

REPORT ON BOILERS.

No. 7528.

MON. SEP. 2 1912

Date of writing Report 16.8.12

When handed in at Local Office 16.8

10. Port of

MIDDLESBROUGH-ON-TEES.

No. in Survey held at

Stockton-on-Tees

Date, First Survey

As per first entry report

of Safety Reg. Book.

on the

Auxiliary Boiler of S.S. NURTURETON

(S.S. No 471)

Tons Gross 1089.60
Net 4506.99

Master

H. E. Howell

Built at

Stockton

By whom built

Messrs Roper & Sons

When built 1912

Engines made at

Stockton

By whom made

Messrs Blair & Co Ltd (1739) when made 1912

Boilers made at

Stockton

By whom made

Messrs Blair & Co Ltd (No. E. 188) when made 1912

Registered Horse Power

Owners

Chapman & Son

Port belonging to

Newcastle

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

Messrs John Spencer & Son

(Letter for record

(5)

Total Heating Surface of Boilers

1775

Is forced draft fitted

No. and Description of

Boilers

One single ended

Working Pressure

180

Tested by hydraulic pressure to

360

Date of test 21.6.12

No. of Certificate

4896

Can each boiler be worked separately

✓

Area of fire grate in each boiler

48 sq

No. and Description of

safety valves to each boiler

2 direct spring

Area of each valve

5.93 sq

Pressure to which they are adjusted

185

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

or uptakes and bunkers on

woodwork

2'-0"

External

Mean dia. of boilers

14'-0"

Length

10'-6"

Material of shell plates

steel

Thickness

1 1/8"

Range of tensile strength

28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

2 Riv lap

long. seams

2 B-3 Riv

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

8 3/8"

Lap of plates or width of butt straps

17 3/8" x 1 1/2"

Per centages of strength of longitudinal joint

5 Rivets per pitch

rivets 87.3

Working pressure of shell by

plate 85.8

rules

180

Size of manhole in shell

16" x 12"

Size of compensating ring

7 1/2" x 1 1/8"

No. and Description of Furnaces in each

boiler

3 Morrison

Material

steel

Outside diameter

41 3/8"

Length of plain part

top

Thickness of plates

crown 33

bottom 64

Description of longitudinal joint

weld

No. of strengthening rings

✓

Working pressure of furnace by the rules

188

Combustion chamber

plates: Material

steel

Thickness: Sides

1/2"

Back

1/2"

Top

1/2"

Bottom

Pitch of stays to ditto: Sides

9 1/4" x 9 1/4"

Back

9 1/4" x 9 1/4"

Top 9" x 9 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

180

Material of stays

steel

Diameter at

smallest part

1 1/2"

Area supported by each stay

90.19

Working pressure by rules

198

Pitch of stays

18" x 18"

How are stays secured

nuts + washers

Working pressure by rules

195

Material of stays

steel

Diameter at smallest part

2.79

Area supported by each stay

324

Working pressure by rules

226

Material of Front plates at bottom

steel

Thickness

1 1/2"

Material of

Lower back plate

steel

Thickness

1"

Greatest pitch of stays

14 1/2" x 9 1/2"

Working pressure of plate by rules

236

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4" x 4 3/4"

Material of tube plates

steel

Thickness: Front

1 1/2"

Back

1 1/2"

Mean pitch of stays

9 1/2"

Pitch across wide

water spaces

14 1/2"

Working pressures by rules

194

Girders to Chamber tops: Material

steel

Depth and thickness of

girder at centre

7 1/4" x 1 3/4"

Length as per rule

29 1/2"

Distance apart

9"

Number and pitch of Stays in each

2 @ 9 1/2"

Working pressure by rules

183

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

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

The foregoing is a correct description,

For BLAIR & Co. Limited

Geo. Netherthorpe

Manufacturer.

Is the approved plan of boiler forwarded herewith

SECRETARY.

yes

Dates of Survey

During progress of

work in shops - - -

During erection on

board vessel - - -

Total No. of visits

GENERAL REMARKS

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

This boiler has been built

under special survey, is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results. The boiler has now been satisfactorily secured on board, examined under steam and safety valves adjusted.

Survey Fee

...

£

When applied for.

19.

Travelling Expenses (if any) £

:

:

When received.

19.

Wm Morrison

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

Committee's Minute

TUE SEP 3 1912

Assigned



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Lloyd's Register
Foundation

W685-0004