

REPORT ON BOILERS

No. 16497

WED. JUL. 2 1913

Received at London Office

Date of writing Report 1913 When handed in at Local Office 27/6/1913 Port of Greenock

No. in Survey held at Greenock. Date, First Survey 4th Dec. 1911 Last Survey 26th June 1913

Reg. Book. on the SCREW STEAMER **UNCAS.** (Number of Visits 101) Gross 4722 Tons Net 2897

Master P. Stewart Built at Greenock By whom built Greenock Grangemouth Dry Dock Co. When built 1913.

Engines made at Greenock By whom made Rankin & Blackmore When made 1913.

Boilers made at Greenock By whom made Rankin & Blackmore. When made 1913.

Registered Horse Power Owners E. H. Storage & Carriage Co. Ltd Port belonging to Greenock.

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

(Letter for record ☒) Total Heating Surface of Boilers 12885 sq. ft. Is forced draft fitted ☒ No. and Description of Boilers 1 (Plain) Single Working Pressure 120 lbs Tested by hydraulic pressure to 240 lbs Date of test 21/4/13.

No. of Certificate 1110 Can each boiler be worked separately ☒ Area of fire grate in each boiler 38 sq. ft. No. and Description of safety valves to each boiler 2: Over Spring Area of each valve 7.06 sq. in. Pressure to which they are adjusted 125 lbs.

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 about 12 in. Mean dia. of boilers 12' 0" Length 11' 0"

Material of shell plates Steel Thickness 3/32 Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged ☒

Descrip. of riveting: cir. seams Lap Double long. seams Double Butt Straps Diameter of rivet holes in long. seams 31/32 Pitch of rivets 5 1/2 in. 2 1/2 in.

Gap of plates or width of butt straps 10 1/2 in. Per centages of strength of longitudinal joint rivets 83.2 plate 82.2 Working pressure of shell by rules 121 lbs. Size of manhole in shell 16" x 12" Size of compensating ring 30 x 26 x 3/32 No. and Description of Furnaces in each boiler 2: Plain Material Steel Outside diameter 44 1/2 Length of plain part top 49 Thickness of plates crown 31/32 bottom 32

Description of longitudinal joint 0-3 S. No. of strengthening rings none Working pressure of furnace by the rules 133 lbs. Combustion chamber plates: Material Steel Thickness: Sides 15/32 Back 15/32 Top 15/32 Bottom 3/4 Pitch of stays to ditto: Sides 8" x 7/8 Back 8" x 8"

Top 8" x 7/8 If stays are fitted with nuts or riveted heads ☒ Working pressure by rules 135 lbs Material of stays Steel Diameter at smallest part 1 1/2 Area supported by each stay 64 in. Working pressure by rules 153 lbs End plates in steam space: Material Steel Thickness 5/16

Pitch of stays 18 x 16 How are stays secured Double nut washers Working pressure by rules 135 lbs Material of stays Steel Diameter at smallest part 2 3/8

Area supported by each stay 288 in. Working pressure by rules 153 lbs Material of Front plates at bottom Steel Thickness 7/16 Material of Lower back plate Steel Thickness 7/16 Greatest pitch of stays 8 Working pressure of plate by rules 141 lbs Diameter of tubes 3 1/4

Pitch of tubes 4 3/8 x 4 1/2 Material of tube plates Steel Thickness: Front 15/16 Back 15/16 Mean pitch of stays 11 1/2 Pitch across wide water spaces 14 Working pressures by rules 160 lbs 228 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/2 x 17 1/2 Length as per rule 34 1/2 Distance apart 8 Number and pitch of Stays in each 3: 7 1/2

Working pressure by rules 124 lbs Superheater or Steam chest: how connected to boiler none Can the superheater be shut off and the boiler worked separately

holes	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	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,

Rankin & Blackmore Manufacturer.

Dates of Survey

During progress of work in shops - -

while building During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith ☒

See accompanying report. Total No. of visits 101

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

This Boiler was built under special survey and the materials and workmanship are good.

For recommendations see the accompanying sheet.

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

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

Wm. R. Austin.

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

Committee's Minute GLASGOW 15 JUL 1913

Assigned See minute on accompanying machinery report.

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