Sld Rpt. 25823

Rpt. 5a.

REPORT ON BOILERS.

No. 7990
THU. JUN. 26. 1913
Received at London Office

Date of writing Report 24.6.13 191 When handed in at Local Office 25th June 1913 Port of Middlesbrough

No. in Reg. Book. Survey held at Stockton-on-Tees Date, First Survey 24th May Last Survey ~~30th June~~ 25 August 1913 (Number of Visits 8) Gross 4850 Tons Net 2989

on the Steel S.S. "Shirley" (S.S. No. 276)

Master Hopley Built at Sunderland By whom built Sunderland Shipbr Ld When built 1913.

Engines made at Sunderland By whom made J. Dickinson & Sons Ld. When made 1913

Donkey Boilers made at Stockton By whom made Lesson Riley Bros Ld (No. 4486) When made 1913

Registered Horse Power Owners Moulder, Meddleton & Ord Port belonging to London

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY OR~~ DONKEY.—Manufacturers of Steel John Spencer & Sons

(Letter for record (a)) **Total Heating Surface of Boilers** 1330 ☐ft Is forced draft fitted no **No. and Description of Boilers** One single ended **Working Pressure** 100 Tested by hydraulic pressure to 200 Date of test 20.6.13

No. of Certificate 5097 Can each boiler be worked separately ✓ **Area of fire grate in each boiler** 37 ☐ft No. and Description of safety valves to each boiler Two spring loaded Area of each valve 6.5 ☐" Pressure to which they are adjusted 103 lbs

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 10" (on main deck) ~~Mean~~ Inside dia. of boilers 12'-0" Length 10'-0"

Material of shell plates steel Thickness 21/32 Range of tensile strength 28-32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams 2 R lap long. seams 2 B - 2 Riv 3 Rivets per pitch Diameter of rivet holes in long. seams 27/32 Pitch of rivets 4½"

~~Lap of plates or~~ width of butt straps 9 × 21/32 Per centages of strength of longitudinal joint rivets 85.2 plate 81.2 Working pressure of shell by rules 105 Size of manhole in shell 19" × 15" Size of compensating ring 9½" × 13/16 Mc Neil **No. and Description of Furnaces in each boiler** 2 plain Material steel Outside diameter 42 Length of plain part top 74½ bottom 104½ Thickness of plates crown 9/8" bottom ~~11 mean~~

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 134 Combustion chamber plates: Material steel Thickness: Sides 9/16" Back 5/8" Top 9/16" Bottom 7/8" Pitch of stays to ditto: Sides 11¼" × 9" Back 9½" × 10" Top 11" × 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 105 Material of stays iron ~~Diameter~~ area at smallest part 1.73 Area supported by each stay 101.2 Working pressure by rules 104 End plates in steam space: Material steel Thickness 13/16" Pitch of stays 19" × 16" How are stays secured nuts & 8 × 3/16 washers Working pressure by rules 103 Material of stays iron ~~Diameter~~ area at smallest part 4.57 Area supported by each stay 304 Working pressure by rules 124 Material of Front plates at bottom steel Thickness 13/16 Material of Lower back plate steel Thickness 13/16 Greatest pitch of stays 14½" × 9½" Working pressure of plate by rules 108 ~~Diameter~~ of tubes 3¼" Pitch of tubes 4½" × 4⅜" Material of tube plates steel Thickness: Front 13/16" Back ¾" Mean pitch of stays 10¼" Pitch across wide water spaces 14¼" Working pressures by rules 106 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 6½" × 1¼" Length as per rule 27" Distance apart 11 Number and pitch of Stays in each 2 @ 9" Working pressure by rules 106 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

SURVEY NO. 646 REQUEST ATTACHED

FOR RILEY BROS. (BOILERMAKERS) LIMITED. SECRETARY.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops - - May 24 28. June 4.7.11.14.18.20. During erection on board vessel - - - Aug 15.22.25.

Is the approved plan of boiler forwarded herewith yes

Total No. of visits ~~8~~ 11

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey, is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results. It has been securely fitted on board. Mountings fitted & safety valves adjusted under steam.

Survey Fee ... ... £ 4-9-0 When applied for, MONTHLY A/c. 191

Travelling Expenses (if any) £ : : When received, 191

Wm Morrison & William Butler

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

Committee's Minute FRI. SEP. 5 - 1913

Assigned see Minute on Sld Rpt 25823

W768-6019

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