

Slid. No. 24561

No. 6347

WED. 6 III 1910
THU. 18 AUG 1910

REPORT ON BOILERS.

Received at London Office

Rpt. 5a.

Date of writing Report

19

When handed in at Local Office

17th July 1910 Port of *Middlesbrough*

No. in

Survey held at *Stockton*

Date, First Survey

21st Feb'y

Last Survey

20th June 1910

Reg. Book.

on the *Donkey Boiler No. 4113 for Messrs J. L. Thompson & Sons SS. No. 473*

Number of Visits

13

Master

Dale

Built at

Sunderland

By whom built

J. L. Thompson & Sons Ltd

When built

1910

Engines made at

Stockton

By whom made

Messrs Blair & Coy Ltd

when made

1910

Boilers made at

Stockton

By whom made

Riley Bros Ltd

when made

1910

Registered Horse Power

Owners

Mercantile Steamers

Port belonging to

London

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

(Letter for record *(5)*) Total Heating Surface of Boilers *840 sq ft* Is forced draft fitted *No* No. and Description of

Boilers *One S. C. Cyl. Mult.* Working Pressure *160 lbs* Tested by hydraulic pressure to *320 lbs* Date of test *20.6.10*

No. of Certificate *4448* Can each boiler be worked separately Area of fire grate in each boiler *29.4 sq ft* No. and Description of

safety valves to each boiler *One double spring loaded* Area of each valve *3.98 sq in* Pressure to which they are adjusted *164 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 *16"* Mean dia. of boilers *10'-0"* Length *10'-8"*

Material of shell plates *Steel* Thickness *25/32"* Range of tensile strength *28-32* Are the shell plates welded or flanged *No*

Descrip. of riveting: cir. seams *S.L. Lap* long. seams *S.S. 5 Rivets* Diameter of rivet holes in long. seams *15/16"* Pitch of rivets *7 1/4"*

Lap of plates or width of butt straps *14 1/2"* Per centages of strength of longitudinal joint rivets *90.* Working pressure of shell by

rules *168 lbs* Size of manhole in shell *16 x 12"* Size of compensating ring *7 1/2 x 25/32"* No. and Description of Furnaces in each

boiler *Two plain* Material *Steel* Outside diameter *3'-0"* Length of plain part top *6'-6 1/2"* Thickness of plates crown *3/4"* bottom *1/2"*

Description of longitudinal joint *welded* No. of strengthening rings Working pressure of furnace by the rules *189 lbs* Combustion chamber

plates: Material *Steel* Thickness: Sides *9/16"* Back *9/16"* Top *17/32"* Bottom *13/16"* Pitch of stays to ditto: Sides *8 x 7"* Back *8 1/4 x 7 3/4"*

Top *7 x 7"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *170 lbs* Material of stays *Steel* Diameter at

smallest part *1 3/8"* Area supported by each stay *64"* Working pressure by rules *135* End plates in steam space: Material *Steel* Thickness *7/8" + 25/32"*

Pitch of stays *18 x 14"* How are stays secured *S.L. + N.* Working pressure by rules *276* Material of stays *Steel* Diameter at smallest part *2.41"*

Area supported by each stay *276.5"* Working pressure by rules *172* Material of Front plates at bottom *Steel* Thickness *7/8"* Material of

Lower back plate *Steel* Thickness *7/8"* Greatest pitch of stays *12 x 7 3/4"* Working pressure of plate by rules *258* Diameter of tubes *3 1/4"*

Pitch of tubes *4 3/4 x 4 1/2"* Material of tube plates *Steel* Thickness: Front *7/8"* Back *5/8"* Mean pitch of stays *9 1/4"* Pitch across wide

water spaces *13"* Working pressures by rules *174 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of

girder at centre *7 x 1 1/4"* Length as per rule *2'-3"* Distance apart *7"* Number and pitch of Stays in each *207"*

Working pressure by rules *173 lbs* 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

FOR RILEY BROS. (BOILERMAKERS) LIMITED, Manufacturer.

The foregoing is a correct description, SECRETARY

Dates During progress of work in shops - - - 1910. *Feb'y 21, 24, 28, Mar. 2, 10, 18, May 3, 10, 26, June 1, 7, 16, 20, May 11, 13, Aug 8, 9.* Is the approved plan of boiler forwarded herewith *Yes*

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

This boiler had been constructed under Special Survey, is of good material and workmanship, and has been tested by hydraulic pressure with satisfactory results. This Donkey Boiler has been mounted, securely fitted on board, & safety valves adjusted under steam to above pressure.

Survey Fee ... £ *2-16-0* When applied for. *19*

Travelling Expenses (if any) £ *0* When received. *19*

William Butler W Morrison & Co
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute **FRI. 19 AUG 1910**

Assigned *See Minute or Report.*

