

REPORT ON BOILERS.

No. 29201

Received at London Office 22 DEC 1925

Date of writing Report

192

When handed in at Local Office

21 DEC 1925

Port of

Sunderland.

No. in Reg. Book.

Survey held at

Sunderland.

Date, First Survey

Last Survey

Dec. 17 1925

(Number of Visits

Gross

Tons

Net

on the

S.S. "HAUXLEY"

Master

Built at

By whom built

Tanner & Co. Ltd.

Yard No. 96

When built

Engines made at

Sunderland

By whom made

Geo. Black & Co. Ltd.

Engine No. 1145

When made

Boilers made at

do

By whom made

do

Boiler No. 1145

When made

Nominal Horse Power

163.5

Owners

Broomhill Collieries Ltd.

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

David Brown & Co. Ltd.

(Letter for Record 5)

Total Heating Surface of Boilers

2802 sq. ft.

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

2 S.S. Smith

Working Pressure 180 lbs.

Tested by hydraulic pressure to

320 lbs.

Date of test

19/11/25

No. of Certificate

3926

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

40 sq. ft.

No. and Description of safety valves to each boiler

2 @ 1 1/2"

Area of each set of valves per boiler

per Rule 8.975 sq. in.

as fitted

9.816 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

12" 8" baffle

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

1-6"

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

12-6"

Length

10-6"

Shell plates: Material

Steel

Tensile strength

28 to 32 tons

Thickness

1 1/2"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end 2 P.L.

long. seams

T.R. D.B.S.

Diameter of rivet holes in

circ. seams

1 1/8"

Pitch of rivets

3 1/4"

Percentage of strength of circ. end seams

plate 67.6%

rivets 43.3%

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 85.6%

rivets 89.9%

Working pressure of shell by Rules

182 lbs.

Thickness of butt straps

outer 1 1/8"

inner 1 1/8"

No. and Description of Furnaces in each Boiler

Two Flights

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

42 1/8"

Length of plain part

top

bottom

Thickness of plates

crown 3/8"

bottom 3/8"

Description of longitudinal joint

Welded

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

Working pressure of furnace by Rules

190 lbs.

End plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/2"

Pitch of stays

1 1/2" x 1 1/2"

How are stays secured

S.W. & W.

Working pressure by Rules

180 lbs.

Tube plates: Material

front Steel

back Steel

Tensile strength

32 to 30 tons

Thickness

1 1/8"

3 1/4"

Mean pitch of stay tubes in nests

10 1/4"

Pitch across wide water spaces

14 1/2"

Working pressure

front 183 lbs.

back 191

Girders to combustion chamber tops: Material

Steel

Tensile strength

28 to 32 tons

Depth and thickness of girder

at centre

Length as per Rule

30"

Distance apart

9"

No. and pitch of stays

in each

2 @ 9 1/2"

Working pressure by Rules

183

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

3/32"

Back

1/8"

Top

1/8"

Bottom

3/32"

Pitch of stays to ditto: Sides

10 1/2" x 9 1/2"

Back

9" x 9 1/2"

Top

9" x 9 1/2"

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

1 1/8"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/8"

Pitch of stays at wide water space

15"

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

230 lbs.

Main stays: Material

Steel

Tensile strength

28 to 32 tons

Diameter

At body of stay, 2 3/8"

or Over threads 2 5/8"

No. of threads per inch

6

Area supported by each stay

306 sq. in.

Working pressure by Rules

194 lbs.

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

Diameter

At turned off part, 1 3/4"

or Over threads 1 3/4"

No. of threads per inch

9

Area supported by each stay

99 sq. in.

W 400 00 15

Working pressure by Rules *182 lbs.* Are the stays drilled at the outer ends *Yes* Margin stays: Diameter *At turned off part, 1 1/2" 8 2"*
 No. of threads per inch *9* Area supported by each stay *114"* Working pressure by Rules *182 lbs.*
 Tubes: Material *Steel* External diameter *Plain 5 1/2"* Thickness *8 1/2"* No. of threads per inch *9*
 Pitch of tubes *4 3/8" x 4 1/2"* Working pressure by Rules *215 lbs.* Manhole compensation: Size of opening in
 shell plate *16" x 12"* Section of compensating ring *8" x 1 1/2"* No. of rivets and diameter of rivet holes *30 @ 1 1/2"*
 Outer row rivet pitch at ends *8 1/4"* 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 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 *-* 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 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 *-* 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. S. Spence

Manufacturer.

Dates of Survey *During progress of work in shops - Please see Machy. Rpt.* Are the approved plans of boiler and superheater forwarded herewith *Yes*
while building - During erection on board vessel - - - (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 tested by hydraulic pressure to 320 lbs. & found sound & tight, they were then satisfactorily fitted on board the vessel for notation see machinery report.*

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

W. S. Spence
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 29 DEC 1925

Assigned



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