

REPORT ON BOILERS.

No. 4539

Port of MIDDLESBROUGH-ON-TEES.Received at London Office SAL. APR 24 1906No. in
Reg. Book.Survey held at StocktonDate, first Survey 2nd Feb'y 1906 Last Survey 11th April 1906(Number of Visits 14)Gross 2484
Tons Net 1885on the Donkey Boiler (No 3594) of S/S "Upcombe"Master N. Whitney Built at Stockton By whom built J. Spencer & Sons When built 1906Engines made at Stockton By whom made Polain & Co. Ltd when made 1906Boilers made at Stockton By whom made Polain & Co. Ltd when made 1906Registered Horse Power Owners A. F. Ash Port belonging to LondonMULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. Spencer & Sons Ltd(Letter for record ☒) Total Heating Surface of Boilers ☒ Is forced draft fitted No No. and Description ofBoilers One single ended Working Pressure 90 lb Tested by hydraulic pressure to 180 lb Date of test 9.3.06No. of Certificate 3624 Can each boiler be worked separately ☒ Area of fire grate in each boiler 29.2 sq ft No. and Description ofsafety valves to each boiler Two spring Area of each valve 7.07 sq in Pressure to which they are adjusted 90 lbAre they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler NoSmallest distance between boilers or uptakes and bunkers or woodwork 8" Intt Mean dia. of boilers 10'-6" Length 9'-0"Material of shell plates Steel Thickness 3/32 Range of tensile strength 27/32 Are the shell plates welded or flanged noDescrip. of riveting: cir. seams DR Lap long. seams DR. Butt St Diameter of rivet holes in long. seams 15/16" Pitch of rivets 4"Lap of plates or width of butt straps 9 1/2" Per centages of strength of longitudinal joint rivets 86.9 Working pressure of shell by plate 76.5rules 95.5 lb Size of manhole in shell 16" x 21" Size of compensating ring 9" x 3/4" No. and Description of Furnaces in eachboiler 2 plain Material steel Outside diameter 3'-0" Length of plain part top 5'-9 1/2" Thickness of plates crown 14" bottom 32Description of longitudinal joint welded No. of strengthening rings ☒ Working pressure of furnace by the rules 9 lb Combustion chamberplates: Material Steel Thickness: Sides 15/32 Back 1/2" Top 1/16" Bottom 19/32 Pitch of stays to ditto: Sides 9" x 4" Back 9" x 8 1/2"Top 7" x 4 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 100 lb Material of stays Iron Diameter atsmallest part 1 1/8" Area supported by each stay 63 sq in Working pressure by rules 94 lb End plates in steam space: Material Steel Thickness 13/16" double 5/8"Pitch of stays 16 3/4" x 20 1/2" How are stays secured Double Nuts Working pressure by rules 150 lb Material of stays Steel Diameter at smallest part 2 1/4"Area supported by each stay 344 sq in Working pressure by rules 116 lb Material of Front plates at bottom Steel Thickness 13/16" Material ofLower back plate Steel Thickness 13/16" Greatest pitch of stays 12 x 8 1/2" Working pressure of plate by rules 210 Diameter of tubes 3 1/4"Pitch of tubes 4 5/8" x 4 3/8" Material of tube plates Steel Thickness: Front 13/16" Back 11/16" Mean pitch of stays 10 5/32" Pitch across widewater spaces 13 1/2" Working pressures by rules 138 lb Girders to Chamber tops: Material Steel Depth and thickness ofgirder at centre 4 3/4" x 1 1/4" Length as per rule 2'-0" Distance apart 7 1/2" Number and pitch of Stays in each Two 7"Working pressure by rules 9 lb Superheater or Steam chest: how connected to boiler None Can the superheater be shut off and the boiler workedseparately ☐ 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,

Geo W. P. P. P. Manufacturer.

1906 Feb 2. 14. 21. 22. 27. March 25. 7. 9.

23. April 5. 6. 10. 11.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " Yes

Foundation

W 745-0008

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 fitted and secured on board and tried
under steam*

Certificate (if required) to be sent to

The amount of Entry Fee...	£	:	:	When applied for,
Special	£	:	:	7.4 1906
Donkey Boiler Fee ...	£	2	: 2	When received,
Travelling Expenses (if any) £	:	:	:	14.4 1906

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

Committee's Minute **TUES. 24 APL 1906**

Assigned

*See minute on
attached report*



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