

REPORT ON BOILERS.

No. 70512

Date of writing Report 21st July 1917 When handed in at Local Office 21st July 1917 Port of Newcastle on Tyne
 No. in Survey held at Garrow Date, First Survey 23rd July 1917 Last Survey 27th Nov. 1917
 Reg. Book. on the H.M. Ferry Steamer "T.F. 2" (Number of Visits) Gross 2678 Tons Net 1105
 Master Built at Newcastle By whom built Lieut. Armstrong Whitworth & Co. Ltd. No. 922 When built 1917
 Engines made at Newcastle By whom made Halls and Shipway & Co. Ltd. No. 795 When made 1917
 Boilers made at Garrow By whom made Palmer's Shipbuilding & Iron Co. Ltd. No. 5257 When made 1917
 Registered Horse Power Owners British Government Port belonging to

Received at London Office FRI. 14 DEC. 1917

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY.~~—Manufacturers of Steel Spencer & Sons Ltd
 (Letter for record S) Total Heating Surface of Boilers 6698 sq ft Is forced draft fitted Yes No. and Description of Boilers Four Single Ended Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of Test (2) 18/5/17 (2) 14/6/17
 No. of Certificate (2) 8965 (2) 8971 Can each boiler be worked separately Yes Area of fire grate in each boiler oil fuel No. and Description of safety valves to each boiler No. direct spring Area of each valve 7.07 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 oil fuel tanks and bunkers for woodwork 9' 6" Inside dia. of boilers 12-4" Length 11-9"
 Material of shell plates Steel Thickness 1" Range of tensile strength 29/33 tons Are the shell plates welded or flanged No
 Descrip. of riveting: cir. seams DR Lap long. seams 5R Butt Diameter of rivet holes in long. seams 1/32" Pitch of rivets 7/16"
lap of plates width of butt straps 15 3/8" Per centages of strength of longitudinal joint rivets 85.8 Working pressure of shell by rules 183 lbs Size of manhole in shell 16" x 12" Size of compensating ring McNeil's No. and Description of Furnaces in each boiler No. Union Material Steel Outside diameter 47 7/8" Length of plain part top Thickness of plates 9/16" bottom 1"
 Description of longitudinal joint Welded No. of strengthening rings Yes Working pressure of furnace by the rules 183 lbs Combustion chamber plates: Material Steel Thickness: Sides 21/32" Back 21/32" Top 21/32" Bottom 1" Pitch of stays to ditto: Sides 9/20 x 8 7/8" Back 9/8 x 8 7/8"
 Top 9/16 x 7 1/8" stays are fitted with nuts or riveted heads nuts, riveted Working pressure by rules 184 Material of stays Steel Diameter at smallest part 2.03 in Area supported by each stay 81 sq in Working pressure by rules 206 End plates in steam space: Material Steel Thickness 1/8"
 Pitch of stay 18 3/4 x 17 How are stays secured nuts & washers Working pressure by rules 182 Material of stay Steel Diameter at smallest part 5.56 in
 Area supported by each stay 312 sq in Working pressure by rules 185 Material of Front plates at bottom Steel Thickness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 14" Working pressure of plate by rules 261 Diameter of tubes 2 1/2"
 Pitch of tubes 3 1/4 x 3 7/8 Material of tube plate Steel Thickness: Front 1" Back 3/4" Mean pitch of stays 7 7/8" Pitch across wide water spaces 13 1/4" Working pressures by rules 204 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 1/2 x 1 1/2 Length as per rule 33 19/32 Distance apart 9 1/4" Number and pitch of Stays in each Three 7 7/8"
 Working pressure by rules 183 lbs Superheater or Steam chest: how connected to boiler Yes 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,
J. Kemp Manufacturer.
Palmer's Shipbuilding & Iron Co. Ltd.

Dates of Survey: During progress of work in shops 1917 Feb. 23, Mar. 9, 12, 21, 25, Apr. 5, 19, 30, May, 16, 17 while building: During erection of board vessel Jan. 8, 14, 21, Oct. 16
 Total No. of visits 14 + With report Yes under which Newcastle No. 70484

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These 4 boilers have been constructed under special survey, the materials and workmanship are of good quality. They have been forwarded to Hallsend to be fitted on board.

To be paid by Engineer
 Survey Fee £ : : When applied for, 191
 Travelling Expenses (if any) £ : : When received, 191

George Murdoch
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute TUE. 18. DEC. 1917