

REPORT ON BOILERS.

No. 14380 ^d

Received at London Office 10 JUL 1920

Date of writing Report 1920 When handed in at Local Office 1920 Port of

No. in Surrey held at Rotterdam Date, First Survey Last Survey 1920
Reg. Book.

on the *Steel Screw Steamer, BALTANNIC* (Number of Visits) (Gross Tons) (Net Tons)

Master Built at Rotterdam By whom built *Pott Drooga May* Yard No. 42 When built

Engines made at Rotterdam By whom made *Pott Drooga May* Engine No. 42. When made 1903

Boilers made at Rotterdam By whom made *Pott Drooga May* Boiler No. 100-109 When made 1913

Nominal Horse Power Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY, OR DONKEY.~~

Manufacturers of Steel *Aberns Tued. Knapp A.G. Essen.* (Letter for Record *5*)

Total Heating Surface of Boilers *4342 sq ft* Is forced draught fitted Coal or Oil fired *Coal*

No. and Description of Boilers *2 Single ended multitubular Marine* Working Pressure *12.6 kg*

Tested by hydraulic pressure to Date of test No. of Certificate Can each boiler be worked separately *Yes*

Area of Firegrate in each Boiler *57.5 sq ft* No. and Description of safety valves to each boiler *Two Spring loaded*

Area of each set of valves per boiler *12.5 sq ft* Pressure to which they are adjusted *100 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 donkey boiler*

Smallest distance between boilers or uptakes and bunkers or woodwork *over 30"* Is oil fuel carried in the double bottom under boilers *No*

Smallest distance between shell of boiler and tank top plating *24"* Is the bottom of the boiler insulated *Yes*

Largest internal dia. of boilers *4572 mm* Length *3540 mm* Shell plates: Material *S.M. Steel* Tensile strength *44-50 kg*

Thickness *32 mm* Are the shell plates welded or flanged *No* Description of riveting: circ. seams *cap 22 riv*

long. seams *Double butt 32 riv* Diameter of rivet holes in circ. seams *31 mm* Pitch of rivets *83 mm*

Percentage of strength of circ. end seams plate *62.6%* rivets *49.6%* Percentage of strength of circ. intermediate seam plate *—* rivets *—*

Percentage of strength of longitudinal joint plate *85.2%* rivets *103%* combined *94.3%* Working pressure of shell by Rules *12.9 kg*

Thickness of butt straps outer *22 mm* inner *22 mm* No. and Description of Furnaces in each Boiler *3 Deighton patent*

Material *S.M. Steel* Tensile strength *39.4-45 kg* Smallest outside diameter *1069 mm*

Length of plain part top *—* bottom *—* Thickness of plates crown *14 mm* bottom *14 mm* Description of longitudinal joint *Welded*

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules *13 kg*

End plates in steam space: Material *S.M. Steel* Tensile strength *41.5-40 kg* Thickness *30 mm* Pitch of stays *419 x 45 mm*

How are stays secured *Thread in plates and nuts outside* Working pressure by Rules *15.4 kg*

Tube plates: Material front *S.M. Steel* back *S.M. Steel* Tensile strength *39.4-45 kg* Thickness *19 mm*

Mean pitch of stay tubes in nests *197 x 295* Pitch across wide water spaces *375 mm* Working pressure *—*

Girders to combustion chamber tops: Material *S.M. Steel* Tensile strength *44-50 kg* Depth and thickness of girder

at centre *216 x 2 x 16 mm* Length as per Rule *752* *489 mm* Distance apart *216 mm* No. and pitch of stays

in each *2 x 203* Working pressure by Rules *12.6 kg* Combustion chamber plates: Material *S.M. Steel*

Tensile strength *39.4-45 kg* Thickness: Sides *17.5 mm* Back *16 mm* Top *17.5 mm* Bottom *22 mm*

Pitch of stays to ditto: Sides *203 mm* Back *178 x 194* Top *203 x 216 mm* Are stays fitted with nuts or riveted over *Riveted over*

