

## REPORT ON BOILERS.

No. 100.318

Received at London Office

Date of writing Report

19

When handed in at Local Office

23/3/42

Port of

NEWCASTLE-ON-TYNE

No. in  
Reg. Book.

Survey held at

Newcastle on Tyne

Date, First Survey

27 Jan. 1941

Last Survey

19 March

1942

on the

S/S "BALTYK."

(Number of Visits)

Gross 7001

Tons Net 5121

Master

Built at

Newcastle

By whom built

Swan, Hunter &  
Wigham Richardson & Co

Yard No.

1704

When built

1942-

Engines made at

Newcastle

By whom made

ditto.

Engine No.

1704

When made

1942-

Boilers made at

ditto

By whom made

ditto.

Boiler No.

1704

When made

1942-

Nominal Horse Power

Owners

Port belonging to

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

Manufacturers of Steel

The Steel Company of Scotland, &amp; Colvilles Ltd.

(Letter for Record

5.

Total Heating Surface of Boilers

6080 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

Coal

No. and Description of Boilers

Two S.E. Blns.

Working Pressure

220 lbs.

Tested by hydraulic pressure to

380 lb

Date of test

16/1/42

No. of Certificate

938.

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

77 sq ft

No. and Description of safety valves to each boiler

Two of 2½ dia. Cockburn's Imp. High Lift.

Area of each set of valves per boiler

per Rule

8.65

as fitted

9.8

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

No Donkey Bln.

Smallest distance between boilers or uptakes and bunkers or woodwork

17"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

23½"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

16'3"

Length

12'0"

Shell plates: Material

S.

Tensile strength

30 to 34 tons

Thickness

1 33/64

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R. lap.

long. seams

T.R. dble. butt straps

Diameter of rivet holes in

circ. seams

1 9/16"

Pitch of rivets

4.60.

Percentage of strength of circ. end seams

plate 66.03

rivets 42.17

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 85.11.

rivets 86.0

combined 87.55.

Working pressure of shell by Rules

221 lbs.

Thickness of butt straps

outer 15/32"

inner 19/32"

No. and Description of Furnaces in each Boiler

Four Dighton Corrugated

Material

S.

Tensile strength

26 to 30 tons

Smallest outside diameter

41"

Length of plain part

top

bottom

Thickness of plates

crown

5/8"

Description of longitudinal joint

fire welded

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

none

Working pressure of furnace by Rules

222 lbs.

End plates in steam space: Material

S.

Tensile strength

26 to 30 tons

Thickness

1 7/32"

Pitch of stays

20½ x 14"

How are stays secured

Nuts inside &amp; outside

Working pressure by Rules

225 lbs.

Tube plates: Material

front S.

back

Tensile strength

26 to 30 tons

Thickness

1 1/2"

27/32"

Mean pitch of stay tubes in nests

10 5/8"

Pitch across wide water spaces

14"

Working pressure

front 274 lbs.

back 227 lbs.

Girders to combustion chamber tops: Material

S.

Tensile strength

28 to 32 tons

Depth and thickness of girder

at centre

10½ x 25/32 x two

Length as per Rule

34 7/16"

Distance apart

10"

No. and pitch of stays

in each

Three @ 8"

Working pressure by Rules

224 lbs.

Combustion chamber plates: Material

S.

Tensile strength

26 to 30 tons

Thickness: Sides

3/4"

Back

23/32"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

8 x 10"

Back

8½ x 9"

Top

8 x 10"

Are stays fitted with nuts or riveted over

with nuts

Working pressure by Rules

221 lbs.

Front plate at bottom: Material

S.

Tensile strength

26 to 30 tons

Thickness

1 1/32"

Lower back plate: Material

S.

Tensile strength

26 to 30 tons

Thickness

15/16"

Pitch of stays at wide water space

14" x 9½"

Are stays fitted with nuts or riveted over

with nuts

Working Pressure

256 lbs.

Main stays: Material

S.

Tensile strength

28 to 32 tons

Diameter

At body of stay,

2 7/8"

No. of threads per inch

6.

Area supported by each stay

275.1 sq in

Working pressure by Rules

221 lbs.

Screw stays: Material

S.

Tensile strength

26 to 30 tons

Diameter

At turned off part,

1 3/4"

No. of threads per inch

9.

Area supported by each stay

78 sq in



Working pressure by Rules 232<sup>lb</sup> Are the stays drilled at the outer ends No Margin stays: Diameter 1 3/4" + 2"  
No. of threads per inch 9 Area supported by each stay 101.2 Working pressure by Rules 230<sup>lb</sup>  
Tubes: Material S External diameter 3" Thickness 5/16" + 3/8" + 1/16" No. of threads per inch 9  
Pitch of tubes 4 1/4" x 4 1/4" Working pressure by Rules 225<sup>lb</sup> Manhole compensation: Size of opening in  
shell plate 20" x 16" Section of compensating ring (13 5/8" x 1 3/4") x 3/16" x 2" No. of rivets and diameter of rivet holes 38 of 1 3/16" dia.  
Outer row rivet pitch at ends 10 1/2" Depth of flange if manhole flanged 3" 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  
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 Diameter of rivet holes and pitch  
of rivets in outer row in dome connection to shell

Type of Superheater

None

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 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 or  
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

FOR The foregoing is a correct description,  
SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

Manufacturer.

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

See Machy Report

Are the approved plans of boiler and superheater forwarded herewith Yes  
(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. Empire Foam Nwc Rpt. 99549.  
Yard No 1694

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

These Boilers have been constructed under special survey in accordance with the approved plans and the Society's Rules, and the materials and workmanship are good.

The Boilers have been efficiently installed on board the vessel and tested under steam under working conditions with satisfactory results.

See also Machy Rpt 4.

Survey Fee ... £ See Machy Rpt 4. When applied for, 19  
Travelling Expenses (if any) £ When received, 19

A. Watt

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 21 APR 1942

Assigned

See Nwc. J.C. 100,318



© 2021

Lloyd's Register  
Foundation