

5a.

REPORT ON BOILERS.

No. 79652.

(Boilers Nos. 2002A + 2002B)

Received at London Office

Writing Report

- 6 OCT 1919

When handed in at Local Office

- 6 OCT 1919

Port of *Liverpool*in Survey held at *Birkenhead*Date, First Survey *Dec 30*Last Survey *Sept 20*

1919

Book.

(Number of Visits *67*)Gross *2437*Tons Net *1509*on the *Boilers for ss "Colon"*Built at *Erston*By whom built *H. & C. Grayson, Ltd.*When built *1919*es made at *Liverpool*By whom made *David Rolfe & Sons*When made *1919*s made at *Birkenhead*By whom made *Cammell, Laird & Co. Ltd.*When made *1919*

ered Horse Power

Owners *MacAndrews & Co. Ltd.*Port belonging to *London*MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~—Manufacturers of Steel *John Hume & Sons, Ltd., Palmers S. & S. Co. Ltd., S. Colville & Sons, Ltd.*for record *5*) Total Heating Surface of Boilers *5112 sq. ft.* Is forced draft fitted *No.* No. and Description of*Two - Cylindrical Multitubular* Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *10-4-19*Certificates *2064, 2065* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *69 sq. ft.* No. and Description ofvalves to each boiler *Two - Spring loaded* Area of each valve *9.62 sq. in.* Pressure to which they are adjusted *185 lbs per sq. in.**11, 12, 13* Key fitted with easing gear *Yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *Yes**Key 7.1* Distance between boilers or uptakes and bunkers or woodwork *4' 6"* Inside *Mason* dia. of boilers *15 ft 6 ins* Length *11 ft 6 ins*Material of shell plates *Steel* Thickness *1/4"* Range of tensile strength *28/32 tons* Are the shell plates welded or flanged *No.*Type of riveting: cir. seams *DR. Lap* long. seams *T.R. double butt straps* Diameter of rivet holes in long. seams *1 5/8"* Pitch of rivets *9"**21/3/19* plates or width of butt straps *19 1/2"* Per centages of strength of longitudinal joint rivets *88.3* Working pressure of shell by*19/1/19* *182 lbs* Size of manhole in *shell* *16" x 12"* Size of compensating ring *fished* No. and Description of Furnaces in each*20/8/19* *3 - corrugated* Material *Steel* Outside diameter *4' 2 3/4"* Length of plain part *top* Thickness of plates *bottom* *19 3/32"**19* Type of longitudinal joint *Weld* No. of strengthening rings *Working pressure of furnace by the rules 188 lbs* Combustion chamber*19* Material *Steel* Thickness: Sides *2 3/32"* Back *1 1/8"* Top *2 3/32"* Bottom *2 3/32"* Pitch of stays to ditto: Sides *10 5/8" x 9 1/4"* Back *10 1/2" x 8 1/4"**4" x 9 1/4"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *180.5 lbs* Material of stays *Steel* Diameter atDo. *42* part *236 sq. in.* Area supported by each stay *98.28 sq. in.* Working pressure by rules *216 lbs* End plates in steam space: Material *Steel* Thickness *1 1/32"*Do. *42* of stays *2 1/4" x 20 1/2"* How are stays secured *double nuts* Working pressure by rules *81 lbs* Material of stays *Steel* Diameter at smallest part *8.29 sq. in.*supported by each stay *44.58 sq. in.* Working pressure by rules *93 lbs* Material of Front plates at bottom *Steel* Thickness *3 1/32"* Material ofback plate *Steel* Thickness *2 3/32"* Greatest pitch of stays *13 5/8" x 8 1/4"* Working pressure of plate by rules *187 lbs* Diameter of tubes *2 1/2" ext.*of tubes *4" x 3 3/8"* Material of tube plates *Steel* Thickness: Front *3 1/32"* Back *2 1/4"* Mean pitch of stays *9 3/8"* Pitch across widespaces *13 5/8"* Working pressures by rules *181 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness ofat centre *2' 10" x 7"* Length as per rule *35.56"* Distance apart *10 5/8"* Number and pitch of Stays in each *3 - 9 1/4"*Working pressure by rules *188 lbs* Superheater or Steam chest: how connected to boiler *Can the superheater be shut off and the boiler worked*Diameter *Length* Thickness of shell plates *Material* Description of longitudinal joint *Diam. of rivet*Pitch of rivets *Working pressure of shell by rules* Diameter of flue *Material of flue plates* Thicknesslined with rings *Distance between rings* Working pressure by rules *End plates: Thickness* How stayedWorking pressure of end plates *Area of safety valves to superheater* Are they fitted with easing gearThe foregoing is a correct description,
CAMMELL LAIRD & COMPANY LIMITED.

Manufacturer.

During progress of *Dec. 30, Jan 6, 7, 14, 16, 17, 20, 29 Feb 4, 8, 18, 21, 24,* Is the approved plan of boiler forwarded *Director* *Yes (copy)*

work in shops - *25, 27 Mar 3, 10, 12, 18, 19, 21, 26, Apr 12, 14, 24, 25, 29.*

During erection on *May 6, 9, 12, 16, 21, 23, 27, 28, 30, Jun 2, 3, 4, 6, 7, 12, 20* Total No. of visits *67*

board vessel - *26, 30, July 1, 3, 10, 14, 28, 29 Aug 7, 8, 9, 11, 12, 13, 15, 18, 20, 27 Sept 11, 19, 20, 25.*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been constructed under*

Survey in accordance with the approved plan and the Secretary's letter (E) of 23rd May 1918

materials and workmanship are of good quality. When tested by water to twice the

working pressure the boilers were found tight and satisfactory in every respect.

Survey Fee (*1/3* of *2.8* fee) *£ 11 : 4 : 0*

Travelling Expenses (if any) *£*

When applied for, *7 OCT 1919*

When received, *4.12. 1919*

H. G. Oxford & John Dykes

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

Committee's Minute *LIVERPOOL - 7 OCT 1919*

See Machinery report attached

Lloyd's Register
Foundation