of circ. end seams

plate

63.4 B 62.3 F

rivets

48.5 44.8

Percentage of strength of circ. intermediate seam

plate

85.2

rivets

93.3

Percentage of strength of longitudinal joint

plate

85.2

rivets

93.3

Thickness of butt straps

outer

1 5/16"

inner

1 1/16"

No. and Description of Furnaces in each Boiler

2 Deighton

Material

steel

Tensile strength

26/30 tons

Smallest outside diameter

3'-7 1/32"

Length of plate part

top

-

bottom

Thickness of plates

crown

4 3/64"

bottom

Description of longitudinal joint

welded

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

-

End plates in steam space: Material

steel

Tensile strength

26/30 tons

Thickness

1 3/32"

Pitch of stays

14 3/4" x 17"

How are stays secured

D.H.

Tube plates: Material

front

steel

back

Tensile strength

26/30 tons

Thickness

29/32"

25/32"

Mean pitch of stay tubes in nests

9.25"

Pitch across wide water spaces

13 1/2"

Girders to combustion chamber tops: Material

steel

Tensile strength

28/32 tons

Depth and thickness of girder

at centre

208 7/8" x 7/8"

Length as per Rule

2'-7 9/16"

Distance apart

9"

No. and pitch of stays

in each

30 7 1/2"

Combustion chamber plates: Material

steel

Tensile strength

26/30 tons

Thickness: Sides

1 1/16"

Back

2 1/32"

Top

1 1/16"

Bottom

13/16"

Pitch of stays to ditto: Sides

7 1/2" x 9"

Back

8 1/8" x 8 1/4"

Top

7 1/2" x 9"

Are stays fitted with nuts or riveted over

nuts

Front plate at bottom: Material

steel

Tensile strength

26/30 tons

Thickness

29/32"

Lower back plate: Material

steel

Tensile strength

26/30 tons

Thickness

27/32"

Pitch of stays at wide water space

13 1/2"

Are stays fitted with nuts or riveted over

nuts

Main stays: Material

steel

Tensile strength

28/32 tons

Diameter

At body of stay,

2 1/2" x 2 3/4"

or

Over threads

No. of threads per inch

6

Screw stays: Material

steel

Tensile strength

26/30 tons

Diameter

At turned off part,

1 5/8"

or

Over threads

No. of threads per inch

9

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Foundation

W192-0019

Are the stays drilled at the outer ends no

Margin stays: Diameter 1 7/8" At turned off part, or Over threads

No. of threads per inch 9

Tubes: Material Iron External diameter 2 1/2" Plain 2 1/2" Stay 2 1/2" Thickness 9/16" No. of threads per inch 9

Pitch of tubes 3 5/8" x 3 3/4" Manhole compensation: Size of op

shell plate 15 1/2" x 19 1/2" Section of compensating ring 9 1/2" x 1 7/32" No. of rivets and diameter of rivet holes 34 @ 1 7/16"

Outer row rivet pitch at ends _____ Depth of flange if manhole flanged _____ 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 Rivet

Internal diameter _____ Thickness of crown _____ No. and dia

stays _____ Inner radius of crown _____

How connected to shell _____ Size of doubling plate under dome _____ Diameter of rivet holes and

of rivets in outer row in dome connection to shell _____

Type of Superheater

Manufacturers of

Tubes

Steel forgings

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

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 _____

Pressure to which the safety valves are adjusted _____ Hydraulic test pre

tubes _____ forgings and castings _____ and after assembly in place _____ Are drain

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,

For David Rowan & Co. Ltd

Arch. N. Grierson

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

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

SEE ACCOMPANYING MACHINERY REPORT

Total No. of visits

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. "MARIETTAE" 40.41.6

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built

under special survey in accordance with the Rules and approved
plans, and the materials and workmanship are good. It has
been satisfactorily installed in the vessel and the safety
valves have been adjusted to the working pressure.

Survey Fee ... £ See March 1941 When applied for, 19

Travelling Expenses (if any) £ See March 1941 When received, 19

Committee's Minute GLASGOW 24 SEP 1940

Assigned SEE ACCOMPANYING MACHINERY REPORT.

Engineer See March 1941 Successor to Lloyd's Register of Shipping



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