

REPORT ON BOILERS.

No. 35892

THU. 30 MAR. 1916

Received at London Office

Date of writing Report 1916 When handed in at Local Office 1916 Port of Glasgow

No. in Survey held at 1916 Date, First Survey 23/6/15 Last Survey 10/3/16

Reg. Book. on the boiler No 670 of S.S. Cliburn (Russell & Williamson Ltd 226 Vessel) (Number of Visits 32) Gross Tons 1916 Net Tons 1916

Master W. Beardmore & Co Ltd Built at Workington By whom built R. Williamson & Son When built 1916

Engines made at Coatbridge By whom made W. Beardmore & Co Ltd (Speedwell Iron Co) When made 1916

Boilers made at Glasgow By whom made Messrs A. & W. Dalglisch (670) When made 1916

Registered Horse Power 1916 Owners 1916 Port belonging to 1916

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

(Letter for record S) Total Heating Surface of Boilers 1585 ^{sq ft} Is forced draft fitted Yes No. and Description of Boilers One single ended Working Pressure 180 ^{lb} Tested by hydraulic pressure to 360 ^{lb} Date of test 10.3.16

No. of Certificate 13378 Can each boiler be worked separately Yes Area of fire grate in each boiler 1916 No. and Description of safety valves to each boiler 1916 Area of each valve 1916 Pressure to which they are adjusted 1916

Are they fitted with casing gear 1916 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler 1916

Smallest distance between boilers or uptakes and bunkers or woodwork 1916 Mean dia. of boilers 12-9 Length 10-0

Material of shell plates Steel Thickness 1 1/16 Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D.R. long. seams TR DBS Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 8

Lap of plates or width of butt straps 16 1/2 Per centages of strength of longitudinal joint rivets 86.9 Working pressure of shell by rules 185 plate 85.9

Size of manhole in shell 16 x 12 Size of compensating ring 7 x 2 3/4 x 1 1/8 No. and Description of Furnaces in each boiler Three, plain Material Steel Outside diameter 3-1 Length of plates 1916 top 72.68 Thickness of plates crown 1 1/16 bottom 66.18 bottom 16

Description of longitudinal joint weld No. of strengthening rings 1916 Working pressure of furnace by the rules 180 Combustion chamber plates: Material Steel Thickness: Sides 2 1/32 Back 5/8 Top 2 1/32 Bottom 3/4 Pitch of stays to ditto: Sides 9 x 8 Back 9 x 8

Top 9 x 8 1/2 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 187 Material of stays Steel Diameter at smallest part 1 7/8 Area supported by each stay 76.5 Working pressure by rules 210 End plates in steam space: Material Steel Thickness 1 1/16

Pitch of stays 17 x 16 How are stays secured Nuts Working pressure by rules 185 Material of stays Steel Diameter at smallest part 4 7/8 Area supported by each stay 272 Working pressure by rules 182 Material of Front plates at bottom Steel Thickness 7/8 Material of Lower back plate Steel Thickness 7/8 Greatest pitch of stays 14 Working pressure of plate by rules 260 Diameter of tubes 3 1/2

Pitch of tubes 4 5/8 x 4 5/8 Material of tube plates Steel Thickness: Front 1/8 Back 3/4 Mean pitch of stays 10.4 Pitch across wide water spaces 4 with 5/8 D.P. Working pressures by rules 258 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 3/4 x 1 1/4 Length as per rule 30.625 Distance apart 8 1/2 Number and pitch of Stays in each Two 9

Working pressure by rules 180 Superheater or Steam chest; how connected to boiler 1916 Can the superheater be shut off and the boiler worked separately 1916 Diameter 1916 Length 1916 Thickness of shell plates 1916 Material 1916 Description of longitudinal joint 1916 Diam. of rivet holes 1916 Pitch of rivets 1916 Working pressure of shell by rules 1916 Diameter of flue 1916 Material of flue plates 1916 Thickness 1916

If stiffened with rings 1916 Distance between rings 1916 Working pressure by rules 1916 End plates: Thickness 1916 How stayed 1916 Working pressure of end plates 1916 Area of safety valves to superheater 1916 Are they fitted with casing gear 1916

Survey request form

No. 1743 attached

The foregoing is a correct description,

A. & W. Dalglisch Manufacturers

Dates of Survey: During progress of 1915 Jun 23 July 13 Aug 18 15 30 Sept 15 23 29 Oct 1915 Is the approved plan of boiler forwarded herewith Yes
 work in shops - - - 8.13.15.24.29. Nov 3.9.16.24. Dec 3.10.20.29.
 while building: During erection on 1916 Jan. 12.21.25. Feb 14.9.24. Mar 19.10. Total No. of visits 32.
 board vessel - - -

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey, the material and workmanship is good. The boiler will be fitted on board the S.S. Cliburn at Glasgow, by Messrs W. Beardmore & Co Ltd (Speedwell Iron Co).

Survey Fee 1916 £ : : } When applied for, 1916
 Travelling Expenses (if any) £ : : } When received, 1916

Shipping. W. Beardmore & Co Ltd
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute **GLASGOW** 28 MAR. 1916 **GLASGOW** 30 MAY. 1916
 Assigned **TRANSMIT TO LONDON** // See minute on Gb. Rpt. No. 36026

