

REPORT ON BOILERS.

No. 34565

WED. NOV. 18. 1914

Received at London Office

Date of writing Report 1914 When handed in at Local Office 1914 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 19/12/13 Last Survey 10/1/14 1914

Reg. Book. on the S.S. Maharada (Number of Visits 37) Gross Tons 7196 Net Tons 4522

Master Built at Glasgow By whom built C. Connell & Co (No 361) When built 1914

Engines made at Newcastle-on-Tyne By whom made Parsons Marine Steam Turbine Co When made 1914

Boilers made at Glasgow By whom made D. Rowan & Co (No 612) When made 1914

Registered Horse Power 729 Owners G. J. Brocklebank & Co Port belonging to Liverpool

MULTITUBULAR BOILERS — MAIN, AUXILIARY OR DONKEY — Manufacturers of Steel *Steel Company of Scotland Ltd*

Letter for record (7) Total Heating Surface of Boilers 2195 sq ft Is forced draft fitted No. and Description of Boilers 1 Single ended cylindrical Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 7/9/14

No. of Certificate 12859 Can each boiler be worked separately Area of fire grate in each boiler 49 1/2 sq ft No. and Description of safety valves to each boiler 1 pair direct spring Area of each valve 4.9 sq in Pressure to which they are adjusted 180 lbs

Are they fitted with casing 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 2' 0" Mean dia. of boilers 15' 0" Length 10 - 7 1/2'

Material of shell plates *Steel* Thickness 1 3/32 Range of tensile strength 28-32 Are the shell plates welded or flanged

Description of riveting: cir. seams *lap double* long. seams *butt triple* Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 8 3/8"

Gap of plates or width of butt straps 19 1/2" Per centages of strength of longitudinal joint rivets 93.2 plate 85.25 Working pressure of shell by rules 182 Size of manhole in shell 16" x 12" Size of compensating ring 2' 6 1/2" x 2' 10 1/2" No. and Description of Furnaces in each boiler 3 Morrison's Material *steel* Outside diameter 48 3/4" Length of plain part top bottom Thickness of plates crown 19" bottom 32"

Description of longitudinal joint *welded* No. of strengthening rings Working pressure of furnace by the rules 196 Combustion chamber plates: Material *steel* Thickness: Sides 21" Back 39" Top 21" Bottom 28" Pitch of stays to ditto: Sides 8 1/2" x 9 1/2" Back 8 1/2" x 8 1/2"

Top 9 1/2" x 8 1/2" If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules 185 Material of stays *iron* Diameter at smallest part 2.07 Area supported by each stay 80 sq in Working pressure by rules 194 End plates in steam space: Material *steel* Thickness 1 3/8"

Pitch of stays 20 1/2" x 22 1/2" How are stays secured *2 nuts* Working pressure by rules 183 Material of stays *steel* Diameter at smallest part 8.29

Area supported by each stay 460 Working pressure by rules 180 Material of Front plates at bottom *steel* Thickness 61/64 Material of lower back plate *steel* Thickness 13/16" Greatest pitch of stays 13 1/8" Working pressure of plate by rules 187 Diameter of tubes 3 1/4"

Pitch of tubes 4 3/8" x 4 3/8" Material of tube plates *steel* Thickness: Front 61/64 Back 39/32 Mean pitch of stays 9 3/32 Pitch across wide water spaces 13 1/2" Working pressures by rules 187, 190 Girders to Chamber tops: Material *steel* Depth and thickness of girder at centre 8 1/4" x 4 1/2" double Length as per rule 2' 6 3/4" Distance apart 8 1/4" Number and pitch of Stays in each (2) 9 5/8"

Working pressure by rules 188 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 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 casing gear

The foregoing is a correct description,
for David Rowan & Co. Manufacturer.

Dates of Survey: During progress of work in shops - - - See accompanying machinery Report. Is the approved plan of boiler forwarded herewith yes

while building: During erection on board vessel - - - Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under special survey, the materials & workmanship are good*

Survey Fee ... £ : : } When applied for, 191

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

Committee's Minute **GLASGOW** 17 NOV. 1914

Assigned *See minute on accompanying machinery report*

A. M. G. Leach
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

