

REPORT ON BOILERS.

Appl. No. 13097.
No. 4782

Port of MIDDLESBROUGH-ON-TEES. Received at London Office MON. 22 OCT 1906

No. in Survey held at Darlington Date, first Survey Sept. 10 Last Survey 19
 Reg. Book. 8 supp on the Donkey Boiler (No 3022) S. J. Veraston (Number of Visits) 2 Gross 1825.36
 Master J. W. Weeks Built at West Hartlepool By whom built Wray & Co Ltd When built 1906 Tons Net 1154.95.
 Engines made at West Hartlepool By whom made Central Engine & Works when made 1906
 Boilers made at Darlington By whom made Blake, Arden and Wagon Co when made 1906
 Registered Horse Power _____ Owners Merchiston S.S. Co. Ltd. W. Scott & Co Port belonging to West Hartlepool

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 _____ 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 _____ Thickness of plates _____
 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 Blake's Patent Manufacturers of steel J. Spencer & Sons Ltd

Made at Darlington By whom made Blake Boiler Wagon & Eng Co. When made 1906 Where fixed at home Working pressure 80 lbs
 tested by hydraulic pressure to 160 lbs Date of test 29-9-06 No. of Certificate 3779 Fire grate area 28 ft² Description of safety valves Spring
 No. of safety valves 2 Area of each 707 sq in Pressure to which they are adjusted 80 lbs If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler No
 Dia. of donkey boiler 7'-6 1/8" Length 15'-0" Material of shell plates Steel Thickness 3/32" Range of tensile strength 27/32 Descrip. of riveting long. seams DR Lap Dia. of rivet holes 15/16" Whether punched or drilled drilled Pitch of rivets 3"
 Lap of plating 4 5/8" Per centage of strength of joint _____ Rivets 83.5 Working pressure of shell by rules 80 lbs Thickness of shell crown plates 15/32"
 Radius of do. 3'-9" No. of Stays to do. ✓ Dia. of stays _____ Diameter of furnace Top 3'-9" Bottom 6'-2" Length of furnace 4'-8 3/4" Comb. chamber _____
 Thickness of furnace plates 5/8" Description of joint SR Lap Working pressure of furnace by rules 88 lbs Thickness of furnace crown _____
 plates Top 4 1/2" Radius of do. 3'-9" Stayed by ✓ Diameter of uptake tubes 2 1/2" Thickness of uptake plates Front 1/16" Back 1"
 Thickness of water tubes _____ Pitch of tubes Vertically 7 1/4" Diagonally 4 1/2"

The foregoing is a correct description, FOR BLAKE BOILER, WAGON & ENGINEERING CO. LIMITED. Manufacturer.

James Blake
MANAGING DIRECTOR.

Dates of Survey while building: During progress of work in shops --- 1906 Sept 10, 14, 24, 25, 29
 During erection on board vessel ---
 Total No. of visits _____

Is the approved plan of main boiler forwarded herewith _____
 " " " donkey " " " " _____
 Lloyd's Register Foundation
 009152-009160-0015

Is a Report also sent on the Hull of the Ship

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.

This boiler has now been efficiently fitted on board

James Jones

Certificate (if required) to be sent to the Registrar of Shipping (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	£	:	:	4.10.1906
Donkey Boiler Fee ...	£	2	: 2	When received,
Travelling Expenses (if any) £	:	:	:	As per ...

TUES. 23 OCT 1906

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

Committee's Minute

Assigned

