

REPORT ON BOILERS.

No. 4346

Port of **MIDDLESBROUGH-ON-TEES.**

Received at London Office

14th Dec 1905

No. in Survey held at **Stockton**

Date, first Survey **28th August**

Last Survey **14th Dec. 1905**

(Number of Visits **16**)

Reg. Book.

on the **Donkey Boiler (No 3541) for D.S. Teespool**

Tons } Gross
 } Net

Master

Built at **Hickton**

By whom built **Napier & Son**

When built **1905**

Engines made at **Hickton**

By whom made **Blain & Co Ltd**

when made **1905**

Boilers made at **Stockton**

By whom made **Riley Bros (Boilermakers) Ltd**

when made **1905**

Registered Horse Power

Owners

Port belonging to

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 plate Working pressure of shell by rules

Size of manhole in shell Size of compensating ring No. and Description of Furnaces in each boiler

Description of longitudinal joint Material Outside diameter Length of plain part top bottom Thickness of plates crown bottom

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

RETAIN

VERTICAL DONKEY BOILER— No. One Description **Meredith's Pat.** Manufacturers of steel **J. Spencer & Sons Ltd**

Made at **Stockton**

By whom made **Riley Bros Ltd**

When made **2-11-05** Where fixed **Waste Hole**

Working pressure **120** tested by hydraulic pressure to **240** No. of Certificate **3546** Fire grate area **30 1/2** Description of safety valves **Spring**

No. of safety valves **2** Area of each **7.07** Pressure to which they are adjusted **120 lbs** If fitted with easing gear **Yes** If steam from main boilers can enter the donkey boiler **No**

Dia. of donkey boiler **7'-6"** Length **15'-0"** Material of shell plates **Steel** Thickness **19"** Range of tensile strength **27/32**

Descrip. of riveting long. seams **Flat riv. lap** Dia. of rivet holes **15/16** Whether punched or drilled **punched** Pitch of rivets **3 3/4"**

Lap of plating **6 1/2"** Per centage of strength of joint Rivets **79** Plates **75** Working pressure of shell by rules **122 lbs** Thickness of shell crown plates **19"**

Radius of do. **3'-9"** No. of Stays to do. **✓** Dia. of stays **✓** Diameter of furnace Top **5'-0"** Bottom **6'-4"** Length of furnace **2'-6 1/2"**

Thickness of furnace plates **3/4"** Description of joint **S.R. Lap.** Working pressure of furnace by rules **128 lbs** Thickness of furnace crown plates **23/32"**

Stayed by **dished 3'-0" rad** Diameter of tubes **3"** Thickness of uptake plates **F. 23/32"** Thickness of stay tubes **5/16"**

The foregoing is a correct description, **J. B. Riley** Manufacturer.

Dates of Survey while building: During progress of work in shops --) During erection on board vessel --) Total No. of visits **16**

1905 Aug 28 Sept 20 Oct 4 12 18 25 24 30 Nov 2 Nov 24 Dec 1 5 8 12 14

Is the approved plan of main boiler forwarded herewith

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

This boiler has been built under special survey
 The materials and workmanship are good and efficient.
 After satisfactorily withstanding the hydraulic test it
 has been despatched for fitting on board.
 After being secured in place & tested under steam it
 was found satisfactory.

Certificate (if required) to be sent to

The amount of Entry Fee...	£	:	:	When applied for,
Special	£	:	:	5. 12 1905
Donkey Boiler Fee ...	£	2	2	When received,
Travelling Expenses (if any) £	:	:	:	7. 12 1905

R.D. Shilston & Geo A. Milner
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

FRI. 29 DEC 1905

Committee's Minute

Assigned



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