

REPORT ON BOILERS.

No. 34369
FRI. DEC. 28 1917.

Received at London Office

Date of writing Report *20 Dec 1917* When handed in at Local Office *Glasgow* Port of *Glasgow*
 No. in Survey held at *Glasgow* Date, First Survey *15th May, 1917* Last Survey *17th Dec 1917*
 Reg. Book. *1649/50* (Number of Visits *28*)
 on the *Marric* Boilers designed to *1649/50* for *Messrs Dumb & Brunner's No 327 Vessel* Tons } Gross
 Net
 Master Built at By whom built When built
 Engines made at By whom made When made
 Boilers made at *Glasgow* By whom made *Lindsay Burnet & Co* When made *1917*
 Registered Horse Power Owners Port belonging to

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

(Letter for record *S*) Total Heating Surface of Boilers *1890 Sq. Ft.* Is forced draft fitted *Yes* No. and Description of Boilers *Two Single Ended* Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *17-12-17*

No. of Certificate *14027* Can each boiler be worked separately Area of fire grate in each boiler *40 fitted* No. and Description of 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 *Int* dia. of boilers *9'-6"* Length *11'-0"*

Material of shell plates *Steel* Thickness *7/8* Range of tensile strength *28/32* Are the shell plates welded or flanged *No*

Descrip. of riveting: cir. seams *D.R. Lap.* long. seams *Trip Riv Bulbs* Diameter of rivet holes in long. seams *7/16* Pitch of rivets *6 3/4*

Lap of plates or width of butt straps *1'-2"* Per centages of strength of longitudinal joint rivets *87* Working pressure of shell by rules *199 lbs* Size of manhole in shell *16" x 12"* Size of compensating ring *2'3" x 2'-7" x 2 1/2"* No. and Description of Furnaces in each boiler *Two Corrugated* Material *Steel* Outside diameter *3'-1 1/2"* Length of plain part *3'-1 1/2"* Thickness of plates *17/32* *17*

Description of longitudinal joint *Weld.* No. of strengthening rings *None* Working pressure of furnace by the rules *220 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *3/32* Back *5/8* Top *3/32* Bottom *3/32* Pitch of stays to ditto: Sides *8" x 9"* Back *9" x 8"*

Top *Girders* stays are fitted with nuts or riveted heads *Weld.* Working pressure by rules *185 lbs* Material of stays *Steel* Diameter at smallest part *1 1/2"* Area supported by each stay *132 sq. ins* Working pressure by rules *189 lbs* End plates in steam space: Material *Steel* Thickness *3/32*

Pitch of stays *13 1/2" x 17"* How are stays secured *Welded* Working pressure by rules *204 lbs* Material of stays *Steel* Diameter at smallest part *5/8"* Area supported by each stay *229 sq. ins* Working pressure by rules *228 lbs* Material of Front plates at bottom *Steel* Thickness *3/32* Material of Lower back plate *Steel* Thickness *3/32* Greatest pitch of stays *10 1/2" x 8 1/8"* Working pressure of plate by rules *240 lbs* Diameter of tubes *2 1/2"*

Pitch of tubes *3 5/8"* Material of tube plates *Steel* Thickness: Front *3/32* Back *5/16* Mean pitch of stays *95 ms* Pitch across wide water spaces *13 1/2"* Working pressures by rules *184 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *9 x 3/4 x 2* Length as per rule *31.25 ms* Distance apart *9 ft* Number and pitch of Stays in each *3 at 8"*

Working pressure by rules *193 lbs* Superheater or Steam chest: how connected to boiler 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

Survey request form No. *1991* attached

The foregoing is a correct description,
Lindsay Burnet & Co Manufacturer.

Dates of Survey During progress of work in shops *May 15, 21, 28, June 4, 25, July 9, 24, Aug. 2, 22, Sep. 6, 19, 26, Oct. 11* Is the approved plan of boiler forwarded herewith *Yes*

while building During erection on board vessel *May 16, 23, 29, Jun. 5, 12, 19, Dec. 5, 13, 17* Total No. of visits *28*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been built under special survey in accordance with the approved plan. The workmanship and material is good, and the boilers in my opinion are suitable for the working pressure of 180 lbs. per square inch. The boilers are to the order of Messrs Dumb & Brunner Co.*

Survey Fee *Charged with machinery* When applied for *1st May, 1917* Travelling Expenses (if any) *14. 13. 3d* When received *26/9/18* *29/10/18*

Peter W. Chigor.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW* 27 DEC. 1917 ERI.-8 NOV. 1918

Assigned TRANSMIT TO LONDON

