

# REPORT ON BOILERS.

No. 47211

Received at London Office - 9 NOV 1927

Date of writing Report

192

When handed in at Local Office

31.10.1927

192

Port of

Glasgow

No. in Survey held at

Glasgow

Date, First Survey

31.1.27

Last Survey

27.10.1927

on the new steel **S/S PLANTER**

(Number of Visits

86

Gross

Tons

Net

Master

Built at

Glasgow

By whom built

Charles Connell & Co. Ltd.

Yard No. 408

When built 1927

Engines made at

Glasgow

By whom made

David Rowan & Co. Ltd.

Engine No. 855

When made 1927

Boilers made at

Glasgow

By whom made

David Rowan & Co. Ltd.

Boiler No. 855

When made 1927

Nominal Horse Power

524

Owners

T & J. Harrison

Port belonging to

Liverpool

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Company of Scotland

(Letter for Record (r) ✓)

Total Heating Surface of Boilers

1242 sq ft

Is forced draught fitted

no ✓

Coal or Oil fired

coal ✓

No. and Description of Boilers

one single ended ✓

Working Pressure

120 ✓

Tested by hydraulic pressure to

230

Date of test

22-8-27

No. of Certificate

17547

Can each boiler be worked separately

-

Area of Firegrate in each Boiler

350 sq ft

No. and Description of safety valves to each boiler

11.5

Pressure to which they are adjusted

two direct spring ✓

Area of each set of valves per boiler

per Rule

as fitted

11.86

Are they fitted with easing gear

yes ✓

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

10" ✓

Is oil fuel carried in the double bottom under boilers

no ✓

Smallest distance between shell of boiler and upper deck

15 1/4" ✓

Is the bottom of the boiler insulated

yes ✓

Largest internal dia. of boilers

12'-6"

Length

10'-6"

Shell plates: Material

Steel ✓

Tensile strength

28-32 tons

Thickness

23/32

Are the shell plates welded or flanged

no ✓

Description of riveting: circ. seams

end

DBS. TR ✓

Long. seams

DBS. TR ✓

Diameter of rivet holes in

circ. seams

13/16

Pitch of rivets

2.367" ✓

Percentage of strength of circ. end seams

plate

65.7

Percentage of strength of circ. intermediate seam

plate

50.2

Percentage of strength of longitudinal joint

plate

84.24

Working pressure of shell by Rules

120

Thickness of butt straps

outer

9/16

inner

7/8

Material

Steel ✓

No. and Description of Furnaces in each Boiler

Two plain ✓

Length of plain part

top

75"

bottom

75"

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

none ✓

Working pressure of furnace by Rules

122

Stays and plates in steam space: Material

Steel ✓

Tensile strength

26-30 tons

Thickness

1 1/16" ✓

Pitch of stays

17 1/4" x 23 3/4" ✓

How are stays secured

D.N. ✓

Working pressure by Rules

121

Stays and plates: Material

front

Steel ✓

back

Steel ✓

Tensile strength

26-30 tons

Thickness

13/16" ✓

23/32" ✓

Pitch of stay tubes in nests

12.1875"

Pitch across wide water spaces

14 1/2" ✓

Working pressure

front

129

back

124

Stays and plates to combustion chamber tops: Material

Steel ✓

Tensile strength

28-32 tons

Depth and thickness of girder

No. and pitch of stays

2 @ 7 1/4" x 5" ✓

Length as per Rule

30.7

Distance apart

9.875" ✓

Working pressure by Rules

122

Combustion chamber plates: Material

Steel ✓

Tensile strength

26-30 tons

Thickness: Sides

19/32" ✓

Back

9/16" ✓

Top

19/32" ✓

Bottom

15/16" ✓

Pitch of stays to ditto: Sides

9 3/4" x 9 3/4" ✓

Back

9 x 9 ✓

Top

9 1/8" x 9 3/4" ✓

Are stays fitted with nuts or riveted over

nuts ✓

Working pressure by Rules

126

Front plate at bottom: Material

Steel ✓

Tensile strength

26-30 tons

Thickness

13/16" ✓

Lower back plate: Material

Steel ✓

Tensile strength

26-30 tons

Thickness

5/8" ✓

Pitch of stays at wide water space

13 x 9 ✓

Are stays fitted with nuts or riveted over

nuts ✓

Working Pressure

125

Main stays: Material

Steel ✓

Tensile strength

28-32 tons

Diameter

At body of stay,

3 1/2" ✓

No. of threads per inch

6 ✓

Area supported by each stay

419 sq" ✓

Working pressure by Rules

131

Screw stays: Material

iron ✓

Tensile strength

21 1/2 tons

Diameter

At turned off part,

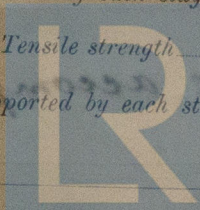
1 3/8" ✓

No. of threads per inch

9 ✓

Area supported by each stay

81



Lloyd's Register Foundation  
W350-0092



pt. 9.  
Report  
Date of survey  
No. in reg. Book.  
2286  
Tonnage  
Nominal Horse Power  
No. of Main  
No. of Donkey  
Steam Press  
in Main  
in Donkey  
Last  
Particulars  
Periodical  
cause of  
account of  
besides be  
lates and  
in damage  
offered  
Was a dan  
old the Sur  
Do.  
If this was  
And what  
Also what  
Surveyor  
Did the Sur  
Did the Su  
Did the Su  
Did the Su  
Did the Su  
Has screw  
Has shaft  
Has the  
State the  
If the Sur  
Gen  
(m)  
is  
Com  
Survey  
Special  
Travell  
Com  
Assi

Working pressure by Rules 125 Are the stays drilled at the outer ends no ✓ Margin stays: Diameter { At turned off part, or Over threads 1 1/2" ✓

No. of threads per inch 9 ✓ Area supported by each stay 99.0" Working pressure by Rules 126

Tubes: Material Iron ✓ External diameter { Plain 3 1/2" ✓ Stay 3 1/2" ✓ Thickness { 8 W.S. ✓ 1/4 & 5/16" ✓ No. of threads per inch 9 ✓

Pitch of tubes 4 1/8" x 4 1/8" ✓ Working pressure by Rules 215 Manhole compensation: Size of opening in shell plate 19" x 15" ✓ Section of compensating ring 5 1/2" x 23" ✓ No. of rivets and diameter of rivet holes 38 @ 1 1/2" ✓

Outer row rivet pitch at ends 5 1/8" ✓ Depth of flange if manhole flanged 3" ✓ Steam Dome: Material none ✓

Tensile strength 20T 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 none 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

The foregoing is a correct description,  
For David Rowan & Co. Ltd. Manufacturer.  
Arch. H. Emerson

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

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
Total No. of visits 86

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

The materials and workmanship are good.  
The boiler has been constructed under Special Survey in accordance with the Rules. It has been satisfactorily fitted on board the vessel.  
The safety valves are not yet adjusted.

*[Faint handwritten notes and stamps in the lower section of the form, including "See accompanying report" and various dates and signatures.]*

Survey Fee ... £ 8 : 6 : When applied for, 4.11.1927  
Travelling Expenses (if any) £ : : When received, 8.11.1927

S. C. Davis  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 8 - NOV 1927

Assigned See accompanying report M

