

REPORT ON BOILERS.

No. 8941

Received at London Office **MAY 12 1911**

Writing Report 11.5.15 191 When handed in at Local Office May 11 1915 Port of Middlesbrough
 No. in Survey held at Stockton-on-Tees Date, First Survey Febry 11 Last Survey May 11 1915
 reg. Book. on the (Number of Visits 1st) } Gross Tons }
 Net Tons }

aster Built at _____ By whom built _____ When built _____
 engines made at Gl. Yarmouth By whom made Messrs Grabtree & Co When made _____
 boilers made at Stockton By whom made Messrs Riley Bros Lim. (N: 4820) When made 1915
 registered Horse Power _____ Owners _____ Port belonging to _____

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

Letter for record (S) Total Heating Surface of Boilers 1370 sq ft Is forced draft fitted _____ No. and Description of _____

Boilers One single ended Working Pressure 130 Tested by hydraulic pressure to 260 Date of test 4.5.15

No. of Certificate 5511 Can each boiler be worked separately _____ Area of fire grate in each boiler 37.7 sq ft No. and Description of _____

Safety valves to each boiler _____ Area of each valve _____ Pressure to which they are adjusted _____

Are they fitted with easing gear _____ In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler _____

Smallest distance between boilers or uptakes and bunkers or woodwork _____ Mean dia. of boilers 12'-6" Length 10'-0"

Material of shell plates steel Thickness 47/64 Range of tensile strength 29 3/4 - 33 Are the shell plates welded or flanged no

Description of riveting: cir. seams 2 R. lap long. seams 2 B - 3 Riv Diameter of rivet holes in long. seams 15/16 Pitch of rivets 7 1/4"

Gap of plates or width of butt straps 13 3/4 x 1/2 Per centages of strength of longitudinal joint rivets 96.4 Working pressure of shell by plate 87.0

Number of tubes 132 Size of manhole in shell 19" x 15" Size of compensating ring 7 x 7/8 in No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 42" Length of plain part top 7 1/4" Thickness of plates crown 1/16" bottom 7/8 mean

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 149 Combustion chamber plates: Material steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 13/16" Pitch of stays to ditto: Sides 9 x 8 3/4" Back 9 x 8 3/4"

Top 9 x 9 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 135 Material of stays steel Diameter at smallest part 1.45 Area supported by each stay 78.75 Working pressure by rules 147 End plates in steam space: Material steel Thickness 7/8"

Pitch of stays 17 x 16 1/4 How are stays secured 6 x 7/8 washers Working pressure by rules 130 Material of stays steel Diameter at smallest part 3.67

Area supported by each stay 265 Working pressure by rules 144 Material of Front plates at bottom steel Thickness 13/16" Material of lower back plate steel Thickness 3/4" Greatest pitch of stays 14" x 9" Working pressure of plate by rules 141 Diameter of tubes 3 1/4"

Pitch of tubes 4 3/4 x 4 1/2 Material of tube plates steel Thickness: Front 13/16" Back 1/2" Mean pitch of stays 10 7/8" Pitch across wide water spaces 13 3/4 Working pressures by rules 184 Girders to Chamber tops: Material steel Depth and thickness of

roller at centre 7 1/2 x 1 1/4 Length as per rule 30" Distance apart 9" Number and pitch of Stays in each 209"

Working pressure by rules 132 Superheater or Steam chest: how connected to boiler none Can the superheater be shut off and the boiler worked separately _____

Boilers Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Boilers Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

Boilers 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 REQUEST NO. 1095 ATTACHED.

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

Dates of Survey: During progress of work in shops - 1915 Feb. 4, 9, 16, 19, Mar. 9, 17, 24, 29, 31, Apr. 9, 14, 22, 28 Is the approved plan of boiler forwarded herewith yes
 while building: During erection on board vessel - May 4 Total No. of visits 1st

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 ... £ 4-11-0 When applied for, 191...
 Travelling Expenses (if any) £ : : When received, 191...

FRI.-7.APR. 1916

Committee's Minute Assigned See minute Lon. fe. 78795

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



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