

Rpt. 5a.

REPORT ON BOILERS

No. 5, 1911
SAT. AUG. 12, 1911Date of writing Report *Sept. 14th 1911* When handed in at Local Office

11.8.11

Port of

Received at London Office

MIDDLESBROUGH-ON-TEES.

No. in
Reg. Book.Survey held at *Middlesbrough*

Date, First Survey

1st May

Last Survey

8th Aug. 1911

(Number of Visits)

Gross *220*

Net

Master

Built at *Middlesbrough*

By whom built

*Smith's Dock Co. Ltd.*When built *1911*

Engines made at

N. Shields

By whom made

*The Shields Eng. & B. Co. Ltd.*when made *1911*

Boilers made at

Middlesbrough

By whom made

*Richardsons, Westgarth & Co. Ltd.*when made *1911*

Registered Horse Power

Owners

Leah & M. H. Ltd.

Port belonging to

Cardiff

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

*John Spencer & Sons Ltd.
David Colville & Sons Ltd.*

(Letter for record

(5)

Total Heating Surface of Boilers

1406 sq. ft.

Is forced draft fitted

No.

No. and Description of

Boilers *One S.E. Cyl. boiler*

Working Pressure

180 lbs.

Tested by hydraulic pressure to

*360 lbs.*Date of test *8.8.11*

No. of Certificate

4713

Can each boiler be worked separately

✓

Area of fire grate in each boiler

48 sq. ft.

No. and Description of

safety valves to each boiler

Two, Spring loaded

Area of each valve

4.9 sq. in.

Pressure to which they are adjusted

185 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

1'-6"

Mean dia. of boilers

13'-0"

Length

10'-6"

Material of shell plates

Steel

Thickness

1 3/4"

Range of tensile strength

28 3/4 - 32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

DR Lap

long. seams

DR S. Shirts

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

7 1/8"

Gap of plates or width of butt straps

1'-4 1/2"

Per centages of strength of longitudinal joint

rivets *88.7*

Working pressure of shell by

plate *85*

rules

183 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring

35" x 29 1/2" x 1 1/2"

No. and Description of Furnaces in each

boiler

Three plain

Material

Steel

Outside diameter

3'-4 1/2"

Length of plain part

top 6'-3 1/2"

Thickness of plates

*bottom 9'-2 1/2"*crown *3/4"*bottom *85 lbs.*

Description of longitudinal joint

Welded

No. of strengthening rings

✓

Working pressure of furnace by the rules

180 lbs.

Combustion chamber

plates: Material

Steel

Thickness: Sides

11/16"

Back

11/16"

Top

3/4"

Bottom

1"

Pitch of stays to ditto: Sides

10" x 8 1/2"

Back

10" x 8 1/4"

Top

10 1/2" x 10 1/2"

stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

183

Material of stays

Steel

Diameter at

smallest part

1.76

Area supported by each stay

106.3

Working pressure by rules

206

End plates in steam space: Material

Steel

Thickness

1 1/2"

Pitch of stays

10 1/2" x 10 1/2"

are stays secured

by nuts

Working pressure by rules

183

Material of stays

Steel

Diameter at smallest part

2.79"

Area supported by each stay

317.7

Working pressure by rules

200

Material of Front plates at bottom

Steel

Thickness

1"

Material of

Lower back plate

Steel

Thickness

1 1/2"

Greatest pitch of stays

16 1/8" x 8 1/4"

Working pressure of plate by rules

185

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4" x 4 3/4"

Material of tube plates

Steel

Thickness: Front

1"

Back

7/8"

Mean pitch of stays

11 1/2" x 9 1/2"

Pitch across wide

water spaces

14 1/2"

Working pressures by rules

182 lbs.

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

8 1/4" x 2"

Length as per rule

2'-8 1/2"

Distance apart

10 1/8"

Number and pitch of Stays in each

*20**10 1/2"*

Working pressure by rules

193 lbs.

Superheater or Steam chest: how connected to boiler

✓

Can the superheater be shut off and the boiler worked

✓

separately

✓

Diameter

✓

Length

✓

Thickness of shell plates

✓

Material

✓

Description of longitudinal joint

✓

Diam. of rivet

✓

Pitch of rivets

✓

Working pressure of shell by rules

✓

Diameter of flue

✓

Material of flue plates

✓

Thickness

✓

If stiffened with rings

✓

Distance between rings

✓

Working pressure by rules

✓

End plates: Thickness

✓

How stayed

✓

Working pressure of end plates

✓

Area of safety valves to superheater

✓

Are they fitted with easing gear

*✓**12.8.11*For and on behalf of
The foregoing is a correct description
RICHARDSONS, WESTGARTH & CO., Ltd.

Manufacturer.

Dates of Survey
During progress of
work in shops - -
During erection on
board vessel - - -1911. May 1. 11. 22. 26. June 1. 9. 14. 26. July 4.
12. 18. 26. Aug. 4. 8.
See Newcastle Report No. 61027.Is the approved plan of boiler forwarded herewith *With report*
MANAGING DIRECTOR
Total No. of visits *14*

GENERAL REMARKS

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

This boiler has been constructed under Special Survey, is of good material and workmanship, and has been tested by hydraulic pressure with satisfactory results. This boiler has now been efficiently secured on board.

Survey Fee

... £ 4 : 14 :

When applied for,

MONTHLY A/c

Travelling Expenses (if any) £

When received,

19

Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

TUE. NOV. 7-1911

Assigned

Lloyd's Register
Foundation

005704-005725-0202