

# REPORT ON BOILERS.

No. 24334  
MUR 3 FEB 1910

Received at London Office

Date of writing Report 19 2.2.10 When handed in at Local Office Port of Sunderland  
 No. in Survey held at Sunderland Date, First Survey 7 Sept '09 Last Survey 26 Jan'y 1910  
 Reg. Book. on the Donkey Boiler 7/5 Collingham (Number of Visits) Gross 4080 Tons Net 2540  
 Master Built at Sland By whom built J. L. Thompson & Co. When built 1909-10  
 Engines made at Sland By whom made J. Dickinson & Sons Ltd when made 1909, 10  
 Boilers made at " By whom made Do when made "  
 Registered Horse Power ✓ Owners Harris Dixon Ltd Port belonging to London

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

(Letter for record 5) Total Heating Surface of Boilers 877 f. Is forced draft fitted ✓ No. and Description of Boilers One S.E. Working Pressure 90 lb Tested by hydraulic pressure to 180 lb Date of test 11/12/09  
 No. of Certificate ✓ Can each boiler be worked separately ✓ Area of fire grate in each boiler 29.7 f. No. and Description of safety valves to each boiler 2 Spring Area of each valve 4.9 f. Pressure to which they are adjusted 95 lb  
 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 18" Mean dia. of boilers 10' 6" Length 10 ft  
 Material of shell plates S Thickness 9 5/32 Range of tensile strength 28/32 Are the shell plates welded or flanged Ends  
 Descrip. of riveting: cir. seams Lap 2 1/2 long. seams Lap 3 7/8 Diameter of rivet holes in long. seams 15/16 Pitch of rivets 3 1/2  
 Lap of plates or width of butt straps 6 1/2 Per centages of strength of longitudinal joint rivets 80.3 plate 44.5 Working pressure of shell by rules 92 lb Size of manhole in shell 16" x 12" Size of compensating ring 4 1/8 x 1 1/2 No. and Description of Furnaces in each boiler 2 plain Material S Outside diameter 3 ft Length of plain part top 6' 2" bottom 6' 8 1/2" Thickness of plates crown 1 1/2" bottom 1 1/2"  
 Description of longitudinal joint butt strap No. of strengthening rings ✓ Working pressure of furnace by the rules 91 lb Combustion chamber plates: Material S Thickness: Sides 7/8 Back 1 1/32 Top 7/8 Bottom 1 1/2 Pitch of stays to ditto: Sides 10" x 11 Back 11 1/2 x 11  
 Top 12 x 12 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 96 Material of stays S Diameter at smallest part 1.45 Area supported by each stay 126" Working pressure by rules 92 End plates in steam space: Material S Thickness 2 1/32  
 Pitch of stays 15 x 14 1/2 How are stays secured 7 nuts Working pressure by rules 95 Material of stays S Diameter at smallest part 2.03  
 Area supported by each stay 215" Working pressure by rules 98 Material of Front plates at bottom S Thickness 1 1/2 Material of Lower back plate S Thickness 1 1/2 Greatest pitch of stays 12 1/2 x 11 Working pressure of plate by rules 90 Diameter of tubes 3 1/2  
 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates S Thickness: Front 1 1/2 Back 1 1/2 Mean pitch of stays 14 1/2 Pitch across wide water spaces 13 1/2 Working pressures by rules 97 lb Girders to Chamber tops: Material S Depth and thickness of girder at centre 5 1/4 x 1 1/4 Length as per rule 2 1/4 Distance apart 4 1/2 Number and pitch of Stays in each 1 @ 4 1/2  
 Working pressure by rules 94 lb 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,  
J. Dickinson & Sons, Limited. Manufacturer.

Dates of Survey } During progress of work in shops - - } 1909. Sep. 7. 9. 15. 23 Oct. 14. Dec. 2. 16. Is the approved plan of boiler forwarded herewith ✓  
 while building } During erection on board vessel - - } 10. 11. 20. 24. 28 - 1910 - Jan. 15. 26. Total No. of visits 15.

### GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

*Boiler built under special survey. Materials & workmanship good & efficient. Examined under steam & found satisfactory.*

Survey Fee ... .. £ 2 : 2 : } When applied for, 2.2.10  
 Travelling Expenses (if any) £ : : } When received, 4.2.10

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

Committee's Minute

FEB. 4 FEB 1910

Assigned