

REPORT ON BOILERS.

No. 66085

Date of writing Report *14th May 1914* When handed in at Local Office *15th May 1914* Port of *Newcastle on Tyne*
 No. in Survey held at *Newcastle* Date, First Survey *17th Oct. 1913* Last Survey *6th May 1914*
 Reg. Book. *138* the *Donkey Boiler of S.S. Springwell* (Number of Visits) Gross *5593* Tons Net *3552*
 Master Built at *Newcastle* By whom built *Wood & Skinner & Co.* When built *1914*
 Engines made at *Newcastle* By whom made *N.E. Marine Eng. Co.* When made *1914*
 Boilers made at *"* By whom made *"* When made *1914*
 Registered Horse Power Owners *Well Line Co.* Port belonging to *Newcastle*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel

(Letter for record *S*) Total Heating Surface of Boilers *942.5* Is forced draft fitted *no* No. and Description of Boilers *1 Single-ended* Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *4/3/14*
 No. of Certificate *8624* Can each boiler be worked separately *✓* Area of fire grate in each boiler *29.5* No. and Description of safety valves to each boiler *2 direct spring* Area of each valve *3.97* Pressure to which they are adjusted *180 lbs*
 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 *on deck* Mean dia. of boilers *10'-4 1/4"* Length *10'-0"*
 Material of shell plates *Steel* Thickness *7/8"* Range of tensile strength *28 1/2-32 tons* Are the shell plates welded or flanged *no*
 Descrip. of riveting: cir. seams *d. r. lap* long. seams *E. r. d. butt* Diameter of rivet holes in long. seams *1 1/4"* Pitch of rivets *7 3/8"*
 Lap of plates or width of butt straps *13 1/2"* Per centages of strength of longitudinal joint rivets *84.85* Working pressure of shell by rules *181 lbs* Size of manhole in shell *16" x 12"* Size of compensating ring *flanged* No. and Description of Furnaces in each boiler *2 plain* Material *Steel* Outside diameter *36"* Length of plain part *73"* Thickness of plates crown *2 3/32"* bottom *80 1/2"*
 Description of longitudinal joint *welded* No. of strengthening rings *✓* Working pressure of furnace by the rules *182 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *2 3/32"* Back *2 3/32"* Top *2 3/32"* Bottom *7/8"* Pitch of stays to ditto: Sides *10 1/2" x 9 3/8"* Back *8 1/4" x 7 3/4"*
 Top *10 1/2" x 9 3/8"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *80.5 lbs* Material of stays *Steel* Diameter at smallest part *2.03* Area supported by each stay *98* Working pressure by rules *185 lbs* End plates in steam space: Material *Steel* Thickness *1 3/16"*
 Pitch of stays *22 1/2" x 15 1/2"* How are stays secured *d. n. m.* Working pressure by rules *84.5 lbs* Material of stays *Steel* Diameter at smallest part *5.93*
 Area supported by each stay *349* Working pressure by rules *80.5 lbs* Material of Front plates at bottom *Steel* Thickness *1"* Material of Lower back plate *Steel* Thickness *1"* Greatest pitch of stays *14 1/2" x 9 3/8"* Working pressure of plate by rules *90 lbs* Diameter of tubes *3 1/4"*
 Pitch of tubes *4 1/2" x 4 3/8"* Material of tube plates *Steel* Thickness: Front *1"* Back *1 3/16"* Mean pitch of stays *9" x 8 3/4"* Pitch across wide water spaces *14 1/2"* Working pressures by rules *182 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *8" x 1 3/4"* Length as per rule *27"* Distance apart *10 1/2"* Number and pitch of Stays in each *2 of 9 3/8"*
 Working pressure by rules *194 lbs* Superheater or Steam chest: how connected to boiler *now* 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,
 NORTH EASTERN MARINE ENGINEERING CO., LTD.

Manufacturer.

Dates of Survey } During progress of }
 while } work in shops - - }
 building } During erection on }
 board vessel - - - } See Weekly Report

Is the approved plan of boiler forwarded herewith *Secretary*

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 used are good, and the workmanship is satisfactory.

Survey Fee ... £ *2.2* When applied for. *See Weekly Report*
 Travelling Expenses (if any) £ : : When received, *191*

Charles Cooper
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

FRI. MAY. 22. 1914

Committee's Minute

Assigned

See minute on file attached

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Lloyd's Register
W756-0082
Foundation