

REPORT ON BOILERS.

-2 JUN 1926

No. 9516

Attached to Gls rpt No. 45710

Date of writing Report

191

When handed in at Local Office

3 - 3 - 1926

Port of

Belfast.

Received at London Office

No. in Survey held at

Reg. Book.

on the

Donkey Boiler for the New Steel M.S. SPRINGBANK

Date, First Survey

17th Aug 1925

Last Survey

23rd Feb. 1926

(Number of Visits

27

Gross

Net

Master

Built at

Glasgow

By whom built

Harland & Wolff Ltd

When built

1926

Engines made at

Glasgow

By whom made

Harland & Wolff Ltd

When made

1926

Donkey Boilers made at

Belfast

By whom made

Harland & Wolff Ltd

When made

1926

Registered Horse Power

(Owners) Mrs Andrew Weir & Co (Bank Ltd) Port belonging to Glasgow.

MULTITUBULAR BOILERS

~~MANUFACTURED BY HARLAND & WOLFF LTD~~

Manufacturers of Steel

D. O'Huille & Sons Ltd

(Letter for record

S

Total Heating Surface of Boilers

1510

Is forced draft fitted

No. and Description of

Boilers

One Single Ended

Working Pressure

110

Tested by hydraulic pressure to

215 lbs

Date of test

23.2.26

No. of Certificate

881

Can each boiler be worked separately

Area of fire grate in each boiler

44 sq

No. and Description of

safety valves to each boiler

TWO SPRING LOADED

Area of each valve

9.62 sq

Pressure to which they are adjusted

110 lbs/sq

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

2'-1"

Inside

Mean dia. of boilers

13'-0"

Length

11'-0"

Material of shell plates

Steel

Thickness

3/4"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

No.

Descrip. of riveting: cir. seams

D.R.

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams

15/16"

Pitch of rivets

6'8"

Width of butt straps

1'-2 1/4"

Per centages of strength of longitudinal joint

rivets 116

Working pressure of shell by

rules

120 lbs

Size of manhole in shell

16 x 12"

Size of compensating ring

20 3/4 x 2 1/8 x 2 1/4"

No. and Description of Furnaces in each

boiler

3 Corrugated

Material

Steel

Outside diameter

3'4 1/8"

Length of plain part

top 15'6"

Thickness of plates

crown 1 1/4"

bottom 1 1/8"

Description of longitudinal joint

Weld.

No. of strengthening rings

Working pressure of furnace by the rules

156 lbs

Combustion chamber

plates: Material

Steel

Thickness: Sides

9/16"

Back

9/16"

Top

9/16"

Bottom

Pitch of stays to ditto: Sides

8'4" x 8'8"

Back

9' x 8'8"

Top 9' x 8'8" stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

134 lbs

Material of stays

Steel

Area at

smallest part

1.22

Area supported by each stay

1/8.5 sq

Working pressure by rules

129 lbs

End plates in steam space: Material

Steel

Thickness

1/8"

Pitch of stays

18' x 18'

How are stays secured

Nuts & Washers

Working pressure by rules

122 lbs

Material of stays

Steel

Area at smallest part

4.16 sq

Area supported by each stay

32 sq

Working pressure by rules

134 lbs

Material of Front plates at bottom

Steel

Thickness

3/4"

Material of

Lower back plate

Steel

Thickness

3/4"

Greatest pitch of stays

12'4" x 8'8"

Working pressure of plate by rules

190 lbs

Diameter of tubes

3 1/4"

Pitch of tubes

11' x 11'

Material of tube plates

Steel

Thickness: Front

3/4"

Back

3/4"

Mean pitch of stays

8.98"

Pitch across wide

water spaces

1'-2 1/4"

Working pressures

by rules

W.W.S.

134 lbs

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

2 @ 4" x 14"

Length as per rule

2'-6"

Distance apart

9'8"

Number and pitch of Stays in each

3 @ 8'4"

Working pressure by rules

141 lbs

Steam dome: description of joint to shell

None

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

SUPERHEATER.

Type

None.

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

The foregoing is a correct description,

FOR HARLAND AND WOLFE LIMITED.

J. E. Ebleck

Manufacturer.

Dates

During progress of

work in shops

- 17.24

Sept 14.18.25

Oct 2.12.23

Nov. 19.25

Is the approved plan of boiler forwarded herewith

Yes.

while

building

- 27.27

Dec. 9.10.17.18

Jan. 4.15.27.28

board vessel

- 4.5.12.16.20.22.23

- 27

Total No. of visits

GENERAL REMARKS

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

This Boiler has been built under Special Survey, Materials & Workmanship good. Hydraulic test satisfactory. It is being shipped to Glasgow for installation in the vessel. This Boiler has now been fitted on board the above vessel in an efficient manner it has been examined under steam and found satisfactory. Safety valves adjusted to 110 lbs/sq. Wokers A. 1/32" F. 1/32".

Survey Fee

... £ 10 : 2 : 0

When applied for,

3rd March 1926

Travelling Expenses (if any) £

: 0 : 0

When received,

3.4.1926

Wm. Williams & Co. Ltd. & A. M. Crinick.
Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 1-JUN 1926

Assigned

See Gls Rpt. No. 45710

Lloyd's Register

Foundation

W1170-0018