

## REPORT ON BOILERS.

No. 25665  
MON. APR. 28. 1913

Date of writing Report 1913 When handed in at Local Office 26.4.1913 Port of SUNDERLAND  
 No. in Survey held at SUNDERLAND Date, First Survey 6 Feb Last Survey 23 Apr. 1913  
 Reg. Book. on the Donkey Boiler S/S Harewood (Number of Visits 12) Gross 4150  
 Master Courney Built at Sunderland By whom built J. L. Thompson & Son. Ld. Tons Net 2570  
 Engines made at S. Land By whom made J. Dickinson & Sons Ld. When built 1913  
 Boilers made at " By whom made " When made 1913  
 Registered Horse Power Owners Norris & Dixon Ld. Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. Spencer & Sons Ld.

(Letter for record S) Total Heating Surface of Boilers 844 f. Is forced draft fitted ✓ No. and Description of Boilers one marine type Working Pressure 90 lbs Tested by hydraulic pressure to 180 Date of test 28.2.13  
 No. of Certificate 3095 Can each boiler be worked separately ✓ Area of fire grate in each boiler 23 f. No. and Description of safety valves to each boiler 2 Spring Area of each valve 4.9" Pressure to which they are adjusted 95 lbs.  
 Are they fitted with easing gear ✓ 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 about 18" Mean dia. of boiler 10 1/2 ft. Length 10 ft.  
 Material of shell plates S Thickness 19/32" Range of tensile strength 28 32 Are the shell plates welded or flanged no.  
 Descrip. of riveting: cir. seams S.R. lap, long. seams T.R. lap Diameter of rivet holes in long. seams 15/16 Pitch of rivets 3 1/2"  
 Width of butt straps 6 1/2" Per centages of strength of longitudinal joint rivets 80.39 Working pressure of shell by rules 92 lbs. Size of manhole in shell 16" x 12" Size of compensating ring 7 1/8" x 19/32" No. and Description of Furnaces in each boiler two plain Material S Outside diameter 3 ft. Length of plain part top 6' 2" Thickness of plates crown 5" bottom 6' 8 1/2"  
 Description of longitudinal joint S.R. S.H. No. of strengthening rings ✓ Working pressure of furnace by the rules 93 lbs Combustion chamber plates: Material S Thickness: Sides 5/8" Back 19/32" Top 5/8" Bottom 1/2" Pitch of stays to ditto: Sides 12" x 11" Back 11" x 11 1/2"  
 Top 7 1/2" x 12" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 96 lbs Material of stays S Diameter at smallest part 1.35" Area supported by each stay 126" Working pressure by rules 92 lbs End plates in steam space: Material S Thickness 2 1/32"  
 Pitch of stays 15" x 14 3/8" How are stays secured by nuts Working pressure by rules 94 lbs Material of stays S Diameter at smallest part 1.6"  
 Area supported by each stay 225.5" Working pressure by rules 92 lbs Material of Front plates at bottom S Thickness 1/2" Material of Lower back plate S Thickness 19/32" Greatest pitch of stays 12 3/4" Working pressure of plate by rules 92 Diameter of tubes 3 1/4"  
 Pitch of tubes 4 3/4" x 4 1/2" Material of tube plates S Thickness: Front 1/2" Back 1/2" Mean pitch of stays 14 1/2" x 11 5/8" Pitch across wide water spaces 1' 1 1/4" Working pressures by rules 91 lbs Girders to Chamber tops: Material S Depth and thickness of girder at centre 5 3/4" x 1 1/4" Length as per rule 2' 3 7/16" Distance apart 7 1/2" Number and pitch of Stays in each one @ 12"  
 Working pressure by rules 94 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,

John Dickinson &amp; Sons, Limited.

Manufacturer.

Dates of Survey During progress of work in shops -- 1913 Feb. 6, 7, 8, 11, 14, 28 Mar. 5, 24, 31  
 while building During erection on board vessel -- Apr. 4, 17, 23  
 Is the approved plan of boiler forwarded herewith ✓  
 Total No. of visits 12

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Boiler built under Survey: materials & workmanship good. Secured in place. Examined under steam & safety valves adjusted to 100 lbs.

Survey Fee ... £ 2 : 2 :  
 Travelling Expenses (if any) £ : :  
 When applied for, 26.4.1913  
 When received, 29.4.1913

Committee's Minute

Assigned

see minute

on Sld Rpt 25665

TUE. APR. 29. 1913

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

Lloyd's Register  
Foundation

W900-0054