

REPORT ON BOILERS.

File No. 12925.
No. 4421

Port of MIDDLESBROUGH-ON-TEES.

Received at London Office TUES. 1 MAY 1906

No. in Survey held at Stockton Date, first Survey 14 Nov 1905 Last Survey 19
 Reg. Book. Group on the Donkey Boilers No 2067 for es. "Beesborough" (Number of Visits) 3801.22
 Master H.W. Hildes Built at Hartlepool By whom built James Hildes Esq Tons 2469.98
 Engines made at Hartlepool By whom made Hickson, Westgate Esq When built 1906
 Boilers made at do By whom made do when made 1906
 Registered Horse Power _____ Owners Hull Steam Shipping Co. (H. Anderson Esq) Port belonging to Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel John Spencer Esq

(Letter for record A) Total Heating Surface of Boilers 820 sq ft Is forced draft fitted No No. and Description of Boilers One cyl multitubular Working Pressure 90 lbs Tested by hydraulic pressure to 180 lbs Date of test 9-2-06
 No. of Certificate 3601 Can each boiler be worked separately — Area of fire grate in each boiler 32 sq ft No. and Description of safety valves to each boiler 2 Spring Area of each valve 5.7 sq in Pressure to which they are adjusted 90 lbs
 Are they fitted with easing gear yes. In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No
 Smallest distance between boilers or uptakes and bunkers or woodwork 18" Dia. of boilers 10-0" Length 10-0"
 Material 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 LS riv long. seams LS riv Diameter of rivet holes in long. seams 15/16 Pitch of rivets 3 1/4
 Lap of plates or width of butt straps 6 1/2 Per centages of strength of longitudinal joint rivets 80.3 Working pressure of shell by rules 91.5 lbs Size of manhole in shell 16 x 12 Size of compensating ring 5 1/2 x 13/16 plate 74.5
 boiler Two plain Material Steel Outside diameter 3-0 Length of plain part top 6-7 Thickness of plates crown 9/16 bottom 8-8
 Description of longitudinal joint Welded No. of strengthening rings — Working pressure of furnace by the rules 90.4 lbs Combustion chamber plates: Material Steel Thickness: Sides 9/16 Back 9/16 Top 9/16 Bottom 21/32 Pitch of stays to ditto: Sides 8 3/8 x 9 1/2 Back 9 x 9 1/2
 Top 9 x 9 1/2 If stays are fitted with nuts or riveted heads Nut heads Working pressure by rules 94.6 lbs Material of stays Iron Diameter at smallest part 1.45 Area supported by each stay 85.5 sq in Working pressure by rules 102 lbs End plates in steam space: Material Steel Thickness 13/16
 Pitch of stays 17 1/2 x 17 1/2 How are stays secured 2 x W Working pressure by rules 102 lbs Material of stays Iron Diameter at smallest part 4.3
 Area supported by each stay 306.2 sq in Working pressure by rules 105 lbs Material of Front plates at bottom Steel Thickness 13/16 Material of Lower back plate Steel Thickness 13/16 Greatest pitch of stays 13 x 9 Working pressure of plate by rules 134 lbs Diameter of tubes 3 1/4
 Pitch of tubes 4 3/4 x 4 3/8 Material of tube plates Steel Thickness: Front 13/16 Back 11/16 Mean pitch of stays 13.7 Pitch across wide water spaces 14 Working pressures by rules 103 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6 1/4 x 1 1/4 Length as per rule 25 1/4 Distance apart 9 Number and pitch of Stays in each One 9 1/2
 Working pressure by rules 90 lbs Superheater or Steam chest; how connected to boiler None 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 _____ Plates _____ 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,
THOMAS SUDRON & CO. LIMITED. Manufacturer. of Donkey Boilers

Dates of Survey while building: During progress of work in shops -- 1905 Nov. 14 Dec. 21 During erection on board vessel --- 1906 Jan'y 20 Feb'y 7-9
 Total No. of visits _____
 Is the approved plan of main boiler forwarded herewith _____
 " " " donkey " " _____

W596-0167



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

This boiler has been made under special survey the materials and workmanship are good & efficient and when tested with hydraulic pressure was found tight and satisfactory.

This boiler has been securely fitted on board the safety valves adjusted under steam to the working pressure.

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	£	:	:	19...
Donkey Boiler Fee ...	£	2	:	2 : 0 When received.
Travelling Expenses (if any) £	:	:	:	19...

Geo. A. Milner & Theo. L. Johnston
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute **FRI. 4 MAY 1906**

Assigned

see Minute on HPL Rpt
no 12925



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Foundation