

Rpt. 5a.

## REPORT ON BOILERS.

No. 19248

Date of writing Report

25.8.30

1930

When handed in at Local Office

19-12-

1930

Received at London Office

Port of Greenock

No. in  
Reg. Book.

Survey held at

Greenock

Date, First Survey

15th May 1930

Last Survey

14th Decr

1930

on the

T.S.S. "ABEILLE" No 16

(Number of Visits

20)

Gross

282.33

Tons

Net

3.14

Master

Built at

P. Elongow

By whom built

Ferguson Bros Ltd

Yard No.

300

When built

1930

Engines made at

P. Elongow

By whom made

Ferguson Bros Ltd

Engine No.

300

When made

1930

Boilers made at

Greenock

By whom made

John &amp; McCandless

Boiler No.

199

When made

1930

Nominal Horse Power

Owners Cie de Remorq. &amp; de Sauvetage "Les Abeilles"

Port belonging to

Havre

## MULTITUBULAR BOILERS MAIN.

Manufacturers of Steel

Vereinigte Stahlwerke  
Stahl Co. of Scotland, Milkowitzer Bergbau

(Letter for Record

\$

✓

Total Heating Surface of Boilers

2720 sq ft

Is forced draught fitted

yes

Coal

Oil fired

Coal

No. and Description of Boilers

one single ended

1.5B.

Working Pressure

180

Tested by hydraulic pressure to

320

Date of test

22/8/30

No. of Certificate

1962

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

69 sq ft

No. and Description of safety valves to each boiler 2 Lockburns Improved High Lift.

Area of each set of valves per boiler

per Rule

8.7

as fitted

9.81 sq ft

Pressure to which they are adjusted

185 lb/sq in

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"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top

OFF FLOORS.

4 1/2"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

15.9416"

Length

11.6"

Shell plates: Material

S

Tensile strength

29.33

Thickness

19/32"

Are the shell plates welded or flanged

✓

Description of riveting: circ. seams

end

inter.

✓

long. seams

T R + D B S

Diameter of rivet holes in

circ. seams

11/32"

long. seams

1 5/16"

Pitch of rivets

3/4"

9/16"

✓

Percentage of strength of circ. end seams

plate

66.3

rivets

44

Percentage of strength of circ. intermediate seam

plate

85.6

rivets

86.25

Percentage of strength of longitudinal joint

plate

85.6

rivets

86.25

Working pressure of shell by Rules

186

Thickness of butt straps

outer

3/32"

inner

3/32"

No. and Description of Furnaces in each Boiler

3 Deighton

30%

Material

S

Tensile strength

26.30

Smallest outside diameter

4'-1 1/4"

Length of plain part

top

✓

bottom

Thickness of plates

crown

5/8"

bottom

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

185

End plates in steam space: Material

S

Tensile strength

26.30

Thickness

1 1/8"

Pitch of stays

19.5 x 16"

How are stays secured

DN

Working pressure by Rules

185

Tube plates: Material

front

back

Steel

Tensile strength

26.30

Thickness

3/32"

23/32"

Mean pitch of stay tubes in nests

9.28"

Pitch across wide water spaces

13 1/2"

Working pressure

front

193

back

211

Girders to combustion chamber tops: Material

S

Tensile strength

29.33

Depth and thickness of girder

at centre

10' 3 1/4" (2)

Length as per Rule

3' 1 1/2"

Distance apart

93/4"

No. and pitch of stays

in each

3 at 83/4"

Working pressure by Rules

185

Combustion chamber plates: Material

S

Tensile strength

26.30

Thickness: Sides

1 1/16"

Back

2 1/32"

Top

1 1/16"

Bottom

3/4"

Pitch of stays to ditto: Sides

83/4" x 9 1/4"

Back

8" x 9 1/2"

Top

83/4" x 9 3/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

194

Front plate at bottom: Material

S

Tensile strength

26.30

Thickness

3/32"

Lower back plate: Material

S

Tensile strength

26.30

Thickness

13/16"

Pitch of stays at wide water space

13 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

192

Main stays: Material

S

Tensile strength

28.32

Diameter

At body of stay,

or

Over threads

2 7/8"

No. of threads per inch

6

Area supported by each stay

3 1/2 sq in

Working pressure by Rules

195

Screw stays: Material

S

Tensile strength

26.30

Diameter

At turned off part,

or

Over threads

1 5/8"

No. of threads per inch

9

Area supported by each stay

60 sq in

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Lloyd's Register  
Foundation



Working pressure by Rules **200** Are the stays drilled at the outer ends **No** Margin stays: Diameter **17/8"**  
 No. of threads per inch **9** Area supported by each stay **102"** Working pressure by Rules **200**  
 Tubes: Material **Iron** External diameter **2 1/2"** Thickness **11/32 9/32"** No. of threads per inch **9**  
 Pitch of tubes **33 1/4 x 3 1/16"** Working pressure by Rules **194** Manhole compensation: Size of opening in  
 shell plate **16 1/2" x 20 1/2"** Section of compensating ring **3' 0" x 2' 8" 1 1/32"** No. of rivets and diameter of rivet holes **38 at 13/8"**  
 Outer row rivet pitch at ends **9 1/4"** Depth of flange if manhole flanged **3 1/4"** Steam Dome: Material  
 Tensile strength Thickness of shell Description of longitudinal joint  
 Diameter of rivet holes Pitch of rivets Percentage of strength of joint  
 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  
 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 22 inclusive for boilers been complied with

The foregoing is a correct description,  
 For **JOHN G. KINCAID & CO. LIMITED,** Director.  
*McCart*

Dates of Survey **During progress of work in shops - - - May 15-21-22-24 June 24-26-30 July 21-25** Are the approved plans of boiler forwarded herewith **Yes**  
 while building **During erection on board vessel - - - 30 Aug 1-4 8-11-15-18-21-22 Dec 11-14** Total No. of visits **20**

Is this Boiler a duplicate of a previous case **No** If so, state Vessel's name and Report No.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) **This Boiler has been built under Special Survey in accordance with the approved plan & the workmanship & material are of good quality & it is now securely fitted on board.**

**This report accompanies that of the machinery.**

*[Faint handwritten notes and stamps in the background]*

Survey Fee **£ 22 : 12 : -** When applied for, **26th August 1930**  
 Travelling Expenses (if any) **£ 00 : - -** When received, **30th August 1930**

**Wm Gordon-Mullein**  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 20 DEC 1930**  
 Assigned **SEE ACCOMPANYING MACHINERY REPORT.**