

REPORT ON BOILERS.

No. 38748
WED. 4 JUN. 1919

Received at London Office

When handed in at Local Office

Port of Glasgow

No. in Survey held at

No. in Book.

Survey held at Penrith
on the S.S. "Helvetia" ex "War Lured"

Date, First Survey

25/4/18

Last Survey

11th March 1919

(Number of Visits 13)

Gross Tons

Net Tons

Boiler

Built at Glasgow

By whom built Lloyd's Royal (G.B.) Ltd. No. 9

When built 1919

Engines made at Glasgow

By whom made North British Diesel Eng. Co. (18) When made 1919

Boilers made at Penrith

By whom made Tom Simons & Co. Ltd. (636 B) When made 1919

Registered Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Steel Coy of Scotland*Letter for record (S) Total Heating Surface of Boilers 2986 $\frac{1}{2}$ Is forced draft fitted No. and Description of

Boilers 2 Single ended Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 11/3/19

No. of Certificate 14652 Can each boiler be worked separately Area of fire grate in each boiler 48.56 $\frac{1}{2}$ 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 3' 0" Length 10' 6"

Material of shell plates Steel Thickness $\frac{1}{16}$ Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged NoDescription of riveting: cir. seams Lap double long. seams Butte tube Diameter of rivet holes in long. seams $\frac{1}{8}$ " Pitch of rivets 8"

Rods 14/10/18 Rivets 56.9 Working pressure of shell by

Propeller 6' 12" 18 of plates or width of butt straps $\frac{1}{16}$ " Per centages of strength of longitudinal joint plate 50.9Bolts 4.5.19 Size of manhole in shell 20 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ " Size of compensating ring 31 $\frac{3}{4}$ " x 27 $\frac{3}{4}$ " x 1 $\frac{1}{16}$ " No. and Description of Furnaces in eachBoiler 3 Deighton Material Steel Outside diameter 41 $\frac{1}{4}$ " Length of plain part top Thickness of plates crown $\frac{1}{2}$ "

Description of longitudinal joint weld No. of strengthening rings Working pressure of furnace by the rules 182 Combustion chamber

Notes: Material Steel Thickness: Sides $\frac{5}{8}$ " Back $\frac{5}{8}$ " Top $\frac{5}{8}$ " Bottom $\frac{11}{16}$ spiner plate Pitch of stays to ditto: Sides 8 $\frac{3}{4}$ " x 8 $\frac{1}{2}$ " Back 8 $\frac{3}{4}$ " x 8 $\frac{1}{2}$ "p 8 $\frac{3}{4}$ " x 8 $\frac{1}{2}$ " If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181 Material of stays Steel Diameter atSmallest part 7.3" Area supported by each stay 74" Working pressure by rules 188 End plates in steam space: Material Steel Thickness $\frac{1}{4}$ "Pitch of stays 22 $\frac{3}{4}$ " x 17 $\frac{1}{2}$ " How are stays secured Dr W 8 $\frac{3}{4}$ " Working pressure by rules 188 Material of stays Steel Diameter at smallest part 7.24"

Area supported by each stay 395" Working pressure by rules 190 Material of Front plates at bottom Steel Thickness 1" Material of

Lower back plate Steel Thickness $\frac{13}{16}$ " Greatest pitch of stays 13" Working pressure of plate by rules 184 Diameter of tubes 3 $\frac{1}{4}$ "Pitch of tubes 4 $\frac{3}{16}$ " x 4 $\frac{1}{2}$ " Material of tube plates Steel Thickness: Front 1" Back $\frac{3}{4}$ " Mean pitch of stays 11 $\frac{5}{8}$ " Pitch across wide

Water spaces 14" Working pressures by rules 182 Girders to Chamber tops: Material Steel Depth and thickness of

Rider at centre 8 $\frac{5}{8}$ " x $\frac{11}{16}$ " Length as per rule 30 $\frac{1}{2}$ " Distance apart 8 $\frac{3}{4}$ " Number and pitch of Stays in each (2) 8 $\frac{1}{2}$ "

Working pressure by rules 186 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

es 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

Survey Request Form

No. 2205 attached

The foregoing is a correct description,
FOR WM. SIMONS & CO., LTD.

J. McKeand Manufacturer.

Dates During progress of 1918 Apr. 25. May 6. 30. Sept. 19. Oct. 7. 30. Dec. 16. 19. 24.
Survey work in shops - - - 1919 Jan. 16. 20. Feb. 26. Mar. 11.
While During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith yes

Total No. of visits 13

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have been built under special survey the materials and workmanship are of good description. These boilers have now been fitted on board and satisfactorily tried under steam.

Survey Fee ... £ 8 : 4 : 6

When applied for, 3. 6. 1919

Travelling Expenses (if any) £ :

When received, 11. 6. 1919

Register of Shipping.

A. McKeand J. McKeand
Engineer-Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 3 JUN 1919

Assigned See attached machinery report.