

## REPORT ON BOILERS.

No. 10.529

18 DEC 1930

Received at London Office

Date of writing Report

10

When handed in at Local Office

12<sup>th</sup> Dec

1930

Port of

BELFAST

No. in  
Surrey held at

BELFAST

Date, First Survey 8<sup>th</sup> July 1930Last Survey 11<sup>th</sup> Dec.

1930

6346 on the

STEELTWIN SCREW

LAGAN BANK

(Number of Visits 9)

Gross  
Tons  
Net

Master

Built at BELFAST

By whom built HARLAND &amp; WOLFF LTD.

Yard No. 879

When built 1930

Engines made at

BELFAST

By whom made

HARLAND &amp; WOLFF LTD.

Engine No. 879

When made 1930

Boilers made at

BELFAST

By whom made

HARLAND &amp; WOLFF LTD.

Boiler No. 879

When made 1930

Nominal Horse Power

880

Owners BANK LINE LD. (A. WEIR &amp; CO. LD. MGRS.)

Port belonging to

BELFAST

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

Manufacturers of Steel

Ed. Colville &amp; Sons Ltd.

(Letter for Record 6.)

Total Heating Surface of Boilers

1510 sq

Is forced draught fitted No.

Coal or Oil fired Oil

No. and Description of Boilers

One single-ended cylindrical

Working Pressure 120 lbs.

Tested by hydraulic pressure to

230 lbs.

Date of test 12/12/30

No. of Certificate 944

Can each boiler be worked separately

Area of Firegrate in each Boiler

53 1/2 sq

No. and Description of safety valves to each boiler

Two SPRING-LOADED IMPROVED HIGH LIFT.

Area of each set of valves per boiler

per Rule 2 sq 16 3/4"

as fitted 9.82 sq

Pressure to which they are adjusted 120 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

24"

Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top plating

27"

Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers

13'-0"

MEAN Length

11'-0"

Shell plates: Material

Steel

Tensile strength 28-32 tons

Thickness

3/32"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end double

Thickness of butt straps

outer 5/8"

inner 3/4"

No. and Description of Furnaces in each Boiler

Three - Morrison

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

39 3/8"

Length of plain part

top

bottom

Thickness of plates

crown 3/16"

bottom 3/16"

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

156 lbs.

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

7/8"

Pitch of stays

18"x18"

How are stays secured

double nuts &amp; washers - Screwed into end plates.

Working pressure by Rules

125 lbs.

End plates: Material

front Steel

back Steel

Tensile strength

26-30 tons

Thickness

3/4"

Mean pitch of stay tubes in nests

10.06"

Pitch across wide water spaces

14 1/4" x 9"

Working pressure

front 134 lbs.

back 198 lbs.

Orders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

centre

7'-1 1/2"

Length as per Rule

30"

Distance apart

9 1/2"

No. and pitch of stays

each

Three - 8 1/4"

Working pressure by Rules

149 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

3/16"

Back

3/16"

Top

3/16"

Bottom

3/4"

Pitch of stays to ditto: Sides

8 1/4" x 8 1/2"

Back

9" x 8 1/2"

Top

9 1/2" x 8 1/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

136 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

3/4"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

3/4"

Pitch of stays at wide water space

12 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

139 lbs.

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay,

or

Over threads

2 1/2"

No. of threads per inch

Six

Area supported by each stay

285.75 sq

Working pressure by Rules

155 lbs.

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part,

or

Over threads

1 3/8"

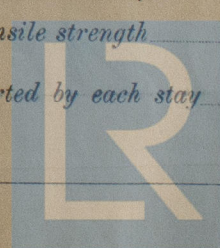
No. of threads per inch

Ten

Area supported by each stay

78.38 sq

WS24-0218

Lloyd's Register  
Foundation



Working pressure by Rules 129 lbs Are the stays drilled at the outer ends No. Margin stays: Diameter { At turn off part, 1 5/8" or Over threads }  
No. of threads per inch 2 1/2 Area supported by each stay 116.9 sq. Working pressure by Rules 130 lbs  
Tubes: Material wrought iron External diameter { Plain 3 1/4" Stay 3 1/4" } Thickness { No. 8 SWS 1/4" } No. of threads per inch 2 1/2  
Pitch of tubes 4 1/2" Working pressure by Rules Plain 130 lbs Stay 120 lbs Manhole compensation: Size of opening  
shell plate 16" x 12" Section of compensating ring 36" x 32" x 3/4" double No. of rivets and diameter of rivet holes 28 - 1 5/16"  
Outer row rivet pitch at ends 8" Depth of flange if manhole flanged Steam Dome: Material none  
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 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  
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 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 Yes.

The foregoing is a correct description,  
For HARLAND AND WOLFF LIMITED,  
As Marshall, Manufacture

Dates of Survey { During progress of work in shops - - }  
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

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. "FOYLE BANK" BEL. Rpt. No. 10509.

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

This boiler has been constructed to approved design under special survey. The materials and the workmanship are sound and good. It has been satisfactorily tested by hydraulic pressure. The boiler is efficiently fastened on a seat on the tank top at the forward end of the motor room. The safety valves were adjusted under steam.

Survey Fee ... £  
Travelling Expenses (if any) £  
When applied for, 19  
When received, 19

R. Lee Amess  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE. 30 DEC 1930

Assigned See other Bel JE. 10529