

Rpt. 5a.

# REPORT ON BOILERS.

No. 9381

Received at London Office TUE. 20 JUN. 1916

Date of writing Report 1916 When handed in at Local Office 17.6.16 1916 Port of Middlesbrough

No. in Survey held at Stockton-on-Tees Date, First Survey 1916 Mar 22 Last Survey June 9 1916

Reg. Book. on the S.S. Saragossa (S.S. No. 231) (Number of Visits 4) Gross 3541 Tons Net 2158

Master Wm. Daniel Built at Sunderland By whom built J. Blumer & Co When built 1916

Engines made at Sunderland By whom made North Eastern Marine Engineers When made 1916

Boilers made at Stockton By whom made Messrs Riley Bros Ltd (No. 4819) When made 1916

Registered Horse Power Owners Schalefeld, H. Schalefeld & Son Port belonging to Newcastle

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

(Letter for record (S)) Total Heating Surface of Boilers 890 sq ft Is forced draft fitted No No. and Description of Boilers One single ended Working Pressure 120 Tested by hydraulic pressure to 240 Date of test 9.6.16

No. of Certificate 5652 Can each boiler be worked separately Yes Area of fire grate in each boiler 29 sq ft No. and Description of safety valves to each boiler 2 direct spring Area of each valve 5.939 sq in Pressure to which they are adjusted 120 lbs

Are they fitted with casing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No see sketch

Smallest distance between boilers or uptakes and bunkers or woodwork on deck Mean dia. of boilers 10'-0" Length 10'-0"

Material of shell plates steel Thickness 5/8" 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 Diameter of rivet holes in long. seams 15/16" Pitch of rivets 5 1/2"

Lap of plates or width of butt straps 9 x 19/32" Per centages of strength of longitudinal joint rivets 94.4 Working pressure of shell by rules 122 Size of manhole in shell 19" x 15" Size of compensating ring 7 x 7/8" No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 36" Length of plain part top 74 3/8" Thickness of plates crown 19/32 bottom 10 1/2" bottom 18 mm

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 135 Combustion chamber plates: Material steel Thickness: Sides 19/32" Back 19/32" Top 19/32" Bottom 3/4" Pitch of stays to ditto: Sides 10" x 9" Back 10" x 10"

Top 10" x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 122 Material of stays steel Diameter at smallest part 1.73 Area supported by each stay 100 Working pressure by rules 138 End plates in steam space: Material steel Thickness 7/8"

Pitch of stays 15 1/2" to tubes How are stays secured nuts & washers Working pressure by rules 120 Material of stays steel Diameter at smallest part 4.11

Area supported by each stay 322 Working pressure by rules 133 Material of Front plates at bottom steel Thickness 7/8" Material of Lower back plate steel Thickness 7/8" Greatest pitch of stays 13" x 10" Working pressure of plate by rules 197 Diameter of tubes 3 1/2"

Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates steel Thickness: Front 7/8" Back 5/8" Mean pitch of stays 9 1/2" Pitch across wide water spaces 13 1/2" Working pressures by rules 140 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 7" x 1 1/2" Length as per rule 28" Distance apart 10" Number and pitch of Stays in each 209"

Working pressure by rules 122 Superheater or Steam chest: how connected to boiler none Can the superheater be shut off and the boiler worked separately

holes Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet 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 casing gear

FOR The foregoing is a correct description,  
**RILEY BROS. (BOILERMAKERS) LIMITED** Manufacturer.

Dates of Survey During progress of work in shops 1916 Mar 22 Apr 5-27 May 1-8 12-18 24-26 30 Jun 2 5 7 9 Is the approved plan of boiler forwarded herewith yes

while building During erection on board vessel Sep 19 29 Oct 5 Total No. of visits 14 17

**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

Survey Fee ... £ 2-19-0 When applied for Monthly etc

Travelling Expenses (if any) £ : : When received, 1916

Wm Morrison & Co  
 Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 27. OCT. 1916

Committee's Minute  
 Assigned

