

REPORT ON BOILERS

Hpl. No. 13356.
No. 5192

MUR. 17 OCT 1907

Date of writing Report 17 Aug 1907 When handed in at Local Office

Received at London Office

Port of MIDDLESBROUGH-ON-TEES.

No. in Survey held at *Darlington* Date, First Survey *May 27* Last Survey *19*
 Reg. Book. *22* *supp. on the Donkey Boiler (No 108) for the S/S "MARS"* (Number of Visits) *1*
 Master *A. Henderson* Built at *Nest Hartlepool* By whom built *Furness Withy & Co. Ltd* Tons { Gross *3549.78*
 Engines made at *Hartlepool* By whom made *Richardsons Machinery & Co. Ltd* when made *1907* Net *2236.05*
 Boilers made at *Darlington* By whom made *Blake Boiler Wagon & Eng Co Ltd* when made *1907*
 Registered Horse Power *100* Owners *Harris & Liscon Ltd* Port belonging to *London*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel *J. Spencer & Son Ltd*
 (Letter for record *(S)*) Total Heating Surface of Boilers *660 ft²* Is forced draft fitted *No* No. and Description of Boilers *One Cyl. Mult. single ended* Working Pressure *100* Tested by hydraulic pressure to *200* Date of test *16-8-07*
 No. of Certificate *3997* Can each boiler be worked separately *✓* Area of fire grate in each boiler *27 ft²* No. and Description of safety valves to each boiler *Two, Spring loaded* Area of each valve *5.9390"* Pressure to which they are adjusted *104 lbs per sq"*
 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 *Main deck* *Intt* Mean dia. of boilers *9'-6"* Length *9'-0"*
 Material of shell plates *Steel* Thickness *7/8"* Range of tensile strength *28/32* Are the shell plates welded or flanged *No*
 Descrip. of riveting: cir. seams *S.R.L.* long. seams *DR D.B.S.* Diameter of rivet holes in long. seams *13/16"* Pitch of rivets *4 3/8"*
 Lap of plates or width of butt straps *9" x 9/16"* Per centages of strength of longitudinal joint rivets *94.4* Working pressure of shell by rules *110* Size of manhole in shell *12" x 16"* Size of compensating ring *7" x 5/8"* No. and Description of Furnaces in each boiler *2 plain* Material *Steel* Outside diameter *3'-0"* Length of plain part top *5'-6"* Thickness of plates crown *5"* bottom *7'-7 1/2"* bottom *5/8"*
 Description of longitudinal joint *welded* No. of strengthening rings *✓* Working pressure of furnace by the rules *127* Combustion chamber plates: Material *Steel* Thickness: Sides *5/8"* Back *9/16"* Top *5/8"* Bottom *25/32"* Pitch of stays to ditto: Sides *10" x 10 1/2"* Back *9" x 10"*
 Top *9" x 11"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *120* Material of stays *Steel* Area at smallest part *1.5"* Area supported by each stay *90"* Working pressure by rules *133* End plates in steam space: Material *Steel* Thickness *29/32"* Diameter at smallest part *4.3"*
 Pitch of stays *18" x 19 1/4"* How are stays secured *DR & W* Working pressure by rules *105* Material of stays *Steel* Area at smallest part *4.3"*
 Area supported by each stay *315"* Working pressure by rules *136* Material of Front plates at bottom *Steel* Thickness *29/32"* Material of Lower back plate *Steel* Thickness *29/32"* Greatest pitch of stays *12 3/4" x 9"* Working pressure of plate by rules *232* Diameter of tubes *3"*
 Pitch of tubes *4" x 4"* Material of tube plates *Steel* Thickness: Front *29/32"* Back *5/8"* Mean pitch of stays *9 5/8"* Pitch across wide water spaces *12 3/4"* Working pressures by rules *150* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *6" x 1 3/4"* Length as per rule *2'-4"* Distance apart *11"* Number and pitch of Stays in each *2 9"*
 Working pressure by rules *152* 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

FOR BLAKE BOILER, WAGON &
 The foregoing is a correct description,
James Blake Manufacturer.
 MANAGING DIRECTOR.

Dates of Survey { During progress of *1907* *May 24 June 20 27 July 12 14 25 31 Aug 6 7 14 16* Is the approved plan of boiler forwarded herewith *Yes*
 while building { During erection on board vessel - - - }
 Total No. of visits

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. After satisfactorily withstanding the hydraulic test it has been despatched for fitting on board. This boiler has now been efficiently fitted on board.*

Survey Fee ... £ *2 : 2 : 0* When applied for, *Monthly* *24/10/07*
 Travelling Expenses (if any) £ : : When received, *1907*

R. D. Philston *C. J. Hudson*
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRL 18 OCT 1907

Assigned

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Foundation

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