

# REPORT ON BOILERS

No. 79333

12-1920

Boiler No. 2014

Received at London Office

Writing Report

When handed in at Local Office

29 JUL 1919

Port of

LIVERPOOL

WED MAY. 12 1920

Survey held at Birkenhead

Date, First Survey Decem 19/18

Last Survey July 14 1919

S.S. Dynamo

(Number of Visits 42)

Gross

Tons

Net

Built at Workington

By whom built R. Williamson &amp; Co

When built 1920

made at Glasgow

By whom made McKie &amp; Bayliss

When made 1920

made at Birkenhead

By whom made Cammell Laird &amp; Co. Ltd.

When made 1919

Horse Power

Owners Elleruan Nelson Ltd

Port belonging to Hull

## TITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

J. G. & Co. Ltd.  
H. Beardsmore & Co. Ltd.  
J. Wainwright & Co.

for record S ) Total Heating Surface of Boilers 1809 sq. ft. Is forced draft fitted. No. and Description of

One cylindrical multitubular Working Pressure 180 lb. Tested by hydraulic pressure to 360 lb. Date of test 11/7/19

Certificate 2077 Can each boiler be worked separately Area of fire grate in each boiler 57.75 sq. ft. No. and Description of

valves to each boiler Area of each valve Pressure to which they are adjusted

fitted with easing gear In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

at distance between boilers or uptakes and bunkers or woodwork Inside Mean dia. of boilers 14'0" Min Length 10'9"

of shell plates Steel Thickness 1 1/2" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No.

of riveting: cir. seams DR-Lap long. seams TR-Rumble Straps Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 1/2"

plates or width of butt straps 18 1/2" Per centages of strength of longitudinal joint rivets 93.08 plate 85.29 Working pressure of shell by

Size of manhole in shell 16" x 12" Size of compensating ring 14" keil No. and Description of Furnaces in each

3- Plain Material Steel Outside diameter 3'7 1/2" Length of plain part top 6'4 1/2" Thickness of plates crown 2 1/2" bottom 3 1/2"

tion of longitudinal joint Weld No. of strengthening rings One Working pressure of furnace by the rules 185 lb. Combustion chamber

Material Steel Thickness: Sides 3/8" Back 1/2" Top 1/2" Bottom 1" Pitch of stays to ditto: Sides 10 1/2" (7 1/2") Back 9" x 8 1/2"

If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 180 lb. Material of stays Steel Area at

part Area supported by each stay 49.97 sq. in. Working pressure by rules 180 lb. End plates in steam space: Material Steel Thickness 1 1/2"

stays 10 1/2" x 18 1/2" How are stays secured Nuts Working pressure by rules 185 lb. Material of stays Steel Area at smallest part 59.4 sq. in.

supported by each stay 342.25 sq. in. Working pressure by rules 180 lb. Material of Front plates at bottom Steel Thickness 3/8" Material of

back plate Steel Thickness 1 1/2" Greatest pitch of stays 13 1/4" x 8 1/2" Working pressure of plate by rules 186 lb. Diameter of tubes 3 1/4" ext.

tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 3 1/2" Back 2 1/2" Mean pitch of stays 13 1/2" x 9" Pitch across wide

spaces 14 1/2" Working pressures by rules 189 lb. Girders to Chamber tops: Material Steel Depth and thickness of

at centre 2- 8 1/2" x 7 1/2" Length as per rule 34 1/2" Distance apart 8 1/2" x 8 1/2" Number and pitch of Stays in each 2- 10 1/2"

pressure by rules 186 lb. Steam dome: description of joint to shell % of strength of joint

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

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

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

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

Pressure to which each is adjusted Is Easing Gear fitted

The foregoing is a correct description,

CAMMELL LAIRD AND COMPANY LIMITED

J. W. L. Laidlaw Manufacturer.

During progress of work in shops - - - Dec 19, 24, Jan. 6, 10, 14, 15, 20, 24, 27, 31, Feb 4. Is the approved plan of boiler forwarded herewith

During erection on board vessel - - - 12, 18, 26 Mar 4, 7, 10, 11, 13, 17, 20, 21, 26 Apr 1, 7, 10, 14 Total No. of visits 42

24, 29, 30 May 5, 8, 26, 29, June 3, 5, 11, 12, 20, 25, July 5, 11, 14.

## GENERAL REMARKS

(State quality of workmanship, opinions as to class, &amp;c.)

This boiler has been constructed under Special Survey in accordance with the approved plan and the Secretary's (E) of November 7<sup>th</sup> 1918. The materials and workmanship are of good quality. tested by water pressure to twice the working pressure it was found tight satisfactory in every respect. This boiler has been securely fitted on board and tried under steam with satisfactory results.

Fee ... £ 6 : 0 : When applied for, 29 JUL 1919

Shipping Expenses (if any) £ : : When received, 4<sup>th</sup> Sept. 1919.

Committee's Minute

LIVERPOOL

29 JUL 1919

Transmit to London

B. G. Oxford R. W. Coomber  
Engineer Surveyor to Lloyd's Register of Shipping.

GLASGOW

11 JUL 1920

See Glasgow Report

No. 39933

FRI MAY. 21 1920

2019-0010