

# REPORT ON BOILERS.

No. 41336

Received at London Office W.F.U. 7 SEP. 1921

Date of writing Report 29 Aug 1921 When handed in at Local Office 29 Aug 1921 Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 10th Feb 1920 Last Survey 23rd August 1921  
 Reg. Book. S.S. Broughty (Number of Visits 20) Tons }  
 on the S.S. Broughty }  
 Master Larne Built at Larne By whom built Larne Shipbuilding Co When built 1921  
 Engines made at Coatbridge By whom made Wm Beardmore & Co Ltd (Stb) When made 1921  
 Boilers made at Glasgow By whom made Ar W Dalgligh No 768 When made 1921  
 Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

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

(Letter for record S) Total Heating Surface of Boilers 1566 sq ft Is forced draft fitted \_\_\_\_\_ No. and Description of Boilers One Single Ended Multitubular Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 23/8/21

No. of Certificate 15888 Can each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler \_\_\_\_\_ 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 \_\_\_\_\_ <sup>INS</sup> dia. of boilers 13'-0" Length 10'-3"

Material of shell plates Steel Thickness 1 1/8 Range of tensile strength 28/32 Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Lap S.R. long. seams SBS S.R. Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7 1/4

Lap of plates or width of butt straps 16 5/8 Per centages of strength of longitudinal joint rivets 89 Working pressure of shell by rules 181 Size of manhole in shell 16" x 12" Size of compensating ring 32" x 28" x 1 1/2

boiler 3 Brighton Material Steel Outside diameter 3'-6" Length of plain part 3'-0" Thickness of plates crown 1 1/8 bottom 1 1/2

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

Top 8 1/2 x 9 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 190 Material of stays Steel Area at smallest part 15 Area supported by each stay 64 Working pressure by rules 187 End plates in steam space: Material Steel Thickness 1 1/8

Pitch of stays 18 x 18 How are stays secured DNW Working pressure by rules 185 Material of stays Steel Area at smallest part 61

Area supported by each stay 324 Working pressure by rules 195 Material of Front plates at bottom Steel Thickness 1 1/8 Material of Lower back plate Steel Thickness 1 1/8 Greatest pitch of stays 14 x 8 Working pressure of plate by rules 200 Diameter of tubes 3 1/4

Pitch of tubes 4 1/8 x 4 3/8 Material of tube plates Steel Thickness: Front 1 1/8 Back 1 1/2 Mean pitch of stays 8 1/2 x 8 1/2 Pitch across wide water spaces 14 Working pressures by rules 258 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/2 x 16 x 2 Length as per rule 30 1/2 Distance apart 8 1/2 Number and pitch of Stays in each 10 8 1/2 x 9

Working pressure by rules 194 Steam dome: description of joint to shell weld % 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, A. W. Dalgligh Manufacturer's

Survey request form No. 2464 attached

Dates of Survey: During progress of work in shops - 1920 Feb 10, Mar 24, Apr 7, 14, 22, May 4, Jun 8, Aug 5, 12, Sep 6, 15, 21 Is the approved plan of boiler forwarded herewith Yes

while building: During erection on board vessel - - - Total No. of visits 20

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

This boiler has been built under special survey.  
The workmanship & materials are of good quality.  
The boiler will be fitted on board at Glasgow.  
Boiler now securely fitted on board.

Survey Fee ... £ 10 : 8/- When applied for, 5.9.1921

Travelling Expenses (if any) £ \_\_\_\_\_ When received, 9.12.1921

Committee's Minute GLASGOW, 6-SEP-1921

Assigned TRANSMIT TO LONDON

See G.S. Rpt. 41464

Engineer, Surveyor to Lloyd's Register of Shipping. 25 OCT 1921

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FRI. 2 DEC. 1921