

# REPORT ON BOILERS.

Received at London Office TUE 4 DEC 1917

Date of writing Report 101 When handed in at Local Office 3 DEC 1917 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 21 Jan 1916 Last Survey 16 Nov 1917  
 Reg. Book. on the (Number of Visits) Gross Tons }  
 Net Tons }

Master Built at By whom built When built

Engines made at By whom made When made

Boilers made at Sunderland By whom made MacCall & Pollock Ltd (No 265) When made 1917

Registered Horse Power Owners Port belonging to

**MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel John Spencer & Sons Ltd

(Letter for record (5)) Total Heating Surface of Boilers 1982 sq ft Is forced draft fitted no No. and Description of Boilers Two single ended marine Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 16-11-17

No. of Certificate 3448 Can each boiler be worked separately X Area of fire grate in each boiler 30 sq ft No. and Description of safety valves to each boiler Area of each valve 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 2 1/2 Mean dia. of boilers 10'-6" Length 10'-3"

Material of shell plates steel Thickness 29/32 Range of tensile strength 29 1/2 - 33 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams DR long. seams DBS, DR Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 5 3/32"

Lap of plates or width of butt straps 11 1/4" Per centages of strength of longitudinal joint rivets 82.8 Working pressure of shell by rules 183 plate 79.8

Size of manhole in shell 16x12" Size of compensating ring 28x26x 29/32 No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 3'-1 1/2" Length of plain part top 46 13/16" Thickness of plates crown 23/32" bottom 3/8"

Description of longitudinal joint welded No. of strengthening rings none Working pressure of furnace by the rules 185 Combustion chamber plates: Material steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 7/8" Pitch of stays to ditto: Sides 8 3/4" x 8 3/4" Back 8 3/4" x 8 3/8" Top 8" x 9" If stays are fitted with nuts or riveted heads nuts in use Working pressure by rules 183 Material of stays steel Area at smallest part 1-130" Area supported by each stay 13.50" Working pressure by rules 188 End plates in steam space: Material steel Thickness 7/8"

Pitch of stays 14x14" How are stays secured DN & wash Working pressure by rules 185 Material of stays steel Area at smallest part 3.67

Area supported by each stay 196 0" Working pressure by rules 194 Material of Front plates at bottom steel Thickness 7/8" Material of Lower back plate steel Thickness 7/8" Greatest pitch of stays 12 1/2" x 8 3/8" Working pressure of plate by rules 234 Diameter of tubes 3 1/4"

Pitch of tubes 4 3/8" x 4 1/2" Material of tube plates steel Thickness: Front 7/8" Back 13/16" Mean pitch of stays 11 1/16" Pitch across wide water spaces 13 1/2" Working pressures by rules 249 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 2 @ 7 1/2" x 13/16" Length as per rule 27 5/16" Distance apart 9" Number and pitch of Stays in each 2 @ 8"

Working pressure by rules 189 Steam dome: description of joint to shell none % of strength of joint 91

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 none 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,  
G.R. Pollock Manufacturer.  
 Managing Director.

Dates of Survey During progress of work in shops - - 1916 Jan 16, May 19, Oct 2, 1917 Jan 5, Sep 24, Oct 2 Is the approved plan of boiler forwarded herewith Yes  
 while building During erection on board vessel - - - 4, 9, 11, 16, 30, Nov. 8, 16 Total No. of visits 13

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

The workmanship and materials are good.  
 The boilers have been made under special survey.  
 These boilers were originally intended for the SS. Reynolds on the 8/11/17 & other vessels by Riley Bros has been supplied. In addition these boilers are of the same class.

Survey Fee ... £ 6 : 12 : - When applied for, 3 DEC 1917  
 Travelling Expenses (if any) £ : : When received, 17.10.1918

FRI. JUL. 30 1920

Sh. Davis  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 assigned La H. K. rpt 4992

TUE. SEP. 21 1920  
 FRI. 4 MAR. 1921  
 FRI. 9 SEP. 1921

Lloyd's Register Foundation