

REPORT ON BOILERS.

No. 8027

22 APR 1918

Received at London Office

Date of writing Report 24th Oct 1918 When handed in at Local Office 1918 Port of Belfast

No. in Survey held at Belfast Date, First Survey 3rd June 1918 Last Survey 18th Oct 1918

Req. Book. B class Standard S.S. 563 (T.S.S. NERBUDDA) (Number of Visits 13) Gross Tons 1978 Net Tons 1978

Master Glasgow Built at Glasgow By whom built Barclay Curle & Co Ltd (No 563) When built 1918

Engines made at Belfast By whom made Warkman Clark & Co L^{td} When made 1918

Boilers made at Belfast By whom made Warkman Clark & Co L^{td} When made 1918

Registered Horse Power British India Steam Navigation Co Ltd Port belonging to Glasgow X

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Stewart & Lugg

Letter for record P Total Heating Surface of Boilers 17079 sq ft Is forced draft fitted Yes No. and Description of Boilers 3 Double End Cylinders Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 18-10-18

No. of Certificate 533 Can each boiler be worked separately Yes Area of fire grate in each boiler 146.6 sq ft No. and Description of safety valves to each boiler 3 - Wood Spring Area of each valve 14.18 sq in Pressure to which they are adjusted 200 lbs

Are they fitted with easing gear Yes 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 1-6" Mean dia. of boilers 16'-3" Length 20'-6"

Material of shell plates Steel Thickness 1 1/32" Range of tensile strength 28-32 Tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Lap Dr P. long. seams Butt Lap Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 10 1/2"

Gap of plates or width of butt straps 22 1/2" Per centages of strength of longitudinal joint 85.2 Working pressure of shell by rules 85.7

Size of manhole in shell 16" x 12" Size of compensating ring Mc Keils No. and Description of Furnaces in each boiler 8 - Repton Material Steel Outside diameter 44 1/2" Length of plain part 4' Thickness of plates 7 1/2" crown 3 1/2" bottom

Description of longitudinal joint Weld No. of strengthening rings ✓ Working pressure of furnace by the rules 213 lbs Combustion chamber

Material Steel Thickness: Sides 7/16" Back ✓ Top 1/4" Bottom 1/4" Pitch of stays to ditto: Sides 9 1/2" x 8 1/2" Back ✓

Stays are fitted with nuts or riveted heads Nuts Working pressure by rules 211 lbs Material of stays Steel Area at smallest part 2076 sq in supported by each stay 778 sq in Working pressure by rules 241 lbs Material of plates in steam space: Material Steel Thickness 1 1/32"

How are stays secured Butt Working pressure by rules 201 lbs Material of stays Steel Area at smallest part 706 sq in

Area supported by each stay 336 sq in Working pressure by rules 218 lbs Material of Front plates at bottom Steel Thickness 1" Material of lower back plate ✓ Thickness ✓ Greatest pitch of stays ✓ Working pressure of plate by rules ✓ Diameter of tubes 2 1/2"

Material of tube plates Steel Thickness: Front 1/4" Back 1/4" Mean pitch of stays 1 1/4" x 7 1/4" Pitch across wide

Working pressures by rules 203 lbs Girders to Chamber tops: Material Steel Depth and thickness of

Length as per rule 5 1/2" Distance apart 8 1/2" x 7" Number and pitch of Stays in each 6 - 8 1/2" x 6 3/4"

Working pressure by rules 235 lbs Steam dome: description of joint to shell ✓ % of strength of joint

Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓

Working pressure of shell by rules ✓ Crown plates ✓ Thickness ✓ How stayed ✓

PERHEATER. Type ✓ Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler ✓

Pressure to which each is adjusted ✓ Is Easing Gear fitted ✓

The foregoing is a correct description,
FOR WORKMAN, CLARK & CO., LIMITED.
M.A. Bell Manufacturer.

Is the approved plan of boiler forwarded herewith No

Total No. of visits 13

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

These boilers have been constructed under Special Survey, and in accordance with the Rules, and instructions of the Controller of Shipping. They have been sent to Glasgow to be fitted on board No 563 vessel, building by Barclay Curle & Co L^{td}

These boilers have now been satisfactorily fitted to the vessel & tried under steam by Barclay Curle & Co L^{td}

Survey Fee £ 37/17/3 When applied for, 1918

When received, 1918

Committee's Minute GLASGOW 29 APR 1919

See Glasgow Report No. 38689

R. S. O'Connell
Engineer Surveyor to Lloyd's Register of Shipping.

