

REPORT ON BOILERS.

No. 29785

Received at London Office

Date of writing Report

192

When handed in at Local Office

6 JULY 1928

Port of *Sunderland*

No. in Survey held at

Sunderland

Date, First Survey

Last Survey

July 3 1928

Book.

S.S. "STREONSHALH"

(Number of Visits

Gross *3895*

Tons Net *2351*

ster

Built at

Sunderland

By whom built

W. Pickering & Co. Ltd.

Yard No.

222 When built *1928*

gines made at

Sunderland

By whom made

George Clark Ltd.

Engine No.

1159 When made *1928*

ilers made at

Do

By whom made

Do

Boiler No.

1159 When made *1928*

iminal Horse Power

315

Owners

Rowland & Mammoth S.S. Co. Ltd.

Port belonging to

Whitby

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Withowitzer Bergbau- & Eisenhütten-Gesellschaft

in Withowitzer

(Letter for Record

S

Heating Surface of Boilers

4834 sq. ft.

Is forced draught fitted

No

Coal or Oil fired

coal

and Description of Boilers

Two S.E. of 1st Mult. 2 SB.

Working Pressure

185 lbs.

tested by hydraulic pressure to

320 lbs.

Date of test

2/5/28

No. of Certificate

3990 Can each boiler be worked separately *Yes*

Area of Firegrate in each Boiler

67.5 sq. ft.

No. and Description of safety valves to each boiler

Two Spring loaded

Area of each set of valves per boiler

per Rule 15.49 sq. in.

Pressure to which they are adjusted

185 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

2'-0"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

2'-0"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

15'-9 1/32"

Length

10'-9"

Shell plates: Material

STEEL

Tensile strength

28 to 32 tons

Thickness

1 1/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R.L.

Long. seams

TR. D.B.S.

Diameter of rivet holes in

circ. seams 1 5/16"

long. seams

1 5/16"

Pitch of rivets

4" & 3 7/8"

Percentage of strength of circ. end seams

plate 67.3 to 68.8% FRONT

Percentage of strength of circ. intermediate seam

plate 43.2 to 45%

Percentage of strength of longitudinal joint

plate 85.81%

Working pressure of shell by Rules

182 lbs.

Thickness of butt straps

outer 1 1/8"

No. and Description of Furnaces in each Boiler

3. Co. (Mantle Suspension)

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

47 7/16"

Length of plain part

top 1"

Thickness of plates

bottom 3 1/32"

Description of longitudinal joint

Welded

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

Yes

Working pressure of furnace by Rules

186 lbs.

and plates in steam space: Material

STEEL

Tensile strength

26 to 30 tons

Thickness

1 3/8"

Pitch of stays

22 1/2" x 2 1/4"

How are stays secured

D.N. & WASNERS

Working pressure by Rules

184 lbs.

Tube plates: Material

front STEEL

Tensile strength

26 to 30 tons

Thickness

3/32" & 1/8" DOUBLING

Can pitch of stay tubes in nests

1 1/8"

Pitch across wide water spaces

14 1/2" & 8 3/4"

Working pressure

front 194 lbs., back 190

Orders to combustion chamber tops: Material

STEEL

Tensile strength

28 to 32 tons

Depth and thickness of girder

centre

8 1/2" x 1 3/4"

Length as per Rule

33"

Distance apart

10"

No. and pitch of stays

each

2 @ 10"

Working pressure by Rules

185 lbs.

Combustion chamber plates: Material

STEEL

Tensile strength

26 to 30 tons

Thickness: Sides

23/32"

Back

1/8"

Top

23/32"

Bottom

23/32"

Pitch of stays to ditto: Sides

10" x 10"

Back

10" x 9 1/8"

Top

10" x 10"

Are stays fitted with nuts or riveted over *NUTS*

Working pressure by Rules

180 lbs.

Front plate at bottom: Material

STEEL

Tensile strength

26 to 30 tons

Thickness

27/32"

Lower back plate: Material

STEEL

Tensile strength

26 to 30 tons

Thickness

1 1/8"

Pitch of stays at wide water space

10" x 9 1/2"

Are stays fitted with nuts or riveted over

Both

Working Pressure

203 lbs.

Main stays: Material

STEEL

Tensile strength

28 to 32 tons

Diameter

At body of stay, 2 7/8" & 3"

No. of threads per inch

6

Area supported by each stay

408" & 378"

Working pressure by Rules

189 & 192 lbs.

Screw stays: Material

STEEL

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

100"

Working pressure by Rules 180 lbs. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, -
or
Over threads 1 1/8", 2, & 2 1/4"
No. of threads per inch 9 Area supported by each stay 115 sq. in. Working pressure by Rules 183 lbs.
Tubes: Material STEEL External diameter { Plain 3 1/2" Thickness No. 8 W.C. No. of threads per inch 9
Stay 3 1/4" 1 1/8", 5/16", 1/4"
Pitch of tubes 4 3/8" & 4 1/2" Working pressure by Rules 208 lbs. Manhole compensation: Size of opening
shell plate IN BACK PLATE 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 1/2" 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 of rivets ✓
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 ✓ Manufacturers of { Tubes ✓
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 ✓
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 ✓
Rules ✓ Pressure to which the safety valves are adjusted ✓ Hydraulic test pressure ✓
tubes ✓ 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 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,
FOR GEORGE CLARK LIMITED

W.B. MULL Manufacturer

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

Are the approved plans of boiler and superheater forwarded herewith
(If not state date of approval.)

Total No. of visits

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

These boilers have been built under Special Survey & the materials & workmanship are good. On completion they were satisfactorily fitted on board the vessel. For notation see machinery report.

Survey Fee £ : : When applied for, 192
Travelling Expenses (if any) £ : : When received, 192

Barclay
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. 13 JUL 1928

Assigned

See pg. 1 attached



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Lloyd's Register
Foundation