

REPORT ON BOILERS.

No. 23428

Port of

Sunderland

Received at London Office THUR. 12 SEP 1907

Survey held at

Sunderland

Date, first Survey 1st Nov 1906 Last Survey 2nd Aug. 1907.

(Number of Visits 84.)

Gross 3813.54

Tons Net 2433.34

on the

S. S. "Arnell"

er W. L. Newton

Built at

Sunderland

By whom built

Messrs J. L. Thompson & Sons When built 1907

nes made at

Sunderland

By whom made

Messrs J. Dickinson & Sons when made 1907

ers made at

Sunderland

By whom made

Messrs J. Dickinson & Sons when made 1907

istered Horse Power

Owners

W. R. Rea

Port belonging to Sunderland

ULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Messrs J. Spencer & Sons

atter for record S Total Heating Surface of Boilers 7357 Is forced draft fitted no No. and Description of

ilers one S.E. Cylindrical Mult Working Pressure 90 lbs Tested by hydraulic pressure to 180 lbs Date of test 25.4.07

of Certificate 2606 Can each boiler be worked separately Area of fire grate in each boiler 257 No. and Description of

ety valves to each boiler 2 spring Area of each valve 4.91 Pressure to which they are adjusted 95 lbs

e they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

allest distance between boilers or uptakes and bunkers or woodwork fitted on deck Mean dia. of boilers 10' 0" Length 9' 6"

aterial of shell plates steel Thickness 19/32 Range of tensile strength 28/32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams L. r. lap long. seams L. r. lap Diameter of rivet holes in long. seams 15/16 Pitch of rivets 3 1/8"

lap of plates on width of butt straps 6 1/2 Per centages of strength of longitudinal joint rivets 20.08 Working pressure of shell by

ules 94.5 lbs Size of manhole in shell 16 x 12 Size of compensating ring 7 1/8 x 19/32 No. and Description of Furnaces in each

boiler 2 plain Material steel Outside diameter 34 1/2 Length of plain part top 6' 5 1/2 Thickness of plates crown 1/2 bottom 2

Description of longitudinal joint single butt strap No. of strengthening rings Working pressure of furnace by the rules 101 lbs Combustion chamber

plates: Material steel Thickness: Sides 7/8 Back 7/8 Top 7/8 Bottom 7/8 Pitch of stays to ditto: Sides 10 5/8 x 11 1/2 Back 10 x 12 1/2

Top 11 1/2 x 7 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 105 lbs Material of stays steel Diameter at

smallest part 1.35 Area supported by each stay 125 Working pressure by rules 92.5 lbs End plates in steam space: Material steel Thickness 23/32

Pitch of stays 15 x 14 1/2 How are stays secured d. n. + w. Working pressure by rules 94 lbs Material of stays steel Diameter at smallest part 1.65

Area supported by each stay 217 1/2 Working pressure by rules 93.3 lbs Material of Front plates at bottom steel Thickness 23/32 Material of

Lower back plate steel Thickness 21/32 Greatest pitch of stays 14 1/4 x 12 1/2 Working pressure of plate by rules 96.5 lbs Diameter of tubes 5 1/4"

Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates steel Thickness: Front 23/32 Back 9/16 Mean pitch of stays 9 Pitch across wide

water spaces 13 1/4 Working pressures by rules 105 lbs Girders to Chamber tops: Material steel Depth and thickness of

girder at centre 5 5/8 x 1 1/4 Length as per rule 2' 1 23/32 Distance apart 7 1/2 Number and pitch of Stays in each 1-11 1/2

Working pressure by rules 95.1 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

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

VERTICAL DONKEY BOILER—No. Description Manufacturers of steel

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can

enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile

strength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Lap of plating Per centage of strength of joint Rivets Working pressure of shell by rules Thickness of shell crown plates

Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace

Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown

plates Stayed by Diameter of uptake Thickness of uptake plates Thickness of water tubes

The foregoing is a correct description,

J. Dickinson Manufacturer.

Dates
of Survey
while
building

During progress of
work in shops - - -
During erection on
board vessel - - -
Total No. of visits

See First Entry Report.

Is the approved plan of main boiler forwarded herewith

" " " donkey " "

W726-0120

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GENERAL REMARKS

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

This donkey boiler has been constructed under Special Survey. The workmanship and materials used are both of good quality, the boiler has been satisfactorily fitted on board, and the safety Valves adjusted under steam.

The amount of Entry Fee...	£	:	:	When applied for.
Special	£	:	:	19
Donkey Boiler Fee ...	£	:	:	When received.
Travelling Expenses (if any) £	:	:	:	19

K. W. Coomber.

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

Committee's Minute

FRI. 13 SEP 1907

Assigned

See minute on attached report



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