

Hull No. 24041

No. 60528

REPORT ON BOILERS.

Received at London Office

SAT. 17 JUN 1911

apt. 5a.

Description of Ship: *South Shields*
Date of writing Report: *15th June 1911*
When handed in at Local Office: *15th June 1911*
Port of: *Newcastle on Tyne*
Date, First Survey: *21st Feb. 1911*
Last Survey: *14th June 1911*
No. in Survey held at: *South Shields*
Reg. Book: *"Xylopia"*
Supp. on the: *By whom built: C. D. Holmes & Co. Ltd. when made 1911*
Engines made at: *By whom made: Jos. I. Eltingham & Co. Ltd. when made 1911*
Boilers made at: *By whom made: Jos. I. Eltingham & Co. Ltd. when made 1911*
Registered Horse Power: *Port belonging to: J. Spencer & Son Ltd.*

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~.—Manufacturers of Steel: *J. Spencer & Son Ltd.*

Letter for record: *5* Total Heating Surface of Boilers: *1384 sq ft* Is forced draft fitted: *No.*
Boilers: *One, Single Ended* Working Pressure: *180 lb* Tested by hydraulic pressure to: *360 lb* Date of test: *31/5/11*

No. of Certificate: *8149* Can each boiler be worked separately: *✓* Area of fire grate in each boiler: *✓*
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: *✓* Inside diam. of boilers: *12'-9"* Length: *10'-3"*

Material of shell plates: *Steel* Thickness: *1 1/32"* Range of tensile strength: *29/33* Are the shell plates welded or flanged: *No*
Descrip. of riveting: cir. seams: *2. R Lap* long. seams: *5 Butts Butt* Diameter of rivet holes in long. seams: *1 1/8"* Pitch of rivets: *8"*

Top of plates or width of butt straps: *15 3/4"* Per centages of strength of longitudinal joint: *89.6* Working pressure of shell by rules: *185 lb* Size of manhole in shell: *16" x 12"* Size of compensating ring: *7 1/2" x 1 1/32"* No. and Description of Furnaces in each boiler: *3, Plain* Material: *Steel* Outside diameter: *39"* Length of plain part: *106"* Thickness of plates: *1 1/32"*

Description of longitudinal joint: *Welded* No. of strengthening rings: *None* Working pressure of furnace by the rules: *180 lb* Combustion chamber plates: Material: *Steel* Thickness: Sides: *2 1/32"* Back: *2 1/32"* Top: *2 1/32"* Bottom: *1"* Pitch of stays to ditto: Sides: *10 1/2" x 7 1/4"* Back: *9" x 9"*

Top: *10" x 8"* If stays are fitted with nuts or riveted heads: *Nuts* Working pressure by rules: *180* Material of stays: *Iron* Diameter at smallest part: *2.66"* Area supported by each stay: *51 sq in* Working pressure by rules: *183* End plates in steam space: Material: *Steel* Thickness: *1 1/32"*

Pitch of stays: *18 x 17 1/4"* How are stays secured: *Druts* Working pressure by rules: *182* Material of stays: *Steel* Diameter at smallest part: *5.56"* Area supported by each stay: *310 sq in* Working pressure by rules: *186* Material of Front plates at bottom: *Steel* Thickness: *1"* Material of

Lower back plate: *Steel* Thickness: *7/8"* Greatest pitch of stays: *14 1/2"* Working pressure of plate by rules: *181* Diameter of tubes: *3 1/4"* Pitch of tubes: *4 1/2"* Material of tube plates: *Steel* Thickness: Front: *1 9/16"* Back: *1 3/16"* Mean pitch of stays: *11 1/4"* Pitch across wide

water spaces: *14 1/4"* Working pressures by rules: *193 lb* Girders to Chamber tops: Material: *Steel* Depth and thickness of girder at centre: *9 1/4" x 1 3/4"* Length as per rule: *34 1/2"* Distance apart: *10* Number and pitch of Stays in each: *Three, 8"*

Working pressure by rules: *181 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,

B. J. Whigham Manufacturer.

Dates of Survey: *1911 Feb. 21, 25, 27, 28, Mar. 13, 16, Apr. 18, 26, May 16, 24, 29, 31* Is the approved plan of boiler forwarded herewith: *Yes & Invoices with report 60527 of Boiler 11590*
During progress of work in shops: *✓*
During erection on board vessel: *✓*
Total No. of visits: *16 +*

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 pounds per sq. in. and was found tight & sound at that pressure. It was built to the order of Messrs C. D. Holmes & Co. Hull & is to be forwarded to that port.*

Survey Fee: *£ 4 : 12 : -* When applied for: *JUN 16 1911*
Travelling Expenses (if any): *£ :* When received: *11/7/19*

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

WED. AUG. 9-1911

Committee's Minute

Assigned: *see minute on Hull. Rpt 24041*