

REPORT ON BOILERS.

No. 61924
WED. MAR. 13. 1912

Received at London Office

Date of writing Report *21st Feb 1912* When handed in at Local Office *21st Feb 1912* Port of *Newcastle on Tyne*
 No. in Survey held at *South Shields* Date, First Survey *14th Dec 1911* Last Survey *5th March 1912*
 Reg. Book. *112* on the *Tug "Central. No 2."* (Number of Visits) Gross *137* Tons Net *-*
 Master *S Shields* Built at *S Shields* By whom built *J. S. Eltringham & Co* When built *1912*
 Engines made at *S Shields* By whom made *Baird Bros* When made *1912*
 Boilers made at *S Shields* By whom made *J. S. Eltringham & Co* When made *1912*
 Registered Horse Power *1739* Owners *Great Central Railway* Port belonging to *Grimsby*

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

(Letter for record *S*) Total Heating Surface of Boilers *1746 sq ft* Is forced draft fitted *No* No. and Description of Boilers *One, Single Ended* Working Pressure *150 lb* Tested by hydraulic pressure to *300 lb* Date of test *3/2/12*
 No. of Certificate *8269* Can each boiler be worked separately ☒ Area of fire grate in each boiler *50 sq ft* No. and Description of safety valves to each boiler *Two, spring loaded* Area of each valve *5.94 sq in* Pressure to which they are adjusted *155 lbs*
 Are they fitted with easing gear *Yes* 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 *1'-7" Inside* Mean dia. of boilers *14'-0"* Length *10'-3"*
 Material of shell plates *Steel* Thickness *3/32"* Range of tensile strength *29/33 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 *1/16"* Pitch of rivets *6 1/4"*
 Gap of plates on width of butt straps *14 7/8"* Per centages of strength of longitudinal joint rivets *87* Working pressure of shell by rules *152 lb* Size of manhole in shell *16" x 12"* Size of compensating ring *7 1/2" x 3/32"* No. and Description of Furnaces in each boiler *3. Morrison's* Material *Steel* Outside diameter *44 1/2"* Length of plain part *7'-0"* Thickness of plates crown *15/32"* bottom *15/32"*
 Description of longitudinal joint *Welded* No. of strengthening rings *1* Working pressure of furnace by the rules *155* Combustion chamber plates: Material *Steel* Thickness: Sides *19/32"* Back *19/32"* Top *19/32"* Bottom *11/16"* Pitch of stays to ditto: Sides *8 1/2" x 9 1/4"* Back *8 1/2" x 9 1/4"*
 Top *9" x 9"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *150* Material of stay *Steel* Diameter at smallest part *5/16"* Area supported by each stay *81 sq in* Working pressure by rules *156* End plates in steam space: Material *Steel* Thickness *1 3/32"*
 Pitch of stays *19 1/4"* How are stays secured *Nuts* Working pressure by rules *163* Material of stays *Steel* Diameter at smallest part *5/16"*
 Area supported by each stay *347 sq in* Working pressure by rules *151* Material of Front plates at bottom *Steel* Thickness *29/32"* Material of Lower back plate *Steel* Thickness *7/8"* Greatest pitch of stays *15 1/2" x 9 1/4"* Working pressure of plate by rules *162* Diameter of tubes *3 1/4"*
 Pitch of tubes *4 1/2"* Material of tube plates *Steel* Thickness: Front *29/32"* Back *3/4"* Mean pitch of stays *11 1/4"* Pitch across wide water spaces *15 1/4"* Working pressures by rules *154 lb* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *7" x 15/8"* Length as per rule *30"* Distance apart *9"* Number and pitch of Stays in each *Two, 9"*
 Working pressure by rules *155 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.

For J. S. Eltringham & Co.

Manufacturer.

Dates of Survey *1911* During progress of work in shops *Dec. 14, 15, 18, 25* *1912* Jan. 10, 15, 19, 24, 26 Feb. 3, 21. Is the approved plan of boiler forwarded herewith *Yes*
 while building *See Machinery Report* Total No. of visits *12+*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under special survey. The materials and workmanship are of good quality and on completion was tested by hydraulic pressure to 300 pounds per square inch & found tight & sound at that pressure. It is now fitted on board Tug "Central No 2". This boiler has now been efficiently secured on board.*

Survey Fee *£* When applied for, *191*
 Travelling Expenses (if any) *£* When received, *191*

FRI. MAR. 15. 1912

Committee's Minute

Assigned

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

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Foundation