

## REPORT ON BOILERS.

48200  
#7937  
No. #7940

Received at London Office

25 JAN 1928

25 JAN 1928

Date of writing Report

192

When handed in at Local Office

7.5.1928 Port of

Glasgow

No. in Survey held at  
Reg. Book.

Glasgow

Date, First Survey

8.12.27

Last Survey

2.5.28 192

(Number of Visits 19)

Gross 6758  
Net 3949

on the new steel M/V "CLYDEFIELD"

Master

Built at

Glasgow

By whom built

W &amp; W Henderson &amp; Co. Ltd

Yard No. 808

When built 1928

Engines made at

Glasgow

By whom made

Harland &amp; Wolff Ltd

Engine No. 808

When made 1928

Boilers made at

Glasgow

By whom made

W &amp; W Henderson &amp; Co. Ltd

Boilers No. 808

When made 1928

Nominal Horse Power

647

Owners

Huntingdon Ltd

Port belonging to

Newcastle

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Gutehoffnungshütte A.G. Oberhausen

D. Schiller &amp; Co. Ltd

(Letter for Record 15)

Total Heating Surface of Boilers

2924 sq ft

Is forced draught fitted

yes

Coal or Oil fired

oil

No. and Description of Boilers

two single ended

Working Pressure

120

Tested by hydraulic pressure to

230

Date of test

12-4-28

No. of Certificate

17861

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

two high lift

Area of each set of valves per boiler

(per Rule)

10.84 sq ft

as fitted 11.98 sq ft

Pressure to which they are adjusted

Are they fitted with easing gear

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

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

11-10 3/8"

Length

11-6"

Shell plates: Material

Steel

Tensile strength 28-32 tons

Thickness

1 1/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end - DR

long. seams

DBS, TR

Diameter of rivet holes in

circ. seams 1"

long. seams 1 1/16"

Pitch of rivets

4"

Percentage of strength of circ. end seams

plate 75%

rivets 47.1

Percentage of strength of circ. intermediate seam

plate 75%

rivets 47.1

Percentage of strength of longitudinal joint

plate 84.8%

rivets 87.5%

combined 91.6%

Working pressure of shell by Rules

121

Thickness of butt straps

outer 5/8"

inner 3/4"

No. and Description of Furnaces in each Boiler

Two Deighton

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

41.25"

Length of plain part

top 1"

bottom 1"

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

128

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

53/64"

Pitch of stays

15" x 14"

How are stays secured

DN

Working pressure by Rules

121

Tube plates: Material

front Steel

back "

Tensile strength

26-30 tons

Thickness

49/64"

41/64"

Mean pitch of stay tubes in nests

7 1/2"

Pitch across wide water spaces

13 1/2"

Working pressure

front 120.5

back 262

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

2 @ 7 1/2" x 8"

Length as per Rule

32.375"

Distance apart

9"

No. and pitch of stays

in each

2 @ 10"

Working pressure by Rules

121

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

37/64"

Back

19/32"

Top

37/64"

Bottom

37/64"

Pitch of stays to ditto: Sides

10" x 9"

Back

10" x 10"

Top

10" x 9"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

121

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

49/64"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

49/64"

Pitch of stays at wide water space

14"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

121

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay

2 1/4"

No. of threads per inch

6

Area supported by each stay

255 sq in

Working pressure by Rules

136

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part, or over threads

1 1/2"

No. of threads per inch

9

Area supported by each stay

100 sq in



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 5/8"  
No. of threads per inch 9 Area supported by each stay 120 sq Working pressure by Rules 126  
Tubes: Material Iron External diameter { Plain 2 3/4" Stay 2 1/2" Thickness { 10 L W G 5/16 & 3/8" No. of threads per inch 9  
Pitch of tubes 3 3/4" & 3 1/4" Working pressure by Rules 175 Manhole compensation: Size of opening in shell plate 20 x 16 Section of compensating ring 6 1/2 x 1/16 No. of rivets and diameter of rivet holes 42 @ 1 5/16"  
Outer row rivet pitch at ends 11 5/8" Depth of flange if manhole flanged 3" Steam Dome: Material none  
Tensile strength 808 Thickness of shell 1/4" 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  
How connected to shell Inner radius of crown Working pressure by Rules  
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 & WILKINSON & CO., LTD. Manufacturer.  
S. J. Davis

Dates of Survey { During progress of work in shops - - 127 Dec 8 (1928) Jan 10-30 Feb 8-16-28 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
while building { During erection on board vessel - - Mar 9-15-22-29 Apr 6-12-13-16-17-19-20 Total No. of visits 19  
23 May 2

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

The materials and workmanship are good.  
The boilers have been constructed under special survey in accordance with the Rules.

Survey Fee (FORCED DRAUGHT) 24 : 8  
Travelling Expenses (if any) £ 19 : 10

When applied for, 8 - MAY 1928  
When received, 1 June 1928

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

Committee's Minute GLASGOW 8 - MAY 1928

Assigned TRANSMIT TO LONDON



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