

REPORT ON BOILERS.

No. 25933

Received at London Office TUE. DEC. 9 - 1913

Date of writing Report 2-12-1913 When handed in at Local Office 3-12-1913 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 15 April Last Survey 1-12-1913
 Reg. Book. (Number of Visits 10) Gross 7486 Net 4668
 on the Donkey Boiler for S/S "ANGLO BRAZILIAN"
 Master Richardson Built at Sunderland By whom built Shor. Bros Ltd (No 381) When built 1913
 Engines made at Newcastle By whom made North Eastern Marine Engineering Co Ltd When made 1913
 Boilers made at Sunderland By whom made Mackell & Pollock Ltd (No 631) When made 1913
 Registered Horse Power _____ Owners Nitrate Producers S.S. Co Ltd Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. & S. James & Sons Ltd & Co of Scotland.

(Letter for record (S)) Total Heating Surface of Boilers 1129 Is forced draft fitted _____ No. and Description of Boilers one single ended marine Working Pressure 120 Tested by hydraulic pressure to 240 Date of test 31-7-13
 No. of Certificate 3133 Can each boiler be worked separately _____ Area of fire grate in each boiler 36 No. and Description of safety valves to each boiler two direct spring Area of each valve 5.940 Pressure to which they are adjusted 123
 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 13" dia. of boilers 12'-0" Length 10'-1 1/2"
 Material of shell plates steel Thickness 23/32 Range of tensile strength 28 1/2 - 32 Are the shell plates welded or flanged no
 Descrip. of riveting: cir. seams W.R. long. seams W.B.S., T.R. Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 5 3/16
 Lap of plates or width of butt straps 10" Per centages of strength of longitudinal joint rivets 82.6 plate 82 Working pressure of shell by rules 121 Size of manhole in shell 16" x 12" Size of compensating ring 28" x 26" x 23" No. and Description of Furnaces in each boiler 3 plain Material steel Outside diameter 3'-15 1/16 Length of plain part 75" Thickness of plates crown 21" bottom 32"
 Description of longitudinal joint welded No. of strengthening rings none Working pressure of furnace by the rules 154 Combustion chamber plates: Material steel Thickness: Sides 1 1/16 Back 5/8 Top 1 1/16 Bottom 1 3/16 Pitch of stays to ditto: Sides 7 7/8" x 10" Back 7 1/2" x 9 1/2"
 Top 10" x 10" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 163 Material of stays steel Diameter at smallest part 1.450 Area supported by each stay 970 Working pressure by rules 120 End plates in steam space: Material steel Thickness 1 5/16
 Pitch of stays 1 1/2" x 1 1/8" How are stays secured W.N. Working pressure by rules 125 Material of stays steel Diameter at smallest part 4 1/10
 Area supported by each stay 3150 Working pressure by rules 135 Material of Front plates at bottom steel Thickness 7/8 Material of Lower back plate steel Thickness 7/8 Greatest pitch of stays 12 3/4" x 9 1/2" Working pressure of plate by rules 208 Diameter of tubes 3"
 Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates steel Thickness: Front 7/8 Back 1 1/16 Mean pitch of stays 10 5/8 Pitch across wide water spaces 13 1/4 Working pressures by rules 150 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 2 @ 6 1/8" x 13" Length as per rule 32" Distance apart 10" Number and pitch of Stays in each 2 @ 10"
 Working pressure by rules 120 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,
Mackell & Pollock Ltd. Manufacturer.
M. Pollock

Dates of Survey: During progress of work in shops - - - Apr. 15, May 22, Jul 7, 26, 28, 31. Is the approved plan of boiler correct yes
 while building: During erection on board vessel - - - Nov. 21, 25, 28 Dec 1 Total No. of visits 10

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The materials and workmanship are good
The boiler has been made under special survey and satisfactorily fitted in the
stowhold of the vessel. safety valves adjusted as above, both adjusting washers - 7/16.

Survey Fee £ 2 : 2 : } When applied for, 8/12/1913
 Travelling Expenses (if any) £ : : } When received, 11/12/1913

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

Committee's Minute FRI. DEC. 12. 1913
 Assigned see minute on dwe Rpt 6-181

