

REPORT ON BOILERS.

No. 6199
THUR. 14 APR 1910
WFS. 10 MAY 1910

Date of writing Report 10 When handed in at Local Office *shape* 10 Port of *Middlesbrough*
 No. in Survey held at *Stockton-on-Tees* Date, First Survey *10th Jan'y.* Last Survey *at the Teby. 19 10*
 Reg. Book. *GCR-A* (Number of Visits) *(90-199)* Tons } Gross *119*
 55 *hull* on the *GCR-A* Net *67*
 Master Built at *Hull* By whom built *Mr. H. Scarr* When built *1910*
 Engines made at *Stockton* By whom made *Mr. F. J. Harker* when made *1910*
 Boilers made at *Stockton* By whom made *Messrs Riley Bros Ltd (Blr No 4104)* when made *1910*
 Registered Horse Power Owners *Great Central Railway* Port belonging to *Grimsby*

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~.—Manufacturers of Steel *Messrs J. Spencer & Sons*
 (Letter for record *(a)*) Total Heating Surface of Boilers *320 sq ft* Is forced draft fitted *no* No. and Description of Boilers *One single ended* Working Pressure *120* Tested by hydraulic pressure to *240* Date of test *24.2.10*
 No. of Certificate *4380* Can each boiler be worked separately *yes* Area of fire grate in each boiler *10.3 sq ft* No. and Description of safety valves to each boiler *2 direct spring* Area of each valve *3.14* Pressure to which they are adjusted *125 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 *4"* *Inside* Mean dia. of boilers *7'-2"* Length *7'-0"*
 Material of shell plates *Steel* Thickness *1/2"* Range of tensile strength *28-32* Are the shell plates welded or flanged *no*
 Descrip. of riveting: cir. seams *2 Riv lap* long. seams *2B-3 Riv* Diameter of rivet holes in long. seams *1 3/16* Pitch of rivets *4 3/4"*
~~lap of plates~~ width of butt straps *12" x 1/2"* Per centages of strength of longitudinal joint rivets *97.5* Working pressure of shell by rules *127* Size of manhole in shell *16" x 12"* Size of compensating ring *Mr. Reilly's* No. and Description of Furnaces in each boiler *One plain* Material *steel* Outside diameter *34"* Length of plain part top *58"* Thickness of plates crown *1/2"* bottom *1/2"*
 Description of longitudinal joint *welded* No. of strengthening rings *none* Working pressure of furnace by the rules *113* Combustion chamber plates: Material *steel* Thickness: Sides *1/2"* Back *1/2"* Top *1 1/2"* Bottom *1/2"* Pitch of stays to ditto: Sides *8"* Back *8" x 7 1/2"*
 Top *10 1/2"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *120* Material of stays *IRON* Diameter at smallest part *1 3/8* Area supported by each stay *68.4* Working pressure by rules *130* End plates in steam space: Material *steel* Thickness *3/4"*
 Pitch of stays *15 x 14* How are stays secured *nuts & some washers* Working pressure by rules *122* Material of stays *IRON* Diameter at smallest part *2"*
 Area supported by each stay *189* Working pressure by rules *124* Material of Front plates at bottom *steel* Thickness *3/4"* Material of Lower back plate *steel* Thickness *3/4"* Greatest pitch of stays *8" x 7 1/2"* Working pressure of plate by rules *300* Diameter of tubes *3"*
 Pitch of tubes *3 3/4" x 3 3/4"* Material of tube plates *steel* Thickness: Front *3/4"* Back *5/8"* Mean pitch of stays *9 3/4"* Pitch across wide water spaces *13 1/2"* Working pressures by rules *139 lbs* Girders to Chamber tops: Material *steel* Depth and thickness of girder at centre *5 1/2" x 1 1/2"* Length as per rule *18* Distance apart *10 1/2"* Number and pitch of Stays in each *one*
 Working pressure by rules *157* 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

FOR The foregoing is a correct description,
 RILEY BROS. (BOILERMAKERS) LIMITED. Manufacturer.

Dates of Survey } During progress of work in shops - - } 1910. Jan'y. 10. 12. 13. 19. 25. 28. Feb'y. 4. 7. 9. 11. 24.
 } while building } During erection on board vessel - - - }
 Is the approved plan of boiler forwarded herewith *yes*
 Total No. of visits *12*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under Special Survey in accordance with the approved plan the Secretary's letter E-15-12-09 and in general conformity with the Rules. The materials and workmanship are sound and good, and on completion the boiler was tested by hydraulic pressure with satisfactory results. The boiler is to be fitted on board at Hull.*

Survey Fee £ *2-2-0* When applied for *22. 3. 19 10*
 Travelling Expenses (if any) £ : : When received *23. 4. 19 10*

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

Committee's Minute

FRI. 13 MAY 1910

Assigned

