

REPORT ON BOILERS.

No. 16285
WED. JUL. 10. 1912

Received at London Office

Date of writing Report 19 When handed in at Local Office 4/7/1912 Port of Greenock.

No. in Survey held at Greenock. Date, First Survey 30th June 1912 Last Survey 2nd July 1912
Reg. Book. (Number of Visits 68) Gross 4705 Tons Net 2914.

on the SCREW STEAMER "HERA."

Master Built at Greenock By whom built Greenock & Traquair & Co. Ltd. When built 1912.

Engines made at Greenock. By whom made Rankin & Blackmore when made 1912.

Boilers made at Greenock. By whom made Rankin & Blackmore when made 1912.

Registered Horse Power Owners Port belonging to Hamburg

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Glasgow Iron & Steel Coy. Ltd.

(Letter for record ☒) Total Heating Surface of Boilers 1288 sq. ft. Is forced draft fitted ☒ No. and Description of Boilers One: Cylindrical boiler. Working Pressure 120 lb. Tested by hydraulic pressure to 240 lb. Date of test 1/4/12

No. of Certificate 1047. 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: Direct Spring. Area of each valve 4.06 sq. in. Pressure to which they are adjusted 125 lb.

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

Material of shell plates Steel Thickness $\frac{3}{32}$ " 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 $\frac{31}{32}$ " Pitch of rivets 5 $\frac{1}{2}$ " 2 $\frac{3}{4}$ ".

Gap of plates or width of butt straps 10 $\frac{1}{2}$ " Per centages of strength of longitudinal joint rivets 83.2 Working pressure of shell by plate 82.2.

Size of manhole in shell 16" x 12". Size of compensating ring 30" x 26" x $\frac{3}{32}$ " No. and Description of Furnaces in each boiler 2: Main. Material Steel Outside diameter 44 $\frac{1}{2}$ " Length of plain part top 49' Thickness of plates crown $\frac{5}{16}$ " bottom $\frac{3}{32}$ ".

Description of longitudinal joint 073.5. No. of strengthening rings none Working pressure of furnace by the rules 133 lb. Combustion chamber plates: Material Steel Thickness: Sides $\frac{1}{32}$ " Back $\frac{1}{32}$ " Top $\frac{1}{32}$ " Bottom $\frac{3}{4}$ ". Pitch of stays to ditto: Sides 8" x $\frac{7}{8}$ " Back 8" x 8".

Top 8" x $\frac{7}{8}$ " If stays are fitted with nuts or riveted heads ☒ Working pressure by rules 135 lb. Material of stays ☒ Diameter at smallest part 1 $\frac{1}{4}$ ". Area supported by each stay 64 sq. in. Working pressure by rules 153 lb. End plates in steam space: Material Steel. Thickness 59".

Pitch of stays 18" x 16". How are stays secured Double nuts & washers. Working pressure by rules 135 lb. Material of stays Steel. Diameter at smallest part 2 $\frac{3}{8}$ "

Area supported by each stay 288 sq. in. Working pressure by rules 153 lb. Material of Front plates at bottom Steel. Thickness $\frac{15}{16}$ ". Material of lower back plate Steel. Thickness $\frac{9}{16}$ ". Greatest pitch of stays 8". Working pressure of plate by rules 171 lb. Diameter of tubes 3 $\frac{1}{4}$ ".

Pitch of tubes 4 $\frac{3}{8}$ " x 4 $\frac{1}{2}$ ". Material of tube plates Steel. Thickness: Front $\frac{15}{16}$ " Back $\frac{15}{16}$ " Mean pitch of stays 11 $\frac{1}{4}$ ". Pitch across wide

ter spaces 14". Working pressures by rules 160 lb. 225 lb. Girders to Chamber tops: Material Steel. Depth and thickness of

der at centre 8 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ ". Length as per rule 34 $\frac{1}{2}$ ". Distance apart 8". Number and pitch of Stays in each 3: $\frac{7}{8}$ ".

Working pressure by rules 124 lb. Superheater or Steam chest: ☒ 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

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

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.

Is the approved plan of boiler forwarded herewith ☒

Total No. of visits 68.

During progress of work in shops --

During erection on board vessel --

See accompanying report

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

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

For recommendations see preceding sheet.

Survey Fee ... £ : : When applied for, 19.

Travelling Expenses (if any) £ : : When received, 19.

Shipping

RI. OCT. 1912

Committee's Minute

GLASGOW

9-JUL. 1912

Signed

See accompanying machinery report

Wm. Austin

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

FRI. OCT. 18. 1912

TUE. MAR. 1. 1913

FRI. MAR. 20. 1914

Lloyd's Register Foundation

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