

pt. 5.

# REPORT ON BOILERS.

Wmc No. 51793.  
Sld No 23042

Port of Newcastle

Received at London Office **TUES NOV 20 1906**

No. in  
Reg. Book.

Survey held at

Gateshead

Date, first Survey

Dec 13 '05

Last Survey

Oct 25 1906

(Number of Visits 47)

on the

S.S. Ennisknock

Tons <sup>Gross</sup> 2825.22  
<sub>Net</sub>

Master A. Wallace

Built at Sunderland

By whom built

J. Blume & Co

When built 1906

Engines made at

Sunderland

By whom made

Wm. J. Dickinson & Sons

when made 1906

Boilers made at

Gateshead

By whom made

Clarke Chapman & Co

No. 2555 when made 1906

Registered Horse Power

Owners

Brook Steamship Co. Ltd.

Port belonging to

Glasgow

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

J. Spence & Sons

Letter for record S

Total Heating Surface of Boilers 555

Is forced draft fitted ☒

No. and Description of

Boilers One - single-ended

Working Pressure 80 lbs

Tested by hydraulic pressure to 160 lbs

Date of test 25/10/06

No. of Certificate 7349

Can each boiler be worked separately ☒

Area of fire grate in each boiler 24

No. and Description of

safety valves to each boiler

2, Spring Patent

Area of each valve 7.07

Pressure to which they are adjusted 80 lbs

Are they fitted with easing gear ☒

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork 15"

Mean dia. of boilers 9'-0"

Length 8'-6"

Material of shell plates Steel

Thickness 17/32

Range of tensile strength 27-32

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams S. Lap

long. seams S. Lap

Diameter of rivet holes in long. seams 1"

Pitch of rivets 3 1/2"

Lap of plates or width of butt straps 4 7/8"

Per centages of strength of longitudinal joint

72-2

Working pressure of shell by

rules 83 lbs

Size of manhole in shell 16" x 12"

Size of compensating ring 6" x 17/32"

No. and Description of Furnaces in each

boiler 2 - plain

Material Steel

Outside diameter 2'-9"

Length of plain part

64"

Thickness of plates

17/32"

Description of longitudinal joint S. Lap

No. of strengthening rings ☒

Working pressure of furnace by the rules 118 lbs

Combustion chamber

plates: Material Steel

Thickness: Sides 9/16"

Back 9/16"

Top 9/16"

Bottom 9/16"

Pitch of stays to ditto: Sides 11" x 10" Back 11" x 9 1/2"

Top 13" x 9 1/4" If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 85 lbs

Material of stays Steel

Diameter at

smallest part 1 3/8"

Area supported by each stay 110.0"

Working pressure by rules 80 lbs

End plates in steam space: Material Steel Thickness 1 1/8"

Pitch of stays 17" x 15 1/2" How are stays secured S. H. W.

Working pressure by rules 85 lbs

Material of stays Steel

Diameter at smallest part 2 1/4"

Area supported by each stay 259.0"

Working pressure by rules 114 lbs

Material of Front plates at bottom Steel

Thickness 1 1/8"

Material of

Lower back plate Steel

Thickness 1 1/8"

Greatest pitch of stays 12"

Working pressure of plate by rules 123 lbs

Diameter of tubes 3"

Pitch of tubes 4 1/4" x 4 1/4"

Material of tube plates Steel

Thickness: Front 1 1/8"

Back 5/8"

Mean pitch of stays 12 3/4"

Pitch across wide

water spaces 13"

Working pressures by rules 85 lbs

Girders to Chamber tops: Material Steel

Depth and thickness of

girder at centre 7" x 1 1/8"

Length as per rule 24"

Distance apart 13"

Number and pitch of Stays in each 1 - 11"

Working pressure by rules 97 lbs

Superheater or Steam chest: how connected to boiler None

Can the superheater be shut off and the boiler worked

separately ☒

Diameter ☒

Length ☒

Thickness of shell plates ☒

Material ☒

Description of longitudinal joint ☒

Diam. of rivet

holes ☒

Pitch of rivets ☒

Working pressure of shell by rules ☒

Diameter of flue ☒

Material of flue plates ☒

Thickness ☒

If stiffened with rings ☒

Distance between rings ☒

Working pressure by rules ☒

End plates: Thickness ☒

How stayed ☒

Working pressure of end plates ☒

Area of safety valves to superheater ☒

Are they fitted with easing gear ☒

## VERTICAL DONKEY BOILER

No. Description

Manufacturers of steel

Made at

By whom made

When made

Where fixed

Working pressure

tested by hydraulic pressure to

No. of Certificate

Fire grate area

Description of safety valves

No. of safety valves

Area of each

Pressure to which they are adjusted

If fitted with easing gear

If steam from main boilers can

enter the donkey boiler

Dia. of donkey boiler

Length

Material of shell plates

Thickness

Range of tensile

strength

Descrip. of riveting long. seams

Dia. of rivet holes

Whether punched or drilled

Pitch of rivets

Lap of plating

Per centage of strength of joint

Rivets

Working pressure of shell by rules

Thickness of shell crown plates

Radius of do.

No. of Stays to do.

Dia. of stays

Diameter of furnace Top

Bottom

Length of furnace

Thickness of furnace plates

Description of joint

Working pressure of furnace by rules

Thickness of furnace crown

plates

Stayed by

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

FOR CLARKE, CHAPMAN & CO. LTD.

Manufacturer.

Dates

of Survey

while building

During erection on board vessel - - -

Total No. of visits

7

CHAIRMAN

Is the approved plan of main boiler forwarded herewith

donkey

Lloyd's Register Foundation

W898-0020



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

This donkey boiler has been constructed under special survey & the materials & workmanship are found to be good. It has been satisfactorily fitted on board & mounted, & the safety Valves adjusted under steam.

RETAIN

RETAIN

Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee... £  
 Special ... £  
 Donkey Boiler Fee ... £ 2 2  
 Travelling Expenses (if any) £

When applied for,

monley  
 When received,  
 account  
 19

Thomas Field & Co. Coomber  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRI. NOV 23 1906

Assigned



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 Foundation