

# REPORT ON BOILERS.

No. 38402

TUE. 31 DEC. 1918

Received at London Office

Date of writing Report 1918 When handed in at Local Office 1918 Port of Glasgow  
 No. in Survey held at Dumbarton Date, First Survey May 13<sup>th</sup> 1918 Last Survey 14<sup>th</sup> November 1918  
 Reg. Book. SS "WAR COWSLIP" (Number of Visits 18) Tons } Gross  
 on the } Net  
 Master Built at Glasgow By whom built Harland & Wolff Ltd (No 529) When built 1918  
 Engines made at Glasgow By whom made Harland & Wolff Ltd (No 548) When made 1918  
 Boilers made at Dumbarton By whom made Tom Denny & Bros (S.O. 303) When made 1918  
 Registered Horse Power Owners Port belonging to

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

Letter for record (5) Total Heating Surface of Boilers 7668 Is forced draft fitted Yes No. and Description of Boilers 3 Single ended Working Pressure 180 Tested by hydraulic pressure to 300 Date of test 8/11/18  
 No. of Certificate 14522 Can each boiler be worked separately Yes Area of fire grate in each boiler 63.3 No. and Description of safety valves to each boiler 2 Spring loaded Area of each valve 9.625 Pressure to which they are adjusted 185 lb  
 Are they fitted with easing gear Yes 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 1'-9" Mean dia. of boilers 15'-6" Length 11'-6"  
 Material of shell plates Steel Thickness 1/4" Range of tensile strength 28 to 32 Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams lap double long. seams butt triple Diameter of rivet holes in long. seams 5/16" Pitch of rivets 9/8"  
 Lap of plates or width of butt straps 19 1/2 x 1 1/2 Per centages of strength of longitudinal joint rivets 85.3 Working pressure of shell by rules 182 plate 85.6  
 Size of manhole in shell 16" x 12" Size of compensating ring plate flanged No. and Description of Furnaces in each boiler 3 Doughton Material Steel Outside diameter 50 3/16" Length of plain part top 19 bottom 32 Thickness of plates 19 bottom 32  
 Description of longitudinal joint weld No. of strengthening rings — Working pressure of furnace by the rules 187 Combustion chamber plates: Material Steel Thickness: Sides 23/32" Back 11/16" Top 23/32" Bottom 23/32" Pitch of stays to ditto: Sides 10 3/8 x 9 1/4" Back 10 1/4 x 8 3/4"  
 Top 10 3/8 x 9 1/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180 Material of stays Steel Diameter at smallest part 2.395 Area supported by each stay 99 Working pressure by rules 216 End plates in steam space: Material Steel Thickness 1 1/2"  
 Pitch of stays 2 1/4 x 20 3/8" How are stays secured 2 1/2 W. Working pressure by rules 189 Material of stays Steel Diameter at smallest part 8.29  
 Area supported by each stay 454 Working pressure by rules 189 Material of Front plates at bottom Steel Thickness 31/32" Material of Lower back plate Steel Thickness 22/32" Greatest pitch of stays 13 5/8" Working pressure of plate by rules 205 Diameter of tubes 2 3/4"  
 Pitch of tubes 4 x 3 3/8" Material of tube plates Steel Thickness: Front 31/32" Back 3/4" Mean pitch of stays 9 1/16" Pitch across wide water spaces 13 3/8" Working pressures by rules 182 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10 x 7/8 double Length as per rule 36 Distance apart 10 5/8" Number and pitch of Stays in each (3) 9 1/4"  
 Working pressure by rules 182 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

The foregoing is a correct description,  
 For WILLIAM DENNY & BROTHERS, LTD. Manufacturer.  
James Denny Director

Dates of Survey } During progress of 1918 May 13 June 6, 12, 25 July 3, 29 Aug 5, 21 Sep 3 Is the approved plan of boiler forwarded herewith  
 while } work in shops - - - }  
 building } During erection on } 6, 25 Oct 1, 14, 22, 31 Nov 7, 8, 14 } Total No. of visits 18  
 board vessel - - - }

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under special survey, the materials and workmanship are of good description, they have been satisfactorily fitted to the vessel.  
I have now been satisfactorily fitted to the vessel as per above 14/12/18

Survey Fee ... £ See memo : } When applied for, ..... 191  
 Travelling Expenses (if any) £ Rept. : } When received, ..... 191

A. M. McLeod  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW. 30 DEC 1918  
 Assigned See attached machinery report

