

Ud. 4. 8420.

pt. 5a.

REPORT ON BOILERS.

No. 8321.

WED. MAR. 4 - 1914

WED. MAY. 13

Received at London Office

Date of writing Report 2.3.14 1914 When handed in at Local Office 3/3/1914 Port of MIDDLESBRO'

No. in Survey held at Stockton-on-Tees Date, First Survey September 12. 1913 Last Survey February 23rd 1914.

Reg. Book. on the Steel screw steamer "Buresh" (Number of Visits 11.) Gross Tons (5.5. N^o 638) Net

Master Built at Stockton By whom built Richardson Duck & Co When built

Engines made at Stockton By whom made Messrs Blair & Co Lim^d When made

Boilers made at Stockton By whom made Messrs Riley Bros Ltd (N^o 4624) When made 1914

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 1120 sq ft Is forced draft fitted no No. and Description of Boilers One single ended Working Pressure 90 Tested by hydraulic pressure to 180 Date of test 23.2.14

No. of Certificate 5240 Can each boiler be worked separately yes Area of fire grate in each boiler 32.4 sq ft No. and Description of Safety valves to each boiler 2 direct spring Area of each valve 7.07 Pressure to which they are adjusted 95 lb

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 1-6" Inside Mean dia. of boilers 11'-0" Length 10'-0"

Material of shell plates steel Thickness 19/32 Range of tensile strength 29-33 Are the shell plates welded or flanged no

Description of riveting: cir. seams 2 R. lap long. seams 3 Riv lap Diameter of rivet holes in long. seams 15/16 Pitch of rivets 3 7/8

Gap of plates or width of butt straps 6 5/8 Per centages of strength of longitudinal joint rivets 76.5 plate 75.8 Working pressure of shell by rules 91

Size of manhole in shell 19" x 15" Size of compensating ring 7 x 1 1/2 No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 40 Length of plain part top 75 3/4 Thickness of plates crown 5/16 bottom 10 3/4

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 130 Combustion chamber plates: Material steel Thickness: Sides 1/2 Back 17/32 Top 1/2 Bottom 11/16 Pitch of stays to ditto: Sides 10" x 8" Back 9" x 10"

Top 10" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 93 Material of stays steel Diameter at smallest part 1.19 Area supported by each stay 90 Working pressure by rules 106 End plates in steam space: Material steel Thickness 13/16

Pitch of stays 16" x 19 1/2 to tubes 7 x 1/2 washers Working pressure by rules 90 Material of stays steel Diameter at smallest part 3.67

Area supported by each stay 363 Working pressure by rules 105 Material of Front plates at bottom steel Thickness 13/16 Material of lower back plate steel Thickness 13/16 Greatest pitch of stays 13 1/2 x 10 Working pressure of plate by rules 162 Diameter of tubes 3 1/4

Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates steel Thickness: Front 13/16 Back 9/16 Mean pitch of stays 10 3/8 Pitch across wide water spaces 13 1/2 Working pressures by rules 105 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 6 1/4 x 1 1/4 Length as per rule 28 Distance apart 10 Number and pitch of Stays in each 2 @ 8"

Working pressure by rules 92 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 rivets

Boles 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 REQUEST NO. 809 ATTACHED.

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

Manufacturer.

Dates of Survey During progress of work in shops 1913. Sep. 12. 1914. Jan. 8-9-30. Feb. 4-6-11-13-17. Is the approved plan of boiler forwarded herewith yes

while building During erection on board vessel 1914. Feb. 20-23. Total No. of visits 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. The boiler is to be fitted on board at this port. This boiler has now been satisfactorily secured on board, examined under steam and safety valves adjusted WMA. 2.5.14

Survey Fee ... £ 3-15-0 When applied for, MONTHLY A/B 191. Travelling Expenses (if any) £ : : When received, 191.

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

FRI. MAY. 15. 1914

Committee's Minute Assigned See minute on 2 E. 1st attached

