

## REPORT ON BOILERS.

No. 252

Received at London Office 6 JUL 1917

Date of writing Report 5.7.1917 When handed in at Local Office 5.7.1917 Port of *Shelford*  
 No. in Survey held at *Oldbury* Date, First Survey 12.2 Last Survey 27/6/1917  
 Reg. Book. on the *Donkey Boilers No. 1171 P.S. "Ville de Aras"* (Number of Visits 5) Gross Tons }  
 Net Tons }  
 Master Built at *Londonderry* By whom built *North of Ireland S.B. 8<sup>th</sup>* When built 1918  
 Engines made at By whom made When made  
 Boilers made at *Oldbury* By whom made *Fred Danks L<sup>d</sup>* When made 1917  
 Registered Horse Power Owners Port belonging to

**MULTITUBULAR BOILERS** ~~MAIN, AUXILIARY OR DONKEY.~~ Manufacturers of Steel *Steel / Iron & Metal Works Ltd*  
 (Letter for record) Total Heating Surface of Boilers 9200 Is forced draft fitted No. and Description of Boilers *One Return Tube* Working Pressure 100th Tested by hydraulic pressure to 200th Date of test 27-6-17  
 No. of Certificate 371 Can each boiler be worked separately Area of fire grate in each boiler 297 No. and Description of safety valves to each boiler 2 - *Direct Spring* Area of each valve 4.9 sq. Pressure to which they are adjusted 105 lbs  
 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 on deck Mean dia. of boilers 18.6 Length 10.0  
 Material of shell plates Steel Thickness 5/8 Range of tensile strength 2732 Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams Lap, long. seams D.A.S. D.P. Diameter of rivet holes in long. seams 5/8 Pitch of rivets 3 5/8  
 Lap of plates or width of butt straps 9 1/2 Per centages of strength of longitudinal joint rivets 87% plate 74% Working pressure of shell by rules 103th Size of manhole in shell 16" x 12" Size of compensating ring 16" x 12" No. and Description of Furnaces in each boiler *Two plain* Material Steel Outside diameter 3' 1" Length of plain part top 7' 6" bottom 7' 6" Thickness of plates crown 9" bottom 9 1/4"  
 Description of longitudinal joint welded No. of strengthening rings Working pressure of furnace by the rules 112th Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 9/8" Top 1/2" Bottom 1 1/2" Pitch of stays to ditto: Sides 9" 7" Back 10 1/2" 9"  
 Top 8 1/2" x 7" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 106th Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 92 1/2 Working pressure by rules 103th End plates in steam space: Material Steel Thickness 1 1/2"  
 Pitch of stays 20 1/2" x 13 1/2" How are stays secured D.A.S. Working pressure by rules 121th Material of stays Steel Diameter at smallest part 3.45  
 Area supported by each stay 276 Working pressure by rules 103th Material of Front plates at bottom Steel Thickness 13/32 Material of Lower back plate Steel Thickness 5/8 Greatest pitch of stays 14" x 12" Working pressure of plate by rules 109th Diameter of tubes 3 1/2"  
 Pitch of tubes 4 5/8 Material of tube plates Steel Thickness: Front 23/32 Back 5/8 Mean pitch of stays 10 1/2" Pitch across wide water spaces 13 1/2 Working pressures by rules 100th Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6" x 1 1/2 Length as per rule 2' 2" Distance apart 8 1/2 Number and pitch of Stays in each 2 - 7"  
 Working pressure by rules 123th Superheater or Steam chest: how connected to boiler 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

The foregoing is a correct description,  
 For and on behalf of FRED DANKS, L<sup>d</sup> Manufacturer.

Dates of Survey During progress of work in shops 2/2 - 22/2 - 1/3 - 4/4 - 24/4 - 14/5 - 31/5 - 27/6/17 Is the approved plan of boiler forwarded herewith Yes Ref: 251  
 while building During erection on board vessel  
 Total No. of visits MANAGING DIRECTOR

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey, the materials tested in accordance with the Rules and the workmanship is good  
 This boiler is intended for the North of Ireland S.B. 8<sup>th</sup> No. 89 vessel

Survey Fee £ 2 : 2 : When applied for, 191  
 Travelling Expenses (if any) £ 2 : 10/8 : When received, 21.9.17. 191

FRI. MAY. 27 1921

Committee's Minute

Assigned

TUE. 18 JUN. 1918

FRI. SEP. 27. 1918

FRI. 13 FEB. 1920

FRI. 4-APR. 1919

FRI. JAN. 2-1920

FRI. 11 JUN. 1921

TUE. 16 MAR. 1920

TUE. OCT. 15 1920

P. F. Morton  
 Engineer Surveyor to Lloyd's Register of Shipping.