

5a.

REPORT ON BOILERS.

No. 9878

WED. 7-NOV. 1917

Received at London Office

15/9/1917

Writing Report

101

When handed in at Local Office

15/9/1917

101

Port of

Middlesbrough

Survey held at

Stockton-on-Tees

Date, First Survey

10th May 1917

Last Survey

8th Sept^r 1917

Book.

on the

donkey boiler for the 5¹/₂" CARDIGAN

(Number of Visits 11)

Gross

(5¹/₂ to 603) Tons

Net

Built at

Stockton

By whom built

Messrs. Richardson Duck & Co

When built

es made at

Stockton

By whom made

Messrs. Blair & Co

When made

s made at

Stockton

By whom made

Messrs. J. Hudson & Co

ho 3638

When made

ered Horse Power

Owners

Port belonging to

TITUBULAR BOILERS—~~MAIN~~, ~~AUXILIARY~~ OR DONKEY.—Manufacturers of Steel

John Spencer & Sons.

for record

Total Heating Surface of Boilers

1240 ϕ

Is forced draft fitted

no

No. and Description of

one single ended

Working Pressure

100

Tested by hydraulic pressure to

200

Date of test

8/9/17

Certificate

5798

Can each boiler be worked separately

✓

Area of fire grate in each boiler

36 ϕ

No. and Description of

valves to each boiler

two direct spring

Area of each valve

7.07

Pressure to which they are adjusted

105 lb.

fitted with easing gear

yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

no

Least distance between boilers or uptakes and bunkers or woodwork on upper deck

Ext:

Mean dia. of boilers

11'-0"

Length

11'-0"

Material of shell plates

Steel

Thickness

2¹/₃₂

Range of tensile strength

29-33

Are the shell plates welded or flanged

no

Pitch of riveting: cir. seams

s. lap

long. seams

3. P. lap

Diameter of rivet holes in long. seams

1⁵/₁₆

Pitch of rivets

3¹/₂"Propeller 5th of plates or width of butt straps6¹/₂"

Per centages of strength of longitudinal joint

rivets

76.7

Working pressure of shell by

plate

73.14

Size of manhole in shell

16" x 12"

Size of compensating ring

5¹/₂" x2¹/₃₂

No. and Description of Furnaces in each

2 plain

Material Steel

Outside diameter

40¹/₂"

Length of plain part

8¹/₂"

Thickness of plates

crown

19¹/₃₂"

bottom

5¹/₈"

Description of longitudinal joint

weld

No. of strengthening rings

Working pressure of furnace by the rules

100

Combustion chamber

Material Steel

Thickness: Sides

17¹/₃₂"

Back

17¹/₃₂"

Top

17¹/₃₂"

Bottom

1¹/₁₆"

Pitch of stays to ditto: Sides

9¹/₂" x 8¹/₈"

Back

9 x 8¹/₄"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

110

Material of stays

Steel

Area

Diameter at

1st part

Area supported by each stay

78.75

Working pressure by rules

121

End plates in steam space: Material

Steel

Thickness

3¹/₄"

of stays

17¹/₂" x 1¹/₂"

How are stays secured

nuts

6 x 9¹/₁₆"

Working pressure by rules

103

Material of stays

Steel

Area

Diameter at smallest part

supported by each stay

236

Working pressure by rules

117

Material of Front plates at bottom

Steel

Thickness

3¹/₄"

Material of

back plate

Steel

Thickness

3¹/₄"

Greatest pitch of stays

13 x 8³/₄"

Working pressure of plate by rules

158

Diameter of tubes

3¹/₄"

of tubes

4¹/₂" x 4¹/₄"

Material of tube plates

Steel

Thickness: Front

3¹/₄"

Back

5¹/₈"

Mean pitch of stays

11

spaces

13³/₄"

Working pressures by rules

114

Girders to Chamber tops: Material

Steel

Depth and thickness of

at centre

6¹/₂" x 1¹/₄"

Length as per rule

28⁵/₁₆"

Distance apart

9¹/₂"

Number and pitch of Stays in each

2 at

8¹/₈"

ing pressure by rules

104

Superheater or Steam chest: ~~how~~ connected to boiler

none

Can the superheater be shut off and the boiler worked

ately

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

fitted with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

ing pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

SURVEY REQUEST

1145 ATTACHED.

The foregoing is a correct description,

Manufacturer.

During progress of

1917 May 10-17 30 June 20 July 4-12

Is the approved plan of boiler forwarded herewith

Yes

work in shops - -

Aug 10-16-30 Sept 3-8

Total No. of visits

11

During erection on

board vessel - -

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
 as tested by hydraulic pressure with satisfactory results. The boiler is to be
 used on board at this port. The boiler has now been satisfactorily secured
 on board, examined under steam and safety valves adjusted

Survey Fee

£ 4 : 3 : 0

When applied for,

Monthly Account

Travelling Expenses (if any) £

When received,

191

(Signed)

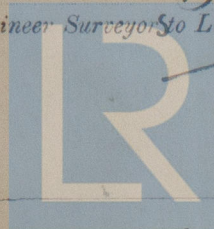
Wm Morrison & J. J. Skakle

Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute

FRI. 9-NOV. 1917

Signed



Lloyd's Register of Shipping

W505-0083