

REPORT ON BOILERS.

No. 81767.
SAT. 22 JAN 1921

Received at London Office

Date of writing Report 10 When handed in at Local Office 21 JAN 1921 Port of LIVERPOOL

No. in Survey held at Birkenhead. Date, First Survey Dec 2nd/19 Last Survey Jan 12th 1921
 Reg. Book. \$250 on the Screw Steamer "Deaside". (Number of Visits 26) Gross 170 Tons Net 162

Master Built at Connah's Quay By whom built J. Crichton & Co. Ld. When built 1921

Engines made at Saltnay, Chester. By whom made J. Crichton & Co. Ld. When made 1921

Boilers made at Birkenhead. By whom made Cammell Laird & Co. Ld. When made 1920

Registered Horse Power Owners Deas Steam Shipping Co (1917) Ld. Port belonging to Sunderland.

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel The Parkgate Iron & Steel Co. The Earl of Dudley's Foundry & Works

(Letter for record S) Total Heating Surface of Boilers 1490 sq ft Is forced draft fitted No. and Description of Boilers One, Cylindrical Multitubular (S.B.) Working Pressure 130 lbs. Tested by hydraulic pressure to 260 lbs Date of test 7.5.20

No. of Certificate 2123 Can each boiler be worked separately Area of fire grate in each boiler 48 sq ft No. and Description of safety valves to each boiler Two, Spring loaded. Area of each valve 7.07 sq in 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 Inside dia. of boilers 13'-0" Length 10'-0"

Material of shell plates Steel Thickness 13/16" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D.R., Lap long. seams T.R. Double Straps Diameter of rivet holes in long. seams 1" Pitch of rivets 6 1/2"

Lap of plates or width of butt straps 14 5/8" Per centages of strength of longitudinal joint rivets 111% plate 84.6% Working pressure of shell by rules 131 lbs Size of manhole in shell 16" x 12" Size of compensating ring McNeil No. and Description of Furnaces in each boiler 3 - Plain Material Steel Outside diameter 3'-3 3/4" Length of plain part top 6'-0" bottom 6'-6 1/4" Thickness of plates crown 2 1/2" bottom 3 1/2"

Description of longitudinal joint Weld. No. of strengthening rings Working pressure of furnace by the rules 130 lbs Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 5/4" Pitch of stays to ditto: Sides 9 1/2" x 8 1/2" Back 9 1/2" x 8 1/2"

Top 9" x 7 1/2" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 131 lbs Material of stays Steel Area at smallest part 45 sq in Area supported by each stay 83.125 sq in Working pressure by rules 140 lbs End plates in steam space: Material Steel Thickness 15/16"

Pitch of stays 18 1/2" x 17" How are stays secured Double nut Washers Working pressure by rules 132 lbs Material of stays Steel Area at smallest part 4.57 sq in

Area supported by each stay 314.5 sq in Working pressure by rules 151 lbs Material of Front plates at bottom Steel Thickness 7/8" Material of Lower back plate Steel Thickness 25/32" Greatest pitch of stays 15" x 8 3/4" Working pressure of plate by rules 140 lbs Diameter of tubes 5 1/2" OD

Pitch of tubes 4 5/8" x 4 5/8" Material of tube plates Steel Thickness: Front 7/8" Back 13/16" Mean pitch of stays 11 9/16" Pitch across wide water spaces 14 1/2" Working pressures by rules 130 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 2 No. 6 1/2" x 15/16" Length as per rule 30 5/8" Distance apart 9" Number and pitch of Stays in each 3 No. 7 1/2"

Working pressure by rules 132 lbs Steam dome: description of joint to shell % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

The foregoing is a correct description,
 CAMMELL LAIRD AND COMPANY LIMITED
 J. W. Ireland Manufacturer.

Dates of Survey During progress of work in shops - - -
 while building During erection on board vessel - - -

1919 Dec 2, 8, 22, 30. 1920 Jan 14, Feb 2, 11, 17, 24. May 3, 4, 10, 17, 18, 29, 30.
 1921 Apr 9, 15, 21, 30. May 4, 6, 7, 26. Jan 6, 12.

Is the approved plan of boiler forwarded herewith? Yes

Total No. of visits 26.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Boiler has now been built under Special Survey & in accordance with the approved plan, and Secretary letter (E) dated 9th August 1919. The workmanship & materials are of good quality, & when tested to twice working pressure, was found satisfactory in every respect.

Survey Fee ... 75/- £ 7 : 14 : } When applied for, 21 JAN 1921 19
 Travelling Expenses (if any) £ : : } When received, 3. 3. 19

Committee's Minute LIVERPOOL 21 JAN 1921

Assigned See report attached.

John Dykes & Co. Ltd. Engineer Surveyor to Lloyd's Register of Shipping.

