

Rpt. 5a.

NEWCASTLE ON TYNE

No. 60692

REPORT ON BOILERS.

No. 6955

MON. SEP. 4 - 1911

SAT. AUG. 12. 1911

Received at London Office

Date of writing Report

19

When handed in at Local Office

11. 8

19

Port of

MIDDLESBROUGH-ON-TEES

No. in Survey held at

Middlesbrough

Date, First Survey

11. May

Last Survey

4. Aug. 1911

Reg. Book.

25 Supp. on the Main Boiler No. 4673 for the S. Miura

(Number of Visits)

13

Gross

220

Tons

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. & S. S. Co. Ltd.

when made

1911

Boilers made at

Middlesbrough

By whom made

Richardsons, Westgarth & Co. Ltd.

when made

1911

Registered Horse Power

Owners

Neale and Neel

Port belonging to

Cardiff

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

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

(Letter for record

(S)

Total Heating Surface of Boilers

1406 sq. ft.

Is forced draft fitted

No.

No. and Description of

Boilers One S.E. boiler hull

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

4. 8. 11.

No. of Certificate

4710

Can each boiler be worked separately

✓

Area of fire grate in each boiler

48 sq. ft.

safety valves to each boiler

Two, spring loaded

Area of each valve

4.9 sq. in.

Pressure to which they are adjusted

185 lbs per 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

1'-6"

Int. 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

D.R. Lap

long. seams

D.B.S. 5 Rivets

Diameter of rivet holes in long. seams

1 1/16"

Pitch of rivets

7 1/8"

Lap of plates or width of butt straps

1'-4 1/4"

Per centages of strength of longitudinal joint

88.7

Working pressure of shell by

rules

183 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

35" x 29 1/2" x 1 3/4"

No. and Description of Furnaces in each

boiler Three plain

Material Steel

Outside diameter

3'-4 1/4"

Length of plain part

top 6'-3 3/8"

Thickness of plates

bottom 9'-2 1/2"

crown 3/4"

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 1 1/16"

Back 1 1/16"

Top 3/4"

Bottom 1"

Pitch of stays to ditto: Sides 10" x 8 1/2"

Back 10 3/8" x 8 1/4"

Top 10 1/8" x 10 1/2"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

183

Material of stays

Steel

Diameter at

smallest part

1 5/8"

Area supported by each stay

106.3

Working pressure by rules

206

End plates in steam space: Material

Steel

Thickness

1 3/32"

Pitch of stays

19 1/2" x 18"

How are stays secured

D.R. & W.

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 5/16"

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 7/8" 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 1/16"

Distance apart

10 1/8"

Number and pitch of Stays in each

20

Pitch

10 1/2"

Working pressure by rules

193 lbs

Superheater or Steam chest: how connected to boiler

None

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

holes

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

✓

For and on behalf of

The foregoing is a correct description,

RICHARDSONS, WESTGARTH & Co., Ltd.

Manufacturer.

Dates

During progress of

work in shops - - -

1911. May 11. 23. 26. June 1. 9. 14. 26. July 4. 11. 18.

while

During erection on

board vessel - - -

26. Aug. 4. See Newcastle Report No. 60692

building

Total No. of visits

B

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

REQUEST

NO.

417

ATTACHED.

Survey Fee

...

...

£4 : 14 :

When applied for,

19.

Travelling Expenses (if any) £

:

:

When received,

19.

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

Committee's Minute

TUE. OCT. 31. 1911

Assigned



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Lloyd's Register

Foundation