

REPORT ON BOILERS.

No. 34350

Received at London Office WED. 2-JAN. 1918

Date of writing Report 191 When handed in at Local Office 191 Port of Glasgow
 No. in Survey held at Clydebank Date, First Survey 31st July, 1917 Last Survey 8th Octr. 1917
 Reg. Book. on the Boilers 50 7/11 F.B.C. (Standard) S.S. "War Cobra" (Number of Visits 6) Tons { Gross 515 1/2
 Net 313 2
 Master Luffery Built at Belfast By whom built Harland & Wolff L^{td} When built 1917
 Engines made at Belfast By whom made - When made -
 Boilers made at Clydebank By whom made John Brown & Co Ltd When made 1917
 Registered Horse Power - Owners Shipping Controller Port belonging to London

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

Letter for record 5 Total Heating Surface of Boilers 7668 sq ft Is forced draft fitted yes No. and Description of Boilers Three single ended Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 8.10.17
 No. of Certificate 13923 Can each boiler be worked separately Yes Area of fire grate in each boiler 63.3 sq ft No. and Description of safety valves to each boiler 2-Direct Spring Area of each valve 9.62 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 Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 8 ft Mean dia. of boilers 15.6 Length 11.6
 Material of shell plates steel Thickness 1 1/4 Range of tensile strength 28/32 tons Are the shell plates welded or flanged no
 Descrip. of riveting: cir. seams DR Lap long. seams DBS. TR Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 9 3/8
 Lap of plates or width of butt straps 19 1/2 Per centages of strength of longitudinal joint rivets 88.3 Working pressure of shell by rules 182 Size of manhole in shell end 16 x 12 Size of compensating ring/plate flanged in No. and Description of Furnaces in each boiler 3 Beighton Material steel Outside diameter 50 3/16 Length of plain part top - bottom - Thickness of plates 19/32
 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 5/8 x 9 1/4 Back 10 1/4 x 8 3/4
 Top 10 5/8 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 2.39 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 21 3/4 x 20 5/8 How are stays secured DN & 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 27/32 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 7/8 Material of tube plates steel Thickness: Front 31/32 Back 3/4 Mean pitch of stays 9 7/16 Pitch across wide water spaces 13 5/8 Working pressures by rules 182 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 2 plates 10 x 7/8 Length as per rule 36 Distance apart 10 5/8 Number and pitch of Stays in each 3 of 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,
 John Brown & Company, Limited.
 Manufacturers

Dates of Survey { During progress of work in shops - - - } 1917 July 31 Aug. 4 Sep. 3. 24 Oct. 1. 8.
 while building { During erection on board vessel - - - }
 Is the approved plan of boiler forwarded herewith Yes
 Total No. of visits 6

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under special survey in accordance with the rules and approved plan, and have been tested by hydraulic pressure to 360 lbs. Materials & workmanship are good. The boilers have been forwarded to Belfast 12/12/17

Survey Fee £ 33 : : When applied for, 1917
 Travelling Expenses (if any) £ : : When received, 26-1-1918
 To be paid in Belfast by Harland & Wolff 28-1-18 Harry Clarke
 Engineer Surveyor to Lloyd's Register of Shipping.