

Rpt. 5a.

REPORT ON BOILERS.

No. 4679

WED. DEC. 11. 1912

Received at London Office

Date of writing Report 9.12.12 When handed in at Local Office 10.12.12 Port of MIDDLESBROUGH-Tees

Location of Survey No. in Survey held at Stockton-on-Tees Date, First Survey 10.12.12 Last Survey 4th Dec. 1912

Reg. Book. on the S.S. S.S. "CLAN MACKELLAR" (S.S. No 202) Tons } Gross 4925 Net 3062

Master Built at Newcastle By whom built Northumberland S.B.Co When built 1913

Rivets Engines made at By whom made When made

Plates Boilers made at Stockton By whom made Truman Riley Bros (No. 4410) When made

Registered Horse Power Owners Cape Irvine & Co. Port belonging to Glasgow

MULTITUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY. - Manufacturers of Steel J. Spencer & Sons

Letter for record (r) Total Heating Surface of Boilers 1090 sq ft Is forced draft fitted No No. and Description of Boilers One single ended Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 27.11.12

No. of Certificate 4987 Can each boiler be worked separately Area of fire grate in each boiler 31 sq ft No. and Description of safety valves to each boiler 2 Direct spring Area of each valve 3.14 sq in Pressure to which they are adjusted 180 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 on deck Inside Mean dia. of boilers 11'-0" Length 10'-6"

Material of shell plates steel Thickness 3/32 Range of tensile strength 29-33 Are the shell plates welded or flanged No

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

Width of butt straps 15 1/2 x 3/32 Per centages of strength of longitudinal joint rivets 86.5 Working pressure of shell by plate 85.7

No. of manhole in shell 199 Size of manhole in shell 16" x 12" Size of compensating ring 7 x 1 No. 911 No. and Description of Furnaces in each boiler 2 Brighton Material steel Outside diameter 40 1/2" Length of plain part top Working pressure of furnace by the rules 220 Combustion chamber bottom Thickness of plates crown 9/16 bottom 7/16

Description of longitudinal joint Weld No. of strengthening rings Working pressure of furnace by the rules 220 Combustion chamber

Material steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 13/16 Pitch of stays to ditto: Sides 7 1/2 x 7 1/2 Back 7 1/2 x 7 1/2

Stays are fitted with nuts or riveted heads nuts Working pressure by rules 218 Material of stays iron Diameter at smallest part 2.07 Area supported by each stay 59 Working pressure by rules 263 End plates in steam space: Material steel Thickness 1"

How are stays secured nuts Working pressure by rules 191 Material of stays steel Diameter at smallest part 4.57

Area supported by each stay 225 Working pressure by rules 211 Material of Front plates at bottom steel Thickness 1" Material of lower back plate steel Thickness 1" Greatest pitch of stays 20 1/2 x 7 1/2 Working pressure of plate by rules 180 Diameter of tubes 3 1/2"

Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates steel Thickness: Front 1" Back 3/4" Mean pitch of stays 10 3/8" Pitch across wide water spaces 14 1/2" Working pressures by rules 189 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8 x 14" Length as per rule 28" Distance apart 7 1/2" Number and pitch of Stays in each 20 @ 7 1/2"

Working pressure by rules 204 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

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

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 The foregoing is a correct description,

A. Lund Manufacturer.

Dates of Survey During progress of work in shops 1912. Dec. 8. 9. 10. 11. 12. Is the approved plan of boiler forwarded herewith yes Plan returned 17/12/12

while building During erection on board vessel 19. 20. 21. 27. Dec. 4. Total No. of visits 15 Return for duplicate 1/12

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

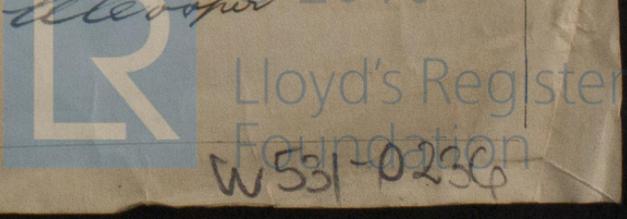
Survey Fee ... £ 3-13-0 When applied for, 191

Travelling Expenses (if any) £ : : When received, 191

MONTHLY A/c. NO. 529 REQUEST ATTACHED.

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

Committee's Minute FRI. MAR. 28. 1913



Lloyd's Register Foundation W531-0236