

# REPORT ON BOILERS.

No. 34386

Received at London Office 9 JAN. 1918

Date of writing Report 191 When handed in at Local Office 191 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 10th Oct., 1916 Last Survey 9th Nov., 1917

Reg. Book. on the Boiler nos 699-700 for Ardrossan & Co. Eng Ltd No 269 Vessel of Philotis (Number of Visits 25) } Gross Tons } Net

Master Built at Ardrossan By whom built Ard & Co. Eng Ltd (No 269) When built 1917

Engines made at Coatbridge By whom made W Beardmore & Co Ltd (No 471) When made 1917

Boilers made at Glasgow By whom made A & W Dalglisk 699/400 When made 1917

Registered Horse Power Owners Port belonging to

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Steel Co of Scotland Ltd & Colville & Sons Ltd

(Letter for record S) Total Heating Surface of Boilers 2456 ft<sup>2</sup> Is forced draft fitted No. and Description of Boilers Two Single ended Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 8.11.17

No. of Certificate 13976 Can each boiler be worked separately Yes Area of fire grate in each boiler 30 ft<sup>2</sup> No. and Description of safety valves to each boiler 1 Pair Spring loaded Area of each valve 3.94 sq in Pressure to which they are adjusted 185 lbs

Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler None

Smallest distance between boilers or uptakes and bunkers or woodwork Inside Mean dia. of boilers 12.0 Length 10.0

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

Descrip. of riveting: cir. seams D.R. long. seams TRDBS Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 7 5/8

Lap of plates or width of butt straps 15 3/4 Per centages of strength of longitudinal joint 86.46 Working pressure of shell by rules 184 lb Size of manhole in shell 16 x 12 Size of compensating ring 2.4 x 2.0 x 1 No. and Description of Furnaces in each boiler 2 Plain Material Steel Outside diameter 3-6 Length of plain part 74 Thickness of plates 49 (crown) 64 (bottom)

Description of longitudinal joint weld No. of strengthening rings 1 Working pressure of furnace by the rules 186 lb Combustion chamber plates: Material Steel Thickness: Sides 3 1/32 Back 5/8 Top 2 1/32 Bottom 1 3/16 Pitch of stays to ditto: Sides 9 x 8 1/2 Back 8 1/2 x 8 1/2 Top 9 x 8 1/2 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 184 Material of stays Steel Diameter at smallest part 1.79 Area supported by each stay 764 Working pressure by rules 211 End plates in steam space: Material Steel Thickness 1 1/32

Pitch of stays 17 x 16 How are stays secured 100 x W Working pressure by rules 185 Material of stays Steel Diameter at smallest part 4.77

Area supported by each stay 2590 Working pressure by rules 191 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 180 Diameter of tubes 3 1/2

Pitch of tubes 4 3/4 Material of tube plates Steel Thickness: Front 7/8 Back 3/16 Mean pitch of stays 10.8 Pitch across wide water spaces 14 1/2 Working pressures by rules 228 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/2 x 1 1/32 Length as per rule 30.6 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 None Can the superheater be shut off and the boiler worked separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

Survey request form No. 19291 attached 1930

The foregoing is a correct description, A. & W. Dalglisk Manufacturers

Dates of Survey: During progress of work in shops 1916 Oct. 21, Nov. 2, 8, 16, 24, 27, Dec. 7, 14, 19, 1917 Jan. 9, 10. Is the approved plan of boiler forwarded herewith 2 Plans

while building: During erection on board vessel 22 Feb. 6, 14, Mar. 1, 2, 23, Apr. 2, 5, 16, 25, May 1, 7, Nov. 7, 9. Total No. of visits 25

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey, the materials and workmanship are good.

The boiler will be fitted to the vessel at Glasgow.

The boilers have now been securely fitted on board & their safety valves adjusted under steam. To be charged on machinery report.

Survey Fee ... £ 8 : 8 : 0 When applied for, report. 191

Travelling Expenses (if any) £ : : When received. 191

Committee's Minute GLASGOW 8-JAN 1918

Assigned See Glasgow Machinery Report attached.

Jas Easthope  
Engineer Surveyor to Lloyd's Register of Shipping.

Wm. A. Ferguson  
Lloyd's Register Foundation

2/1/18

If not, state whether, and when, one will be sent

If a Report also sent on the Hull of the Ship