

REPORT ON BOILERS.

No. 67081

Received at London Office

19 MAY 1943

Date of writing Report

10

When handed in at Local Office

17.5

19.3

Port of

Glasgow

No. in Survey held at

Glasgow

Date, First Survey

5th Nov 1942

Last Survey

12th May 1943

1943

Reg. Book.

(Number of Visits)

23

Gross
Tons
Net

on the S.S. "EMPIRE GLORY."

Built at

Burntisland

By whom built

Burntisland SB Co. Ltd.

Yard No. 266

When built 1943

Engines made at

Glasgow

By whom made

David Brown & Co. Ltd.

Engine No. 1116

When made 1943

Boilers made at

do.

By whom made

do.

Boiler No. 1109

When made 1943

Nominal Horse Power

509 570

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland

(Letter for Record S)

Total Heating Surface of Boilers 7248 sq ft

Is forced draught fitted Yes

Coal or Oil fired Coal

No. and Description of Boilers 3 Single-ended

Working Pressure 220 lb.

Tested by hydraulic pressure to 380 lb.

Date of test 19-2-43

No. of Certificate 21336

21328

Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 55 sq ft

No. and Description of safety valves to each boiler 1-2 1/4" I.H.L. donkey

Area of each set of valves per boiler (per Rule 6.42 sq ft as fitted 7.95 sq ft)

Pressure to which they are adjusted 220 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 Front of boiler to bunker bulkhead = 9' 2"

Smallest distance between shell of boiler and tank top plating 2' 0"

Is the bottom of the boiler insulated Yes.

Largest external dia. of boilers 15' 3" Length 11' 6"

Shell plates: Material S

Tensile strength 29/32 tons

Thickness 1 7/16" Are the shell plates welded or flanged No

Description of riveting: circ. seams

long. seams DBS TR Diameter of rivet holes in circ. seams B 1 1/2" F 1 3/8"

long. seams 1 1/2"

Pitch of rivets

B 4' 13" F 3' 4 3/5"

Percentage of strength of circ. end seams (plate B 63.68 F 60 rivets 47.2 F 47.8)

Percentage of strength of circ. intermediate seam (plate rivets)

Percentage of strength of longitudinal joint (plate 85.36 rivets 89)

Thickness of butt straps (outer 1 3/32 inner 1 7/32)

combined 88.5

No. and Description of Furnaces in each Boiler 3 Leighton

Material S

Tensile strength 26/30 tons

Smallest outside diameter 3' 9 3/8"

Length of plain part (top bottom)

Thickness of plates (crown 1 1/16 bottom)

Description of longitudinal joint welded

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

End plates in steam space: Material S

Tensile strength 26/30 tons

Thickness 1 3/8"

Pitch of stays 22" x 16 1/4"

How are stays secured D.N.

Tube plates: Material (front S back S)

Tensile strength 26/30 tons

Thickness 15/16" 25/32"

Mean pitch of stay tubes in nests 9.54"

Pitch across wide water spaces 14"

Girders to combustion chamber tops: Material S

Tensile strength 28/32 tons

Depth and thickness of girder

at centre 2 @ 8 3/4" x 7/8" Length as per Rule 2' 9 1/2"

Distance apart 8"

No. and pitch of stays

in each 3 @ 8 1/4"

Combustion chamber plates: Material S

Tensile strength 26/30 tons

Thickness: Sides 2 1/32"

Back 2 3/32"

Top 2 1/32"

Bottom 1 3/16"

Pitch of stays to ditto: Sides 8" x 8 1/4"

Back 8" x 10"

Top 8" x 8 1/4"

Are stays fitted with nuts or riveted over Nuts

Front plate at bottom: Material S

Tensile strength 26/30 tons

Thickness 15/16"

Lower back plate: Material S

Tensile strength 26/30 tons

Thickness 13/16"

Pitch of stays at wide water space 13 7/16"

Are stays fitted with nuts or riveted over Nuts

Main stays: Material S

Tensile strength 28/32 tons

Diameter (At body of stay, or Over threads) 3" + 3 1/4"

No. of threads per inch 6

Screw stays: Material S

Tensile strength 26/30 tons

Diameter (At turned off part, or Over threads) 1 5/8" + 1 3/4"

No. of threads per inch 9

Are the stays drilled at the outer ends *No*

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

No. of threads per inch *9*

Tubes : Material *S*

External diameter { Plain *3"*
Stay *3"*

Thickness { *8 W.G.*
1/4", 5/16" + 3/8" No. of threads per inch *9*

Pitch of tubes *4 1/8" x 4 3/16"*

Manhole compensation: Size of opening in

End plate *16" x 12"*

Section of compensating ring *-*

No. of rivets and diameter of rivet holes *-*

Outer row rivet pitch at ends *-*

Depth of flange if manhole flanged *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 { Plate
Rivets

Internal diameter

Thickness of crown

No. and diameter of

stays

Inner radius of crown

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 *Superheater Co. Ltd.*

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 off and

the boiler be worked separately *No*

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *Yes*

Area of each safety valve *1.76 sq"*

Are the safety valves fitted with easing gear *Yes*

Pressure to which the safety valves are adjusted *220 lbs/sq"*

Hydraulic test pressure :

tubes

forgings and castings

and after assembly in place *440 lbs/sq"*

Are drain cocks or

valves fitted to free the superheater from water where necessary *Yes*

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

The foregoing is a correct description,

For David Rowan T.B. Rpt.
Arch. H. Guernon

Manufacturer.

Dates of Survey { During progress of *1942 Nov 5-26 Dec 8-11 15-19 1943*
work in shops - - *Jan 7. 19 25-27 Feb 9. 16 18-19 22 Mar 2. 4 11 12 16 30 May 12*
while building { During erection on
board vessel - - -

Are the approved plans of boiler and superheater forwarded herewith *Yes*

(If not state date of approval.)

Total No. of visits *23*

Is this Boiler a duplicate of a previous case *Yes*

If so, state Vessel's name and Report No.

"EMPIRE TRUMPET" J.B. Rpt.
H2 67059

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

These boilers have been built under special survey in accordance with the Rules and approved plans, and the materials and workmanship are good. They have been sent to Biratnagar for installation in the vessel.

The specification requirements have been carried out satisfactorily.

These boilers have been efficiently fitted on board and the safety valves adjusted to 220 lbs/sq".

J. Campbell

Survey Fee £

When applied for, 19

Travelling Expenses (if any) £

When received, 19

Committee's Minute *GLASGOW 18 MAY 1943*

Assigned *SEE ACCOMPANYING MACHINERY REPORT.*

TUES. 29 JUN 1943

© 2021

Lloyd's Register
Foundation