

## REPORT ON BOILERS.

No. 71780

Received at London Office

11 JUN 1947

No. of writing Report

When handed in at Local Office

Port of

GLASGOW.

No. in  
Book.

Survey held at

ARDROSSAN

Date, First Survey

13th March 1947

Last Survey

13th May, 1947.

(Number of Visits)

1991

on the

"NARVA" ex "EMPIRE CONFERENCE"

Tons

Gross

1991

Net

1076

Master

Built at

GAVLE

By whom built

GAVLE VRVS-VERKSTADS

Yard No.

When built 1943

Engines made at

HAMBURG

By whom made

CHRISTIANSEN &amp; MEYER

Engine No.

When made 1943

Boilers made at

HAMBURG

By whom made

CHRISTIANSEN &amp; MEYER

Boiler No. 5773/74

When made 1943

Nominal Horse Power

Owners

GLEN &amp; CO.

Port belonging to

GLASGOW

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

(Letter for Record)

Total Heating Surface of Boilers 2971 sq. ft.

Is forced draught fitted Yes

Coal or Oil fired

No. and Description of Boilers Two Cylindrical Multitubular

Working Pressure

16 kg per cm<sup>2</sup>

Tested by hydraulic pressure to 230 lbs./sq. in. Date of test 5.5.47. No. of Certificate -

Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 94.3 sq. ft.

No. and Description of safety valves to each boiler Two @ 2" dia. = 6.28 2 1/4

Area of each set of valves per boiler 6.28 sq. in.

Pressure to which they are adjusted 227 lbs. 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 well clear

Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 2' 6"

Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 3600 m/m

Length 3194 m/m

Shell plates: Material

S.M. Steel

Tensile strength 47/56

Thickness 30 m/m

Are the shell plates welded or flanged flanged

Description of riveting: circ. seams

end double

Long. seams

treble

Diameter of rivet holes in

circ. seams 32

long. seams 32

Pitch of rivets

84

Percentage of strength of circ. end seams

Percentage of strength of circ. intermediate seam

Percentage of strength of longitudinal joint

Working pressure of shell by Rules

Thickness of butt straps

outer 27

inner 27

No. and Description of Furnaces in each Boiler

Two corrugated

Material Steel

Tensile strength

35/44

Smallest outside diameter 1084

Length of plain part

top 10"

bottom 15"

Thickness of plates

crown 17

bottom 17

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

End plates in steam space: Material

Steel

Tensile strength

35/44

Thickness 28

Pitch of stays 400 x 360

How are stays secured double nuts and riveted washers

Working pressure by Rules

End plates: Material

front steel

back steel

Tensile strength

35/44

Thickness

28

Can pitch of stay tubes in nests 226 x 220

Pitch across wide water spaces

370

Working pressure

Orders to combustion chamber tops: Material steel

Tensile strength

35/44

Depth and thickness of girder

Centre 160, 20

Length as per Rule 600 m/m

Distance apart 200

No. and pitch of stays

Each 2, 173

Working pressure by Rules -

Combustion chamber plates: Material

Steel

Tensile strength

35/44

Thickness: Sides

18.5

Back 19

Top 18.5

Bottom 23 m/m

Pitch of stays to ditto: Sides

165 x 173

Back 170 x 170

Top 173 x 200

Are stays fitted with nuts or riveted over

riveted

Working pressure by Rules

Front plate at bottom: Material

steel

Tensile strength

35/44

Thickness 28

Lower back plate: Material

steel

Tensile strength

35/44

Thickness

28

Pitch of stays at wide water space

370 x 170

Are stays fitted with nuts or riveted over

nuts

Working Pressure

Main stays: Material

steel

Tensile strength

34/32

Diameter

At body of stay, 77

No. of threads per inch

6

Area supported by each stay

400 x 360

Working pressure by Rules

Screw stays: Material

steel

Tensile strength

35/44

Diameter

At turned off part, 35

No. of threads per inch

9

Area supported by each stay

170 x 170

003385-003390-0240

Lloyd's Register  
Foundation



5A 71780

Working pressure by Rules Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 47 & 53  
No. of threads per inch 9 Area supported by each stay 370 x 170 Working pressure by Rules  
Tubes: Material steel External diameter { Plain 83 Thickness { 4  
Stay 83 9 & 7 No. of threads per inch 9  
Pitch of tubes 113 x 110 Working pressure by Rules Manhole compensation: Size of opening  
shell plate 320 x 425 Section of compensating ring 900 x 1100 x 30 No. of rivets and diameter of rivet holes 54, 32  
Outer row rivet pitch at ends 225 Depth of flange if manhole flanged 100 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 - Working pressure by Rules Thickness of crown - No. and diameter  
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 Schmiat Manufacturers of { Tubes  
Steel forgings  
Steel castings  
Number of elements 32 per blr Material of tubes steel Internal diameter and thickness of tubes 17 m/m 2 1/2 m/m  
Material of headers steel Tensile strength 35/44 kg. Thickness 24 m/m Can the superheater be shut off  
the boiler be worked separately Yes 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 3.14 sq. ins. Are the safety valves fitted with easing gear Yes Working pressure as  
Rules Pressure to which the safety valves are adjusted 230 lbs. Hydraulic test pressure  
tubes 400 lbs/sq. in forgings and castings - and after assembly in place - Are drain cocks  
valves fitted to free the superheater from water where necessary valves  
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with. Yes

The foregoing is a correct description,

Manufactured

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)

Total No. of visits

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.)

The quality of the workmanship so far as could be seen is good.

The boilers were subjected to a hydraulic test of 230 lbs. and found satisfactory.

The safety valves were adjusted under steam to a pressure of 227 lbs.

No sign of distortion was found on the combustion chamber girders and top plating.

Survey Fee ... £ : : When applied for, 19  
Travelling Expenses (if any) £ : : When received, 19

J. Crawford.  
Engineer Surveyor to Lloyd's Register of Shipping

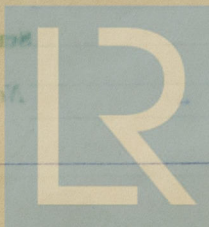
Committee's Minute

GLASGOW

10 JUN 1947

Assigned

SEE ACCOMPANYING MACHINERY REPORT.



© 2020

Lloyd's Register Foundation