Working pressure by Rules *11.7 kg* Front plate at bottom: Material *S.M. Steel* Tensile strength *40.5 x 40 kg*

Thickness *19 mm* Lower back plate: Material *S.M. Steel* Tensile strength *41.5 x 48* Thickness *19 mm*

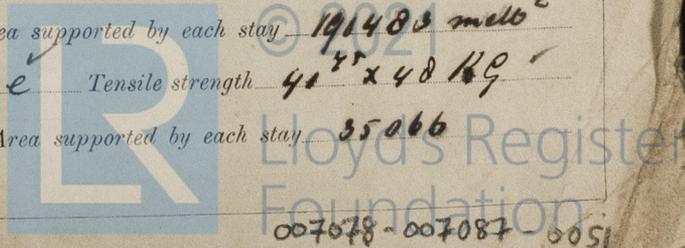
Pitch of stays at wide water space *352* Are stays fitted with nuts or riveted over *Fitted with nuts*

Working Pressure *18.7 kg* Main stays: Material *S.M. Steel* Tensile strength *41.5 x 48 kg*

Diameter At body of stay *40 mm* Over threads *46 mm* No. of threads per inch *9* Area supported by each stay *191483 mm²*

Working pressure by Rules *15.6 kg* Screw stays: Material *S.M. Steel* Tensile strength *41.5 x 48 kg*

Diameter At turned off part *—* Over threads *50 mm* No. of threads per inch *9* Area supported by each stay *35066*



Working pressure by Rules *16.1 kg* Are the stays drilled at the outer ends *No* Margin stays: Diameter ^{At turned off part,} *51 mm*
 No. of threads per inch *9* Area supported by each stay *52205 mm²* Working pressure by Rules *11.8 kg*
 Tubes: Material *Steel* External diameter ^{Plain} *40 mm* ^{Stay} *40 mm* Thickness *6.5 mm* No. of threads per inch *11*
 Pitch of tubes *98* *90 mm* Working pressure by Rules *Manhole compensation: Size of opening in shell plate*
In end plate Section of compensating ring *✓* No. of rivets and diameter of rivet holes *✓*
 Outer row rivet pitch at ends *✓* Depth of flange if manhole flanged *46 mm* Steam Dome: Material *✓*
 Tensile strength *✓* Thickness of shell *✓* Description of longitudinal joint *✓*
 Diameter of rivet holes *✓* Pitch of rivets *✓* Percentage of strength of joint ^{Plate} *✓* ^{Rivets} *✓*
 Internal diameter *✓* Working pressure by Rules *✓* Thickness of crown *✓* No. and diameter of stays *✓*
 How connected to shell *✓* Inner radius of crown *✓* Working pressure by Rules *✓*
 Size of doubling plate under dome *✓* Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell *✓*

Type of Superheater *✓* Manufacturers of ^{Tubes} *✓* ^{Steel castings} *✓*
 Number of elements *✓* Material of tubes *✓* Internal diameter and thickness of tubes *✓*
 Material of headers *✓* Tensile strength *✓* Thickness *✓* Can the superheater be shut off and the boiler be worked separately *✓*
 Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *✓*
 Area of each safety valve *✓* Are the safety valves fitted with easing gear *✓* Working pressure as per Rules *✓*
 Pressure to which the safety valves are adjusted *✓* Hydraulic test pressure: tubes *✓* castings *✓* and after assembly in place *✓* Are drain cocks or valves fitted to free the superheater from water where necessary *✓*
 Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *✓*

The foregoing is a correct description,

Manufacturer.

Dates of Survey ^{During progress of work in shops - -} *✓* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
^{During erection on board vessel - - -} *✓* Total No. of visits *✓*

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

These boilers have been examined internally and externally, their mountings and safety valves and all found in order, all scantling found as per plans.

Survey Fee ... £ : / : When applied for, 192
 Travelling Expenses (if any) £ : / : When received, 192

for Mr. B. ...
J. J. ...
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 17 JUL 1925

FRI. 14 AUG 1925

TUES. 8 JUN 1926

FRI. 19 FEB 1926

Assigned



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