

REPORT ON BOILERS.

No. 10,352

Received at London Office

FEB - 3 1941

Date of writing Report

28/1/41

When handed in at Local Office

28/1/41

Port of

Manchester

No. in
Reg. Book

Survey held at

Hyde

Date, First Survey

23/9/40

Last Survey

15/1/1941

(Number of Visits)

7

Gross

Tons

Net

on the new M/V "GLOUCESTER"

Built at

Govan

By whom built

Alex. Stephen & Sons

Yard No.

575

When built

1941

Engines made at

Glasgow

By whom made

Barclay Curle & Co. Ltd.

Engine No.

E.W. 128

When made

1941

Boilers made at

By whom made

Boiler No.

When made

Owners

New Zealand Shipping Co. Ltd.

Port belonging to

London

VERTICAL DONKEY BOILER.

Made at

Hyde

By whom made

J. Adamson & Co. Ltd.

Boiler No.

2566

When made

1940

Where fixed

✓

Manufacturers of Steel

Jest Keen Baldwin, Iron & Steel Co. Ltd., Port Talbot

Total Heating Surface of Boiler

675 Sq. ft.

Is forced draught fitted

✓

Oil fired

for Exh. Gas

No. and Description of Boilers

One Plain Thin Plate Tube Boiler

Working pressure

100 lb./sq. in.

Tested by hydraulic pressure to

200 lb./sq. in.

Date of test

9th December 1940

No. of Certificate

94

Area of Firegrate in each Boiler

7.33 sq. in.

No. and Description of safety valves to each boiler

Not fitted by J. Adamson & Co. Ltd. two enclosed springs

Area of each set of valves per boiler

9.82 sq. in.

Pressure to which they are adjusted

100 lbs

Are they fitted with easing gear

✓

State whether steam from main boilers can enter the donkey boiler

✓

Smallest distance between boiler or uptake and bunkers

or woodwork

✓

Is oil fuel carried in the double bottom under boiler

✓

Smallest distance between base of boiler and tank top plating

Shell plates: Material

O.H. Steel

Tensile strength

28/32 tons/sq. in.

Thickness

1/2"

Height

14'-9"

Are the shell plates welded

Yes, at butt joints ends only

Description of riveting: circ. seams

end. 1/4" S.R. Butt DR.

long. seams

D.R. Butt Straps

Dia. of rivet holes in

circ. seams 13/16"

Pitch of rivets

Upper 2.782" Lower 2.664"

Percentage of strength of circ. seams

plate 59.3% rivets 42.7%

of Longitudinal joint

plate 69.5% rivets 115% combined ✓

Working pressure of shell by rules

110 lb./sq. in.

Thickness of butt straps

outer 1/2" inner 1/2"

Shell Crown:

Whether complete hemisphere, dished partial spherical, or flat

Yes

Material

O.H. Steel

Tensile strength

26/30 tons/sq. in.

Thickness

13/16"

Radius

6'-6"

Working pressure by rules

105 lb./sq. in.

Description of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

Thickness

External diameter

top

bottom

Length as per rule

Working pressure by rules

Pitch of support stays circumferentially

and vertically

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Radius of spherical or dished furnace crown

Working pressure by rule

Thickness of Ogee Ring

(Butt. Crown Plate) 15/16"

Diameter as per rule

D

Working pressure by rule

101 lb./sq. in.

Combustion Chamber: Material

O.H. Steel

Tensile strength

26/30 tons/sq. in.

Thickness of top plate

2 1/32"

Radius if dished

4'-0"

Working pressure by rule

113 lb./sq. in.

Thickness of

tube plate 1 1/8"

Diameter if circular

4'-5 7/8" inside

Length as per rule

7'-8 1/8"

Pitch of stays

✓

Are stays fitted with nuts or riveted over

✓

Diameter of stays over thread

✓

Working pressure of

tube back plate by rules

As approved.

Tube Plates: Material

front

back

Tensile strength

Thickness

Mean pitch of stay tubes in nests

If comprising shell, Dia. as per rule

front

back

Pitch in outer vertical rows

Dia. of tube holes FRONT

stay

plain

BACK

stay

plain

Is each alternate tube in outer vertical rows a stay tube

Working pressure by rules

front

back

Girders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder at centre

Length as per rule

Distance apart

No. and pitch of stays in each

Working pressure by rule

004653-004661-0241

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Foundation

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Crown stays: Material _____ Tensile strength _____ Diameter { at body of stay, _____ or over threads. _____

No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____

Screw stays: Material _____ Tensile strength _____ Diameter { at turned off part, _____ or over threads. _____ No. of threads per inch _____

Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____

Thimble Tubes: Material Steel ✓ External diameter { plain 4" ✓ stay 4" ✓ Thickness { 9 LBS. ✓

No. of threads per inch _____ Pitch of tubes Vert. 4 3/8" Horiz. 4.053" Working pressure by rules _____

Mudhole Compensation: Size of opening in shell plate 6" x 4" Section of compensating ring 11 1/4" x 9 1/4" x 5/8" No. of rivets and diameter _____

of rivet holes 8 - 13/16" dia. Outer row rivet pitch at ends 3" Depth of flange if manhole flanged 16" x 12" in Shell lower 3"

Uptake: External diameter 2'-11" Thickness of uptake plate 1/2"

Cross Tubes: No. _____ External diameters { _____ Thickness of plates _____

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes.

The foregoing is a correct description,
FOR JOSEPH ADAMSON & CO. LIMITED.

J. Adamson Manufacturer.
Joint Managing Director.

Dates of Survey { During progress of work in shops - 23.9.40, 30.10.40, 4.11.40,
while building { During erection on board vessel - 30.11.40, 9.12.40, 11.12.40, AND 15.1.41

Is the approved plan of boiler forwarded herewith (If not state date of approval.) Yes

Total No. of visits Seven.

Is this Boiler a duplicate of a previous case.

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 of tested materials and is in accordance with the Secretary's letters, Approved plans and Rule Requirements. The materials and workmanship are of good quality and the boiler, when tested in the shop under hydraulic pressure of 200 lbs per sq. inch, was found sound and tight. This boiler is, in my opinion, eligible to be fitted on board a vessel classed with this Society.

FOR IDENTIFICATION PURPOSES.
BOILER MARKED :-

№ 94
LLOYDS TEST
200 LBS.
W.P. 100 LBS
W.T.M. 9.12.40

Glasgow 14-7-41 The boiler has been satisfactorily fitted in the vessel and its safety valves adjusted under steam to 100 lbs per sq

Survey Fee ... £ 4 : 4/- When applied for, 31st Jan 1941
Travelling Expenses (if any) £ 1 : 1/- When received, 19

Committee's Minute GLASGOW 29 JUL 1941

Assigned SEE ACCOMPANYING MACHINERY REPORT.

W. J. Mathie Ed Davis
Engineer Surveyor to Lloyd's Register of Shipping.

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