

# REPORT ON BOILERS.

No. 4601

Mbu. Hull No. 18284

Port of MIDDLESBROUGH-ON-TEES.

Received at London Office **WED. 29 AUG 1905**

No. in Survey held at Stockton & Date, first Survey May 5. 1905 Last Survey 18<sup>th</sup> Augt 1906  
 Reg. Book. on the Donkey Boiler No 1994 for Se. St. Tees. (Number of Visits. ) Tons } Gross  
 Master Built at By whom built When built  
 Engines made at By whom made when made  
 Boilers made at Stockton By whom made J Sudron & Co 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 Working pressure of shell by plate  
 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 bottom  
 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 horse boiler Manufacturers of steel John Spence & Sons Ltd  
 Made at Stockton By whom made J Sudron & Co Ltd When made 1905 Where fixed in stockhold.  
 Working pressure 100 lb tested by hydraulic pressure to 200 lb No. of Certificate 3446 Fire grate area 14 sq ft Description of safety valves One spring  
 No. of safety valves One Area of each 3-11/16 Pressure to which they are adjusted 100 lb 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'-6" Material of shell plates Steel Thickness 13/16" Range of tensile strength 27-32  
 Descrip. of riveting long. seams L D Riv Dia. of rivet holes 13/16" Whether punched or drilled Drilled Pitch of rivets 2 3/4"  
 Lap of plating 4 1/2" Per centage of strength of joint Rivets 79.2% Plates 70.4% Working pressure of shell by rules 102 lb Thickness of shell crown plates 2 1/32"  
 Radius of do. 3'-9" No. of Stays to do. None Dia. of stays — Diameter of furnace Top 3'-11" Bottom 4'-5" Length of furnace 3'-10"  
 Thickness of furnace plates 17/32" Description of joint L Ring Riv Working pressure of furnace by rules 106 lb Thickness of furnace crown plates 1 1/16"  
 Stayed by Diked 3'-9" Diameter of uptake 13" Thickness of uptake plates 3/8" Thickness of water tubes 3/8"

The foregoing is a correct description.

H. C. Smith Manufacturer. of Donkey Boilers.

1905 May 5-9-11-14

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

Is the approved plan of main boiler forwarded herewith

" donkey "

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W1602-0020

**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 and when tested with hydraulic pressure was found tight and satisfactory.

The boiler has been in the yard since testing 17-5-05 but not in use.

This boiler has been fitted on board, and tested under steam and found satisfactory, and safety valves adjusted to 100 lbs per sq inch

James Barclay

Certificate (if required) to be sent to  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee...	£	:	:	When applied for.
Special ... ..	£	:	:	9.6 1905
Donkey Boiler Fee ...	£	2	: 2 : 0	When received.
Travelling Expenses (if any)£	:	:	:	21.6 1905

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

Committee's Minute

FRI. 31 AUG 1906

Assigned

20 Minute on Hul Rpt.

No 18284



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