

REPORT ON BOILERS

WED JUN 21 1920 No. 80562
SAT APR 24 1920

(Boiler No. 2015)

Received at London Office

Port of Liverpool

When handed in at Local Office

Date, First Survey 19th Dec/18 Last Survey Mar 24th 1919

of writing Report

Survey held at Birkenhead

(Number of Visits 22)

Gross

Tons

Net

on the s/s 'No. 71'

Built at Ellesmere Port By whom built Manchester Dry Docks Co. Ld. When built 1920

By whom made

When made

Lines made at

By whom made Cammell, Laird & Co. Ld. When made 1920

Boilers made at Birkenhead

Port belonging to

Registered Horse Power

Owners

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel H. Beardmore & Co. Ld., J. Walmesley & Co.

Number for record S Total Heating Surface of Boilers 952 sq. ft. Is forced draft fitted No. No. and Description of

Boilers One Cylindrical Multitubular Working Pressure 130 lbs. Tested by hydraulic pressure to 260 lbs. Date of test 21/3/19

Area of Certificate 2060 Can each boiler be worked separately Area of fire grate in each boiler 35 sq. ft. No. and Description of

Valves to each boiler 2 Spring loaded Area of each valve 2 1/2 dia. 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 10'6" Length 10'0"

Material of shell plates Steel Thickness 23/32 Range of tensile strength 28/32 lbs. Are the shell plates welded or flanged

Description of riveting: cir. seams DR-Lap long. seams DR-double butt diameter of rivet holes in long. seams 5/8 Pitch of rivets 4'8"

Percentage of plates or width of butt straps 93/4 Per centages of strength of longitudinal joint rivets 87.7 Working pressure of shell by plate 90.78

Size of manhole in shell 18" x 12" Size of compensating ring McKeil No. and Description of Furnaces in each

Boiler 2-Plain Material Steel Outside diameter 3'3 1/2 Length of plain part top 75 Thickness of plates crown 5/8 bottom 3/8

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 130 lbs. Combustion chamber

Material of stays: Material Steel Thickness: Sides 17/32 Back 17/32 Top 17/32 Bottom 27/32 Pitch of stays to ditto: Sides 8 1/2 x 7 1/2 Back 8 1/2 x 7 1/2

If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 137 lbs. Material of stays Steel Area at

Smallest part 1.19 sq. in. Area supported by each stay 62.68 sq. in. Working pressure by rules 152 lbs. End plates in steam space: Material Steel Thickness 27/32

Pitch of stays 16" x 14 1/2 How are stays secured Nuts Working pressure by rules 142 lbs. Material of stays Steel Area at smallest part 3.26 sq. in.

Area supported by each stay 236 sq. in. Working pressure by rules 144 lbs. Material of Front plates at bottom Steel Thickness 27/32 Material of

Over back plate Steel Thickness 27/32 Greatest pitch of stays 14 1/2 x 7 1/2 Working pressure of plate by rules 181 lbs. Diameter of tubes 3" ext.

Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 27/32 Back 4/8 Mean pitch of stays 10 1/2 Pitch across wide

Water spaces 14 Working pressures by rules 130 lbs. Girders to Chamber tops: Material Steel Depth and thickness of

Under at centre 2-6" x 23/32 Length as per rule 2'4 1/2 Distance apart 7 1/2 Number and pitch of Stays in each 2-8 1/2

Working pressure by rules 137 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 & Co. Limited
J. W. Baird Manufacturer.

Dates of Survey During progress of work in shops 1918 Dec 19, 1919 Jan 6, 10, 14, 15, 20, 24, 27, 31, Feb 4, 12, 13, 20, Mar 4, 7, 10. Is the approved plan of boiler forwarded herewith Yes

During erection on board vessel 1920 11, 12, 17, 20, 23, 24, 27, 28, 29, 30, 31, Apr 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, May 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Jun 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Jul 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Aug 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Sep 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Oct 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Nov 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Dec 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 1920 Total No. of visits 22.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under Special Survey in accordance with the approved plan and the Secretary's letter (E) of 28th October 1918. The materials and workmanship are of good quality. When tested under water pressure to 260 lbs per sq. in., the boiler was found tight and satisfactory in every respect. This boiler is being fitted on board at Ellesmere Port.

Survey Fee ... £ 2 : 5 : When applied for, 31 APR 1920
Travelling Expenses (if any) £ : : When received, 3/6/19 20 APR 1920

Committee's Minute LIVERPOOL 23 APR 1920
Assigned Transmit to London. J. W. Baird & Co. Ltd. Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation