

## REPORT ON BOILERS.

No. 27185

Received at London Office SA 10 MAR 1918

Date of writing Report 101 When handed in at Local Office 6.2 1918 Port of SUNDERLAND

No. in Survey held at SUNDERLAND Date, First Survey see Machinery report Last Survey 5 March 1918

Reg. Book. on the new steel S/S "CLAN MACBEAN" (Number of Visits) Gross 5052 Net 3082

Master Built at Sunderland By whom built Bartram & Sons Ltd (Nº 243) When built 1918

Engines made at Sunderland By whom made J. Dickinson & Sons Ltd (Nº 800) When made 1918

Donkey Boilers made at Sunderland By whom made J. Dickinson & Sons Ltd (Nº 1054) When made 1918

Registered Horse Power Owners Kayser, Irvine & Co. Port belonging to Glasgow

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

(Letter for record 5) Total Heating Surface of Boilers 1152  $\text{ft}^2$  Is forced draft fitted no No. and Description of Boilers one single ended main Working Pressure 120 Tested by hydraulic pressure to 240 Date of test 25-1-18

No. of Certificate 3457 Can each boiler be worked separately Area of fire grate in each boiler 33  $\text{ft}^2$  No. and Description of safety valves to each boiler two direct spring Area of each valve 7.07  $\text{ft}^2$  Pressure to which they are adjusted 120

Are they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 10'-10 5/8" Length 11'-0"

Material of shell plates steel Thickness 11/16 Range of tensile strength 28-32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams DR long. seams DBS. TR Diameter of rivet holes in long. seams 15/16 Pitch of rivets 4 3/4"

Lap of plates or width of butt straps 9 1/8" Per centages of strength of longitudinal joint rivets 943 plate 80.26 Working pressure of shell by rules 121 Size of manhole in shell 16" x 12" Size of compensating ring 7 1/2" x 11/16" No. and Description of Furnaces in each boiler two plain Material steel Outside diameter 3'-2" Length of plain part top 6'-4 1/2" Thickness of plates crown 5/8" bottom 7'-2 1/4"

Description of longitudinal joint SBS. SR No. of strengthening rings none Working pressure of furnace by the rules 127 Combustion chamber plates: Material steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 3/4" Pitch of stays to ditto: Sides 9" x 10 1/2" Back 10" x 10 5/8" Top 8" x 10 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 127 Material of stays steel Area at smallest part 1.730" Area supported by each stay 106  $\text{ft}^2$  Working pressure by rules 130 End plates in steam space: Material steel Thickness 3/4" Pitch of stays 15" x 14 1/2" How are stays secured DN&W Working pressure by rules 123 Material of stays steel Area at smallest part 2.50"

Area supported by each stay 2170" Working pressure by rules 120 Material of Front plates at bottom steel Thickness 13/16" Material of Lower back plate steel Thickness 11/16" Greatest pitch of stays 12 1/2" x 10 5/8" Working pressure of plate by rules 121 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates steel Thickness: Front 13/16" Back 11/16" Mean pitch of stays 9" x 13 1/2" Pitch across wide water spaces 1'-2" Working pressures by rules 121 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 6 1/2" x 13 3/4" Length as per rule 2'-9 3/16" Distance apart 8" Number and pitch of Stays in each 2 @ 10 1/2"

Working pressure by rules 131 Steam dome: description of joint to shell none % 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 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,  
John Dickinson & Sons, Limited  
Dickinson Manufacturer.

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits

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

see Machinery report

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

The material and workmanship is good.

The boiler has been constructed under special survey, satisfactorily fitted in the vessel and its safety valves adjusted under steam

Survey Fee ... £ 3 : 17 : When applied for, 15 MAR 1918

Travelling Expenses (if any) £ : : When received, 9-4-1918

Committee's Minute

TUE 19 MAR 1918

TUE 22 AUG 1922

Assigned

See first entry rpt. attached

FRI 6 APR 1923

TUE OCT 10 1922

TUE NOV 28 1922

014675-014685-0005

Lloyd's Register  
Foundation