

pt. 5a.

REPORT ON BOILERS.

No. 31579.

Received at London Office

WED. JUN. 19. 1912

Date of writing Report

191

When handed in at Local Office

June 13th 1912

Port of Glasgow

No. in Survey held at Glasgow

Date, First Survey 6. 2. 12

Last Survey 10. 6. 1912.

Reg. Book.

on the Boilers 2nd B 179 & 179

(Number of Visits 16)

Gross 1968
Net 1118

Master

Built at Port Glasgow

By whom built Dunlop, Bremner & Co

When built 1912

Engines made at Port Glasgow

By whom made Dunlop, Bremner & Co

When made 1912

Boilers made at Glasgow

By whom made David Rowan & Co

When made 1912

Registered Horse Power

Owners Pea Shipping Co Ltd.

Port belonging to Liverpool

MULTITUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel *Steel Company of Scotland & James Dunlop & Co*

(Letter for record (S)) Total Heating Surface of Boilers 3800 sq ft Is forced draft fitted *no* No. and Description of Boilers *Two Single Ended* Working Pressure 180 Tested by hydraulic pressure to 360 lb Date of test 31/5/12

No. of Certificate 11617 Can each boiler be worked separately *no* Area of fire grate in each boiler 56.3 sq ft No. and Description of safety valves to each boiler *no* Area of each valve *no* Pressure to which they are adjusted *no*

Are they fitted with easing gear *no* 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 *no* ^{sub.} diam. of boilers 14.6 Length 10.6

Material of shell plates *steel* Thickness 1 5/32 Range of tensile strength 28.495 Are the shell plates welded or flanged *no*

Descrip. of riveting: cir. seams D. R. L. long. seams S. B. S. Diameter of rivet holes in long. seams 1 1/4 Pitch of rivets 8.5625

Lap of plates or width of butt straps 18 1/2 Per centages of strength of longitudinal joint rivets 91.8 Working pressure of shell by plate 85.4

rules 180 Size of manhole in shell 13" x 17" Size of compensating ring *Flanged* No. and Description of Furnaces in each boiler 3 *Dighton* Material *steel* Outside diameter 3.9 1/16 Length of plain part *top* *bottom* Thickness of plates *crown* 1 17/32 *bottom* 1 32

Description of longitudinal joint *weld* No. of strengthening rings *no* Working pressure of furnace by the rules 182 Combustion chamber plates: Material *steel* Thickness: Sides 1 1/16 Back 5/8 Top 1 1/16 Bottom 1 1/16 Pitch of stays to ditto: Sides 10 x 9 Back 9 1/4 x 8

Top 10 x 9 If stays are fitted with nuts or riveted heads *no* Working pressure by rules 181 Material of stays *steel* ^{area} Diameter at smallest part 2.07 Area supported by each stay 74 Working pressure by rules 190 End plates in steam space: Material *steel* Thickness 1 9/32

Pitch of stays 20 How are stays secured *D. nuts* Working pressure by rules 183 Material of stays *steel* ^{area} Diameter at smallest part 7.05

Area supported by each stay 400 Working pressure by rules 184 Material of Front plates at bottom *steel* Thickness 1 3/16 Material of Lower back plate *steel* Thickness 2 7/32 Greatest pitch of stays 14 7/16 Working pressure of plate by rules 180 Diameter of tubes 3 1/4

Pitch of tubes 4 1/2 Material of tube plates *steel* Thickness: Front 1 3/16 ^{20lb.} Back 1 3/16 Mean pitch of stays 11 1/4 Pitch across wide water spaces 15 1/4 Working pressures by rules 186 Girders to Chamber tops: Material *steel* Depth and thickness of girder at centre 8 3/8 x 3/4 x 2 Length as per rule 31 7/8 Distance apart 9 Number and pitch of Stays in each 2 - 10

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 *no*

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 Survey request form Area of safety valves to superheater Are they fitted with easing gear

No. 955 attached

The foregoing is a correct description, for David Rowan & Co Manufacturer.

Dates of Survey } During progress of work in shops - - } 1912. Feb. 6. 16. March 6. 8. 18. 20. 28. while } During erection on board vessel - - } April 2. 11. 15. 19. May 1. 9. 21. 31. building } June 10.

Is the approved plan of boiler forwarded herewith *Yes.* Total No. of visits 16.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under Special Survey & are of good materials & workmanship. They have been forwarded to Greenock to be fitted on board.

Survey Fee ... £ 12 : 12 : } When applied for, 13/6/ 1912.

Travelling Expenses (if any) £ : : } When received, 1/8/ 1912.

H Gardner-Smith Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 18 JUN. 1912

GLASGOW 6 - AUG 1912

FRI. SEP. 20. 1912

Assigned Transmit to London.

Lloyd's Register Foundation W186-0069