

Rpt. 5a.

REPORT ON BOILERS.

No. 9392

Received at London Office FRI. JUN. 30. 1916

Date of writing Report 12th Jan 1917 When handed in at Local Office 28.6.16 191 Port of Middlesbrough
 No. in Survey held at Stockton-on-Tees Date, First Survey 1916 Nov. 12 Last Survey June 23rd 1916
 Reg. Book. on the S.S. "Clan Mackay" (Number of Visits 12) Tons Gross 6580
(S.S.N. 229) Net 4190
 Master Built at Newcastle By whom built Northumbland S.B. Co When built 1
 Engines made at Donkey By whom made _____ When made _____
 Boilers made at Stockton By whom made Messrs Riley Bros (N. 4850) When made 1916 1917
 Registered Horse Power _____ Owners Cayzer & Co Port belonging to Glasgow

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

(Letter for record (S)) Total Heating Surface of Boilers 1200 sq 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 23.6.16

No. of Certificate 5657 Can each boiler be worked separately ✓ Area of fire grate in each boiler 33 sq ft No. and Description of safety valves to each boiler Two, Spring Area of each valve 4.9 sq in Pressure to which they are adjusted 100 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 2 ft Inside dia. of boilers 12'-0" Length 9'-0"

Material of shell plates steel Thickness 19/32 Range of tensile strength 29 3/4 - 33 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 3/8" Per centages of strength of longitudinal joint rivets 95.0 Working pressure of shell by rules 101 plate 82.9

Size of manhole in shell 19" x 15" Size of compensating ring 7 x 19/16" 9/16" rivet No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 42" Length of plain part top 63 3/4 Thickness of plates crown 3/8 bottom 3/8

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 109 Combustion chamber plates: Material steel Thickness: Sides 3/8" Back 3/8" Top 3/8" Bottom 3/4" Pitch of stays to ditto: Sides 10" x 8" Back 10" x 9 1/2"

Top 11" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 142 Material of stays steel Diameter at smallest part 1.19 Area supported by each stay 95 Working pressure by rules 100 End plates in steam space: Material steel Thickness 13/16"

Pitch of stays 19 x 16 How are stays secured nuts Working pressure by rules 101 Material of stays steel Diameter at smallest part 2.87

Area supported by each stay 304 Working pressure by rules 100 Material of Front plates at bottom steel Thickness 13/16" Material of Lower back plate steel Thickness 13/16" Greatest pitch of stays 14 1/2" x 9 1/2" Working pressure of plate by rules 145 Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 3/8" Material of tube plates steel Thickness: Front 13/16" Back 5/8" Mean pitch of stays 11 1/2" Pitch across wide water spaces 14 1/2" Working pressures by rules 113 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 7 x 15" Length as per rule 27" Distance apart 11" Number and pitch of Stays in each 2 @ 8"

Working pressure by rules 104 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 REQUEST
No. 1151. ATTACHED.

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

Manufacturer.

Dates of Survey 1916 Nov. 12 Dec. 2. 1916 Jan. 15 - Mar 30 May 24-30 Is the approved plan of boiler forwarded herewith yes
 while building During progress of work in shops - - -
During erection on board vessel - - - Jun 2. 7. 9. 14. 20. 23.
 Total No. of visits 12

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 ... £ 4-0-0 When applied for, Monthly a/c 191...
 Travelling Expenses (if any) £ : : When received, 191...

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

Committee's Minute FRI. 19. JAN. 1917

Assigned

