

REPORT ON BOILERS.

No. 16239

Received at London Office

WED. MAY. 22. 1912

Date of writing Report

19

When handed in at Local Office

13/5/12 Port of Greenock

No. in Survey held at
Reg. Book.

Greenock.

Date, First Survey 22nd Dec. 1910. Last Survey9th May 1912.

(Number of Visits 87.)

Gross 11120.

on the TWIN SCREW STEAMER "BELTANA."

Tons Net 7055.

Master *Simonds*Built at *Greenock*By whom built *Caith 16th Lin.*

When built 1912.

Engines made at *Greenock*

By whom made

Caith 16th Lin.

when made

1912.

Boilers made at *Greenock*

By whom made

Caith 16th Lin.

when made

1912.

Registered Horse Power

Owners *Peninsular & Oriental S. N. Coy.*

Port belonging to

*Greenock*MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *D. Colville & Sons*(Letter for record *S.*)Total Heating Surface of Boilers 6264 sq. ft. Is forced draft fitted *Yes.*

No. and Description of

Boilers 2: Single Cylinder multi-
PARTICULARS OF SINGLE END BOILERS.

Working Pressure 215 lb. Tested by hydraulic pressure to 430 lb. Date of test 8/12/11.

No. of Certificate 1034 Can each boiler be worked separately *Yes.*

Area of fire grate in each boiler 73.5 sq. ft. No. and Description of

safety valves to each boiler 2: Direct Spring Area of each valve 8.29 sq. in. Pressure to which they are adjusted 220 lb.

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 about 14". Mean dia. of boilers 16.6". Length 11.8".

Material of shell plates *Steel* Thickness 1 3/32". Range of tensile strength 30 tons per sq. in. Are the shell plates welded or flanged *No.*Descrip. of riveting: cir. seams *Lap Double*, long. seams *Butt* Diameter of rivet holes in long. seams 1 3/32". Pitch of rivets 10 1/2". 5 1/4".

Gap of plates or width of butt straps 2 1/4". Per centages of strength of longitudinal joint rivets 95.2. Working pressure of shell by plate 83.6.

rules 25.3 lbs. Size of manhole in shell 16" x 12". Size of compensating ring 8 1/4" x 1 3/32". No. and Description of Furnaces in each

boiler 4: *Mousson* Material *Steel* Outside diameter 42 1/4". Length of plain part top 8.2". Thickness of plates crown 5". bottom 8".Description of longitudinal joint *Weld.* No. of strengthening rings *None* Working pressure of furnace by the rules 233 lbs. Combustion chamberplates: Material *Steel* Thickness: Sides 5". Back 5". Top 4 3/4". Bottom 1". Pitch of stays to ditto: Sides 7 1/2" x 8". Back 7 1/4" x 7 1/4".Top 8" x 8 1/2" stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules 218 lbs. Material of stays *Steel* Diameter atsmallest part 1 1/2". Area supported by each stay 68". Working pressure by rules 234 lbs. End plates in steam space: Material *Steel* Thickness 1 1/2".Pitch of stays 18 1/4" x 16 1/2" How are stays secured *By nuts & washers* Working pressure by rules 234 lbs. Material of stays *Steel* Diameter at smallest part 3 1/16".Area supported by each stay 309". Working pressure by rules 264 lbs. Material of Front plates at bottom *Steel* Thickness 1 1/8". Material ofLower back plate *Steel* Thickness 1 1/8". Greatest pitch of stays 12". Working pressure of plate by rules 228 lbs. Diameter of tubes 2 1/2".Pitch of tubes 3 1/4" x 3 1/4" Material of tube plates *Steel* Thickness: Front 1 1/4" 1 1/8". Back 3/4". Mean pitch of stays 8.3". Pitch across widewater spaces 13 1/2". Working pressures by rules *FRONT BACK* 292 lbs. 293 lbs. Girders to Chamber tops: Material *Steel* Depth and thickness of

girder at centre 10 1/2" x 1 1/2". Length as per rule 22.8". Distance apart 8 1/2". Number and pitch of Stays in each 3: 8"

Working pressure by rules 254 lbs. Superheater or Steam chest: *how connected to boiler None* Can the superheater be shut off and the boiler workedseparately *✓* 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

The foregoing is a correct description,
FOR CAIRD AND COMPANY, LIMITED, Manufacturer.Dates of Survey
During progress of work in shops --
while building During erection on board vessel --

Is the approved plan of boiler forwarded herewith

See accompanying report

Total No. of visits 87.

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

This boiler was built under special survey and the material and workmanship are good. For recommendations see preceding sheet.

Survey Fee ... £

When applied for, 19

Travelling Expenses (if any) £

When received, 19

Wm. R. Austin

Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

GLASGOW

21 MAY. 1912

Assigned

See minute on accompanying machinery report.

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