

# REPORT ON BOILERS.

Std. No. 29785  
Mab No. 13323.

Received at London Office

7.11.1928

7.11.1928

of writing Report

6.6.1928

When handed in at Local Office

6.6.1928

Port of MIDDLESBROUGH.

3rd July 1928

Survey held at

STOCKTON.

Date, First Survey

24.11.27

Last Survey

6.6.1928

on the

S.S. STREONSHALH

(Number of Visits 12.)

Gross 3895

Tons Net 2351.

ter

Built at Sunderland

By whom built W. Pickersill & Sons

Yard No. 222

When built 1928

ines made at

Sunderland

By whom made

George Hark Ltd.

Engine No. 1159

When made 1928

diameter made at

Stockton

By whom made

Riley Bros (Boilermakers) Ltd.

Boiler No. 5788

When made 1928

inal Horse Power

315

Owners

Rowland & Mawood S.S. Co. Ltd.

Port belonging to

Whitby

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

Manufacturers of Steel

David Colville & Sons Ltd.

(Letter for Record S.)

al Heating Surface of Boilers

1010 sq. ft.

Is forced draught fitted

No

Coal or Oil fired

Coal

and Description of Boilers

One S.B.

Working Pressure 180 lbs.

ed by hydraulic pressure to

320 lbs.

Date of test

6.6.28

No. of Certificate

6646

Can each boiler be worked separately

✓

a of Firegrate in each Boiler

34 1/4 sq. ft.

No. and Description of safety valves to each boiler

Two spring loaded.

of each set of valves per boiler

per Rule 6.50"

as fitted 7.94"

Pressure to which they are adjusted

185 lbs.

Are they fitted with easing gear

Yes

ase of donkey boilers, state whether steam from main boilers can enter the donkey boiler

No

llest distance between boilers or uptakes and bunkers or woodwork

6'-0"

Is oil fuel carried in the double bottom under boilers

No

llest distance between shell of boiler and tank top plating

12" between decks

Is the bottom of the boiler insulated

gest internal dia. of boilers

10'-6"

Length

10'-6"

Shell plates: Material

Steel

Tensile strength

28/32

ickness

7/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

D.R.

seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams 1 1/16"

long. seams 1 5/16"

Pitch of rivets

3 1/4"

6 7/8"

centage of strength of circ. end seams

plate 67.8

rivets 51.2

Percentage of strength of circ. intermediate seam

plate

✓

centage of strength of longitudinal joint

plate 86.3

rivets 88.3

Working pressure of shell by Rules

181 lbs.

ickness of butt straps

outer 21"

inner 25"

No. and Description of Furnaces in each Boiler

2 plain

erial

Steel

Tensile strength

26/30

Smallest outside diameter

39"

th of plain part

top 78 1/4"

bottom 86 1/2"

Thickness of plates

crown 3/4"

bottom 1/4"

Description of longitudinal joint

Weld.

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

✓

Working pressure of furnace by Rules

180 lbs.

plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

27/32

Pitch of stays

15 x 13 1/4"

are stays secured

D.N.W.

Working pressure by Rules

180 lbs.

plates: Material

front Steel

back Steel

Tensile strength

26/30

Thickness

27/32

3/4"

pitch of stay tubes in nests

10 1/8"

Pitch across wide water spaces

14 x 8 1/2"

Working pressure

front 181 lbs.

back 196 lbs.

ers to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

entre

7 x 3/4" (double)

Length as per Rule

2'-6"

Distance apart

7 1/2"

No. and pitch of stays

ch

2 - 9 1/2"

Working pressure by Rules

190 lbs.

Combustion chamber plates: Material

Steel

ile strength

26/30

Thickness: Sides

21"

Back

5/8"

Top

21"

Bottom

1 1/2"

of stays to ditto: Sides

8 1/2 x 9 1/2"

Back

9 x 8 1/4"

Top

7 1/2 x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

ing pressure by Rules

181 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26/30

ness

27"

32"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

27"

32"

of stays at wide water space

14 x 8 1/4"

Are stays fitted with nuts or riveted over

nuts

ing Pressure

220 lbs.

Main stays: Material

Steel

Tensile strength

28/32

ipping

eter

At body of stay,

Over threads

2 3/8"

No. of threads per inch

6

Area supported by each stay

199 sq.

ing pressure by Rules

197 lbs.

Screw stays: Material

Steel

Tensile strength

26/30

eter

At turned off part,

Over threads

1 7/8"

No. of threads per inch

9

Area supported by each stay

74 1/4 sq.

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Lloyd's Register

W412-0151



GENER

Working pressure by Rules 203 lbs. Are the stays drilled at the outer ends no. Margin stays: Diameter { At turned off part, or Over threads 1 3/4" No. of threads per inch 9. Area supported by each stay 91.4 Working pressure by Rules 200 lbs. Tubes: Material iron External diameter { Plain 3 1/4" 6 3/16" Stay 3" 6 3/4" Thickness { 8 W.G. 7/16" No. of threads per inch 9. Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules p. 230, s 200 lbs. Manhole compensation: Size of opening shell plate 20" x 16" Section of compensating ring 8" x 1" No. of rivets and diameter of rivet holes 40 - 1 1/8". Outer row rivet pitch at ends 8" Depth of flange if manhole flanged - 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 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 press tubes, castings and after assembly in place Are drain cocks or valves to free the superheater from water where necessary

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yls. RILEY BROS. (BOILERMAKERS) LIMITED. The foregoing is a correct description, J. H. Shields. SECRETARY

Dates of Survey { During progress of work in shops - - - 1927 Nov 24-30 Dec 7-15-23 1928 Jan 4 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yls. while building { During erection on board vessel - - - Feb 24-Mar 6-May 1-25-Jun 1-6 Total No. of visits 12-14

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler is a duplicate of Messrs Riley's No. 5555 (Ind. Rpt. No 12273) The materials and workmanship are good. This boiler has been built under special survey in accordance with the Rules and approved plan. This boiler has been satisfactorily fitted in the vessel (twice) & the safety valves adjusted under them.

Survey Fee ... £ 6-14-0 When applied for, 192 Monthly A/c Travelling Expenses (if any) £ : : When received, 192

J. H. Shields. M. P. R. A. Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute 13 JUL 1928 Assigned See Eld. J.E. rpt No. 29485