

REPORT ON BOILERS.

No. 59872

THUR. 30 MAR 1911

MUN. 6 MAR 1911

Date of writing Report *1st March 1911* When handed in at Local Office *1st March 1911* Port of *Newcastle on Tyne*
 No. in Survey held at *S Shields* Date, First Survey *26 Aug. 1910* Last Survey *19*
 Reg. Book. *Boiler for Smith Dock Co Ltd No 463.* (Number of Visits) Gross Tons }
 Net Tons }
 Master *S Shields* Built at *Widalebrook* By whom built *Smith Dock Co Ltd* When built *1911*
 Engines made at *S Shields* By whom made *Shields Engineering Co Ltd* when made *1911*
 Boilers made at *S Shields* By whom made *Jos. J. Eltringham & Co (Bros 1680)* when made *1910*
 Registered Horse Power Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~—Manufacturers of Steel *John Spencer & Son Ltd*(Letter for record *8*) Total Heating Surface of Boilers *1620 sq ft* Is forced draft fitted *No* No. and Description ofBoilers *One, Single Ended* Working Pressure *180 lb* Tested by hydraulic pressure to *360 lb* Date of test *17/10/10*No. of Certificate *8047* Can each boiler be worked separately *✓* Area of fire grate in each boiler *51 sq ft* No. and Description ofsafety 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 *✓* *Inside* dia. of boilers *13-6"* Length *11-6"*Material of shell plates *Steel* Thickness *1 3/32"* Range of tensile strength *29/32 tons* Are the shell plates welded or flanged *No*Descrip. of riveting: cir. seams *2 R Lap* long. seams *4 R Butt* Diameter of rivet holes in long. seams *1 1/4"* Pitch of rivets *7 3/4"*Lap of plates or width of butt straps *17 1/2"* Per centages of strength of longitudinal joint rivets *86.1* Working pressure of shell by rules *83.8*Size of manhole in shell *16" x 12"* Size of compensating ring *7 1/2" x 1 3/32"* No. and Description of Furnaces in each boiler *Three, plain*Material *Steel* Outside diameter *40"* Length of plain part *84"* Thickness of plates crown *49/64"* bottom *122"*Description of longitudinal joint *Butt straps* No. of strengthening rings *one* Working pressure of furnace by the rules *182* Combustion chamberplates: Material *Steel* Thickness: Sides *2 1/32"* Back *1/16"* Top *2 1/32"* Bottom *4 9/64"* Pitch of stays to ditto: Sides *9 x 8 1/2"* Back *9 1/4 x 9 1/4"*Top *9 x 9"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *184* Material of stays *Steel* Diameter at smallest part *2 1/8"*Area supported by each stay *86 sq in* Working pressure by rules *208* End plates in steam space: Material *Steel* Thickness *1 5/32"*Pitch of stays *19 x 18 1/2"* How are stays secured *D. nuts* Working pressure by rules *182* Material of stays *Steel* Diameter at smallest part *6-11"*Area supported by each stay *346 sq in* Working pressure by rules *183* Material of Front plates at bottom *Steel* Thickness *1"* Material ofLower back plate *Steel* Thickness *7/8"* Greatest pitch of stays *14 1/4"* Working pressure of plate by rules *220* Diameter of tubes *3 1/2"*Pitch of tubes *4 3/4"* Material of tube plate *Steel* Thickness: Front *1"* Back *27/32"* Mean pitch of stays *11 7/8"* Pitch across widewater spaces *14 1/2"* Working pressures by rules *197 lb* Girders to Chamber tops: Material *Steel* Depth and thickness ofgirder at centre *10 1/2" x 1 1/2"* Length as per rule *38"* Distance apart *9"* Number and pitch of Stays in each *Three, 9"*Working pressure by rules *184 lb* 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,

Jos. J. Eltringham & Co Manufacturer.

Dates of Survey *1910* During progress of work in shops -- *Aug. 26, Sep. 2, 5, 14, 15, 19, 27, Oct. 3, 17, 20, 21, 24, 31* Is the approved plan of boiler forwarded herewith *Yes. 2 Invoices*
 while building *See machy report* Please return plan for duplicate (initials)
 Total No. of visits *13 +*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under*

special survey the materials & workmanship are of good quality and on completion was tested by hydraulic pressure to 360 lb per sq inch & was found tight & sound at that pressure. It has been fitted on board Smith Dock Co Ltd No 463.

Survey Fee ... *changed on machy report* When applied for. *19*
 Travelling Expenses (if any) £ : : When received. *19*

George Murdoch
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

31 MAR 1911

Assigned



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