

## REPORT ON BOILERS.

Mab. No. 4281

Hull - 17345

TUES. 12 DEC 1905

Port of MIDDLESBROUGH-ON-TEES

Received at London Office

No. in Survey held at *Stockton*

Reg. Book.

Date, first Survey

*May 9<sup>th</sup>*

Last Survey

*Nov. 4<sup>th</sup> 1905*

(Number of Visits)

Built at *Donkey Boilers No 1993 for the fore S B Co s/s No 77.*

Master

Built at

*Goole*

By whom built

*Goole S B & Repg Co Ltd*

When built

*1905*

Engines made at

*Yarmouth*

By whom made

*Grabbie & Co Ltd*

when made

*1905*

Boilers made at

*Stockton*

By whom made

*Blair & Co Ltd*

when made

*1905*

Registered Horse Power

*67*

Owners

*E. B. Hutchinson*

Port belonging to

*Hull*

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel

(Letter for record)

Total Heating Surface of Boilers

Is forced draft fitted

No. and Description of

Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of

safety valves to each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

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

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by

rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each

boiler

Material

Outside diameter

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber

plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at

smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space: Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of

Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide

water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and thickness of

girder at centre

Length as per rule

Distance apart

Number and pitch of Stays in each

Working pressure by rules

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. *One*Description *Vertical 2 crown tubes*

Manufacturers of steel

*J. Spencer & Sons Ltd*Made at *Stockton*

By whom made

*J. Hudson & Co Ltd*

When made

*1905*

Where fixed

*Stokehole*

Working pressure

*90 lbs*

tested by hydraulic pressure to

*180 lbs*

No. of Certificate

*3454*

Fire grate area

*14 sq ft*

Description of safety valves

*Direct spring*

No. of safety valves

*One*

Area of each

*7 sq in*

Pressure to which they are adjusted

*90 lbs*

If fitted with easing gear

*yes*

If steam from main boilers can

enter the donkey boiler

*No*

Dia. of donkey boiler

*5'-0"*

Length

*9'-0"*

Material of shell plates

*Steel*

Thickness

*3/8"*

Range of tensile

strength

*27/32*

Descrip. of riveting long. seams

*2 x 7/8 in*

Dia. of rivet holes

*1 3/16*

Whether punched or drilled

*Drilled*

Pitch of rivets

*2 3/4"*

Lap of plating

*4 1/2"*

Per centage of strength of joint

Rivets

*85-7*

Working pressure of shell by rules

*91.5 lbs*

Thickness of shell crown plates

*19/32*

Radius of do.

*3'-9"*

No. of Stays to do.

*One*

Dia. of stays

*1 1/2"*

Diameter of furnace Top

*3'-11"*

Bottom

*4'-5"*

Length of furnace

*3'-7"*

Thickness of furnace plates

*15/32*

Description of joint

*2 x 7/8 in*

Working pressure of furnace by rules

*91 lbs*

Thickness of furnace crown

*19/32*

plates

*5/8"*

Stayed by

*Stayed 2'-9"*

Diameter of uptake

*13"*

Thickness of uptake plates

*3/8"*

Thickness of water tubes

*3/8"*

The foregoing is a correct description,

THOMAS SUDRON &amp; CO LIMITED,

Manufacturer.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits

*1905 May 9. 12. 14. 25. Sept. 28*

Is the approved plan of main boiler forwarded herewith

"

"

"

donkey

"

"

"

"

"

"

Lloyd's Register Foundation

W 787-0067



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

This boiler has been constructed under special survey the materials and workmanship are good & efficient & when tested with hydraulic pressure was found tight and satisfactory. It has been sent to Goble to be fitted on board the vessel.

This donkey boiler has now been fitted and secured on board in accordance with the Rules.

Certificate (if required) to be sent to

|                                |   |   |    |                   |
|--------------------------------|---|---|----|-------------------|
| The amount of Entry Fee...     | £ | : | :  | When applied for, |
| Special ... ..                 | £ | : | :  | 9.6 1905          |
| Donkey Boiler Fee ...          | £ | 2 | 20 | When received,    |
| Travelling Expenses (if any) £ | : | : | :  | 21.6 1905         |

*Geo. A. Wilner & Sons*  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

FRI. 15 DEC 1905

Committee's Minute

Assigned



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