Rpt. 5a.

REPORT ON BOILERS.

No. 41196

Received at London Office WED. 29 JUN. 1921

Date of writing Report 24. 6. 1921 When handed in at Local Office 24. 6. 1921 Port of Glasgow

No. in Reg. Book. Survey held at Glasgow Date, First Survey 24th Sept 1919 Last Survey 13th Feb 1920 (Number of Visits 15)

on the Boilers for McKie & Baxter No 955 S.S. "Garryowen" II Tons Gross 468 Net 194

Master Built at Port Glasgow By whom built G. Brown & Co When built 1921

Engines made at Glasgow By whom made McKie & Baxter 955. When made 1921

Boilers made at Linthouse, Glasgow By whom made A. Stephens & Sons 599. When made 1920

Registered Horse Power Owners Port belonging to Limerick

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~.—Manufacturers of Steel Steel Co of Scotland

(Letter for record S) **Total Heating Surface of Boilers** 2120 □' Is forced draft fitted Yes **No. and Description of Boilers** Two Single ended Multitubular **Working Pressure** 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 13-2-20

No. of Certificate 15098 Can each boiler be worked separately Yes **Area of fire grate in each boiler** 31·12 No. and Description of safety valves to each boiler Two Spring loaded Area of each valve 4·9 □" Pressure to which they are adjusted 185

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 20" ~~Mean~~ INT dia. of boilers 10'-0" Length 11'-0"

Material of shell plates S Thickness 29/32" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams L.D.R. long. seams D. Straps T.R. Diameter of rivet holes in long. seams 1 1/32" Pitch of rivets 6 3/4"

~~Lap of butt straps~~ width of butt straps 16 3/8" Per centages of strength of longitudinal joint rivets 81·4 plate 84·8 Working pressure of shell by rules 186 Size of manhole in shell 16"x12" Size of compensating ring 35"x31"x15/16

No. and Description of Furnaces in each boiler Two Corrugated Material S Outside diameter 38 1/4" Length of plain part top ✓ bottom ✓ Thickness of plates crown / bottom 15/32"

Description of longitudinal joint weld No. of strengthening rings None Working pressure of furnace by the rules 181 Combustion chamber plates: Material S Thickness: Sides 9/16" Back 5/8" Top 9/16" Bottom 13/16" Pitch of stays to ditto: Sides 7 3/4"x7 1/2" Back 8 1/4"x8 1/4"

Top 7 1/2"x7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 192 Material of stays S ~~Diameter~~ Area at smallest part 1·5 □" Area supported by each stay 58·15 Working pressure by rules 206 End plates in steam space: Material S Thickness 15/16"

Pitch of stays 14 1/2"x14" How are stays secured D. nuts Working pressure by rules 194 Material of stays S ~~Diameter~~ at smallest part 4·09

Area supported by each stay 203 □" Working pressure by rules 209 Material of Front plates at bottom S Thickness 15/16" Material of Lower back plate S Thickness 15/16" Greatest pitch of stays 12 1/2"x10" Working pressure of plate by rules 242 Diameter of tubes 2 1/2

Pitch of tubes 3 5/8"x3 1/2" Material of tube plates S Thickness: Front 15/16" Back 21/32" Mean pitch of stays 8 15/16" Pitch across wide water spaces 13" Working pressures by rules 186 Girders to Chamber tops: Material S Depth and thickness of girder at centre 6 1/2"x2" Length as per rule 28 1/4" Distance apart 7 1/2" Number and pitch of Stays in each 3 @ 7 1/2"

Working pressure by rules 204 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 ✓

FOR ALEXANDER STEPHEN & SONS, LIMITED

And for correctness of description,

Jas. W. Hunter Secretary. Manufacturer.

Dates of Survey while building: During progress of work in shops - - 1919 Sep 24 Oct 1. 8. 20 Nov 5. 17 Dec 4. 17. 29 (1920) Jan 13. 21. 30 Feb 4. 16. 13 Is the approved plan of boiler forwarded herewith Yes ✓

During erection on board vessel - - - Total No. of visits 15.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have been built under Special Survey and in accordance with the Rules and approved plan: the materials and workmanship are sound and good. on completion they were tested by water pressure to 360 lbs per square inch and found tight and satisfactory in all respects.

Survey Fee ... ... £ : : When applied for, ... 191.....

Travelling Expenses (if any)) £ : : When received, ... 191.....

J. Sellar

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

Committee's Minute GLASGOW. 28 JUN 1921

Assigned See accompanying report.

TUE DEC. 5 1922

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