

REPORT ON BOILERS.

No. 55563

Received at London Office
 Date of writing Report 12 Oct 1908 When handed in at Local Office 15 Oct 1908 Port of Newcastle on Tyne
 No. in Survey held at Newcastle Date, First Survey 20 June East Survey 9 Oct 1908
 Reg. Book. 200 on the Steel S.S. "Uamston Grange" (Number of Visits) Gross 3423
 Master F Harris -08 Built at Belfast By whom built Workman Clark & Co. L^d When built 1894-11
 Engines made at Belfast By whom made Workman Clark & Co. when made 1894
 Boilers made at Newcastle By whom made Hawthorn Leslie & Co. L^d when made 1908.
 Registered Horse Power Owners (Houlder Bros & Co. L^d Mgrs) Port belonging to London

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY~~ OR DONKEY. —Manufacturers of Steel J Spencer & Son
 (Letter for record S) Total Heating Surface of Boilers 4148 ϕ Is forced draft fitted Yes No. and Description of
 Boilers Two Cyl. Mult. S Ind. Working Pressure 189 Tested by hydraulic pressure to 360 Date of test 10-9-08.
 No. of Certificate 7754 Can each boiler be worked separately Yes Area of fire grate in each boiler 53 ϕ No. and Description of
 safety valves to each boiler Two Spring, Old Valve fitted, Area of each valve 9-62 Pressure to which they are adjusted 180
 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 24 Mean dia. of boilers 13-9 Length 11-3
 Material of shell plates S Thickness $1\frac{1}{4} + \frac{1}{32}$ Range of tensile strength 28-32 Are the shell plates welded or flanged No
 Descrip. of riveting: cir. seams d lap long. seams d straps Diameter of rivet holes in long. seams $1\frac{3}{8}$ Pitch of rivets $9\frac{1}{8}$
 Top of plates width of butt straps 20 Per centages of strength of longitudinal joint rivets 94 Working pressure of shell by
 rules 209 Size of manhole in shell 16 x 12 Size of compensating ring 37 x 33 x $1\frac{1}{2} + \frac{1}{32}$ plate 85 No. and Description of Furnaces in each
 boiler 3 Deighton Material S Outside diameter 42 $\frac{7}{8}$ Length of plain part top - bottom - Thickness of plates crown $\frac{1}{2} + \frac{1}{32}$
 Description of longitudinal joint Weld No. of strengthening rings Working pressure of furnace by the rules 191 Combustion chamber
 plates: Material S Thickness: Sides $\frac{5}{8} + \frac{1}{32}$ Back $\frac{5}{8} + \frac{1}{32}$ Top $\frac{5}{8} + \frac{1}{32}$ Bottom $\frac{7}{8}$ Pitch of stays to ditto: Sides $7\frac{1}{2} \times 10$ Back $9\frac{1}{4} \times 8$
 Top $10 \times 7\frac{3}{4}$ If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 184 Material of stays S Diameter at
 smallest part 1-74 Area supported by each stay 78-75 Working pressure by rules 180 End plates in steam space: Material S Thickness $1\frac{1}{32}$
 Pitch of stays $17\frac{7}{8} \times 14\frac{1}{4}$ How are stays secured d n & w Working pressure by rules 192 Material of stays S Diameter at smallest part 5-56
 Area supported by each stay 255 Working pressure by rules 213 Material of Front plates at bottom S Thickness / Material of
 lower back plate S Thickness $\frac{15}{16}$ Greatest pitch of stays as per plan Working pressure of plate by rules 180 Diameter of tubes $2\frac{1}{2}$
 Pitch of tubes $3\frac{5}{8} \times 3\frac{7}{8}$ Material of tube plates S Thickness: Front 1 Back $\frac{3}{4}$ Mean pitch of stays $7\frac{1}{2}$ Pitch across wide
 water spaces 14 Working pressures by rules 209 Girders to Chamber tops: Material S Depth and thickness of
 girder at centre $7\frac{3}{4} \times 1\frac{1}{4}$ Length as per rule 26 $\frac{3}{4}$ Distance apart $7\frac{3}{4}$ Number and pitch of Stays in each 2-10
 Working pressure by rules 230 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,

For R. & W. HAWTHORN, LESLIE & Co. L^d Manufacturer.

Dates During progress of work in shops - 20 June 20 July 11.8.07 Aug 6.10.13.14.19.21.25 Sep 27.8.10 Is the approved plan of boiler forwarded herewith
 Survey while building During erection on board vessel - Sep 15.16.22.24.25.30 Oct 6.8.9. Total No. of visits 25

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

The material & workmanship is good.
 The boilers have been built under special Survey & are properly fitted
 in the vessel. Please see attached report.

Survey Fee ... £ 11-5-6 When applied for, 15 OCT 1908

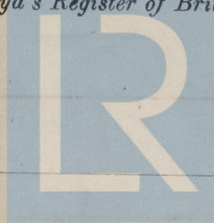
Travelling Expenses (if any) £ : : When received, 22.12.08 24/12/08

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

Committee's Minute

TUES. 20 OCT 1908

Assigned



Lloyd's Register Foundation

NWC875-0128