Rpt. 5a.

Hpl. No. 13369
No. 5214

REPORT ON BOILERS.

Received at London Office TUES. 5 NOV 1907

Date of writing Report ..... 19 ..... When handed in at Local Office ..... 19 ..... Port of MIDDLESBROUGH-ON-TEES.

No. in Reg. Book. 64 supp. Survey held at Darlington Date, First Survey 15th May Last Survey ..... 19 ..... (Number of Visits .....)

on the Donkey Boiler (No 109) for the S/S "Calcutta" Tons { Gross 3577.22 / Net 2244.30 }

Master W. W. Chapman Built at West Hartlepool By whom built Furness Withy & Co. Ltd When built 1907

Engines made at Hartlepool By whom made Richardsons Westgarth & Co. Ltd when made 1907

Donkey Boilers made at Darlington By whom made Blake Boiler Wagon & Eng Co when made 1907

Registered Horse Power ..... Owners Nelson, Donkin & Co. Port belonging to London

MULTITUBULAR BOILERS—~~MAIN, AUXILIARY OR~~ DONKEY.—Manufacturers of Steel J. Spencer & Sons Ld (Letter for record S.) Total Heating Surface of Boilers 660 ft² Is forced draft fitted No No. and Description of Boilers One Cyl. Multi Single ended Working Pressure 100 lb Tested by hydraulic pressure to 200 lb Date of test 12-9-07 No. of Certificate 4009 Can each boiler be worked separately ✓ Area of fire grate in each boiler 30 ft² No. and Description of safety valves to each boiler Two Spring loaded Area of each valve 5.94 □" Pressure to which they are adjusted 103 lbs per □" 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 Int. ~~Mean~~ dia. of boilers 9'-6" Length 9'-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 D.R.L. long. seams D.R.D.B.S. Diameter of rivet holes in long. seams 27/32 Pitch of rivets 4 3/8" 1 row / 2 3/16 2 rows ~~Lap of plates on~~ width of butt straps 9" × 9/16 Per centages of strength of longitudinal joint rivets 105 plate 80.6 Working pressure of shell by rules 115 Size of manhole in shell 12" × 16" Size of compensating ring 7" × 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" bottom 7-7½ Thickness of plates crown / 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" × 10½" Back 9" × 10" Top 9" × 11" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 108 Material of stays Steel ~~Diameter~~ Area at smallest part 1½ □" Area supported by each stay 100 □" Working pressure by rules 133 End plates in steam space: Material Steel Thickness 29/32 Pitch of stays 19½" × 18" How are stays secured D.N.W. Working pressure by rules 100 Material of stays Steel ~~Diameter~~ Area at smallest part 4.3 □" Area supported by each stay 342 □" Working pressure by rules 125 Material of Front plates at bottom Steel Thickness 29/32 Material of lower back plate Steel Thickness 29/32" Greatest pitch of stays 12¾" × 9" Working pressure of plate by rules 235 Diameter of tubes 3" Pitch of tubes 4" × 4" Material of tube plates Steel Thickness: Front 29/32" Back 5/8 Mean pitch of stays 10" Pitch across wide water spaces 12¾" Working pressures by rules 140 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6" × 1¾" Length as per rule 2'-2 3/16" Distance apart 11" Number and pitch of Stays in each 2 9" Working pressure by rules 126 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 .....

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

Dates of Survey while building { During progress of work in shops - - } 1907 May 15.24 June 6.20.26 July 12.18.25 Aug 6.14.15.16.24 Sep 2.6.10.12 { During erection on board vessel - - - }

Is the approved plan of boiler forwarded herewith yes.

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 and efficient. This boiler has now been efficiently fitted on board.

Survey Fee ... ... £ 2 : 2 :
Travelling Expenses (if any)) £ : :

Monthly a/c

When applied for, ... 19 .....
When received, 24/10/07 19 .....

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

Committee's Minute FRI. 8 NOV 1907

Assigned

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