

REPORT ON BOILERS.

No. 7333

Received at London Office - 9 NOV 1926

Date of writing Report *Nov 3* 192*6* When handed in at Local Office *Nov 5* 192*6* Port of *Trieste*

No. in Reg. Book. *9808* Survey held at *Moufalone* Date, First Survey *Aug 27*, Last Survey *Oct 23* 192*6*
(Number of Visits *15*) Tons {Gross *2604*
Net *1136*

Master *W. S. Lucita* Built at *Moufalone* By whom built *Cantiere Nav. Trieste* Yard No. *180* When built *1926*
Engines made at *Rotterdam* By whom made *Rotterdamse S.S. Co* Engine No. *148-49* When made *1926*
Boilers made at *Rotterdam* By whom made *Rotterdamse S.S. Co.* Boiler No. *421-22* When made *1926*
Nominal Horse Power *236* Owners *Caracausche Theophrastus Meats.* Port belonging to *Willemstad*

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

See also Rotterdam Report 13.7.26

Manufacturers of Steel *Morris William Beardmore & Co Ltd* (Letter for Record *S*)

Total Heating Surface of Boilers *4168* Is forced draught fitted *yes* Coal or Oil fired *oil*

No. and Description of Boilers *Two single ended multitubular marine boilers* Working Pressure *180 lbs*

Tested by hydraulic pressure to *320 lbs* Date of test *5.7.26* No. of Certificate *841* Can each boiler be worked separately *yes*

Area of Firegrate in each Boiler *-* No. and Description of safety valves to each boiler *Two high lifting spring loaded*

Area of each set of valves per boiler {per Rule *11.86* as fitted *11.86* Pressure to which they are adjusted *185 lbs* Are they fitted with easing gear *yes*

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *none*

Smallest distance between boilers or uptakes and bunkers or woodwork *-* Is oil fuel carried in the double bottom under boilers *no*

Smallest distance between shell of boiler and tank top plating *-* Is the bottom of the boiler insulated *yes*

Largest internal dia. of boilers *13' 0"* Length *12' 3"* Shell plates: Material *S.M.S.* Tensile strength *28-32 T.*

Thickness *13/32"* Are the shell plates welded or flanged *no* Description of riveting: circ. seams {end *lap 2.2.*
inter. *3 3/16"* long. seams *13/16"* Pitch of rivets {*8 1/8"*

Percentage of strength of circ. end seams {plate *62.9* rivets *52.5* Percentage of strength of circ. intermediate seam {plate *85.4* rivets *88*

Percentage of strength of longitudinal joint {plate *85.4* rivets *88* combined *88.2* Working pressure of shell by Rules *195 lbs*

Thickness of butt straps {outer *7/8"* inner *1"* No. and Description of Furnaces in each Boiler *Two marine*

Material *S.M. steel* Tensile strength *26-30 T* Smallest outside diameter *3' 11 7/8"*

Length of plain part {top *-* bottom *-* Thickness of plates {crown *21/32"* bottom *21/32"* Description of longitudinal joint *welded*

Dimensions of stiffening rings on furnace or c.c. bottom *none* Working pressure of furnace by Rules *200 lbs*

End plates in steam space: Material *S.M. steel* Tensile strength *26-30 T* Thickness *1 1/8"* Pitch of stays *17" x 16"*

How are stays secured *Secured in plates and nutted outside* Working pressure by Rules *210 lbs*

Tube plates: Material {front *S.M. steel* back *S.M. steel* Tensile strength {*26-30 T* Thickness {*13/16"* *3/4"*

Mean pitch of stay tubes in nests *8" - 12"* Pitch across wide water spaces *14 3/4"* Working pressure {front *197 lbs* back *185 lbs*

Girders to combustion chamber tops: Material *S.M. steel* Tensile strength *28-32 T* Depth and thickness of girder

at centre *8 1/2 x 2 x 3/4* Length as per Rule *2' 7 1/2"* Distance apart *8 1/2"* No. and pitch of stays

in each *two a 10"* Working pressure by Rules *298 lbs* Combustion chamber plates: Material *S.M. Steel*

Tensile strength *26-30 T* Thickness: Sides *7/8"* Back *3/4"* Top *7/8"* Bottom *7/8"*

Pitch of stays to ditto: Sides *9 3/4 x 10"* Back *8" x 7 3/4"* Top *10" x 8 1/2"* Are stays fitted with nuts or riveted over *Riveted*

Working pressure by Rules *207 lbs* Front plate at bottom: Material *S.M. steel* Tensile strength *26-30 T*

Thickness *13/16"* Lower back plate: Material *S.M. steel* Tensile strength *26-30 T* Thickness *3/4"*

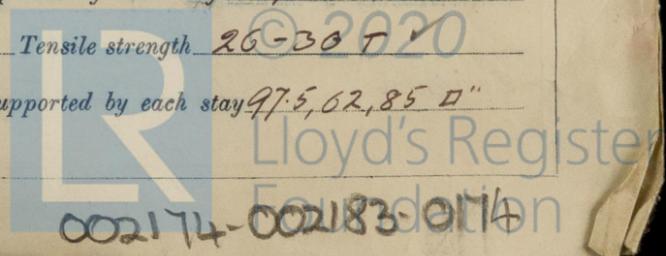
Pitch of stays at wide water space *15 5/8"* Are stays fitted with nuts or riveted over *nut*

Working Pressure *312 lbs* Main stays: Material *S.M. steel* Tensile strength *26-30 T*

Diameter {At body of stay *2 1/2"* or *2 3/4"* No. of threads per inch *9* Area supported by each stay *272 sq"*

Working pressure by Rules *203 lbs* Screw stays: Material *S.M. steel* Tensile strength *26-30 T*

Diameter {At turned off part *1 3/8"* or *1 1/2"* No. of threads per inch *9* Area supported by each stay *97.5, 62, 85 sq"*



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Working pressure by Rules ^{105 lbs} 202 lbs ^{212 lbs} Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part, 1 5/8"} ^{or} ^{Over threads 1 3/4"}

No. of threads per inch 9 Area supported by each stay 84 sq" Working pressure by Rules 216 lbs

Tubes: Material Steel External diameter ^{Plain 2 3/4"} ^{Stay 2 3/4"} Thickness ^{No 8 LSG} ^{2 1/64 & 9/32} No. of threads per inch 9

Pitch of tubes 4" Working pressure by Rules 207 lbs Manhole compensation: Size of opening in shell plate 20 3/4" x 16 3/4" Section of compensating ring 8 1/4 x 8 1/8" No. of rivets and diameter of rivet holes 42 @ 1 7/16"

Outer row rivet pitch at ends 7" Depth of flange if manhole flanged 3 1/2" 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 _____

Inner radius of crown _____ Working pressure by Rules _____

How connected to shell _____ 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 yes

The foregoing is a correct description,
Manufactured _____

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.) _____

^{while building} ^{During erection on board vessel - - -} 1916 Aug 27, Sep 15, 27, 30, Oct 7, 8, 9, Total No. of visits 15
13, 18, 19, 20, 21, 23, 23,

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These Boilers have been built at Kattawan under special survey and satisfactorily fitted on board this vessel by the Cantiere Navale Triestino at Monfalcone. The installation for oil fuel has been fitted as per approved plans and in accordance with the requirements of Section 49 of the Rules 1921-22.*

Survey Fee ... See Invoice: Report When applied for, 192

Travelling Expenses (if any) £ _____ : _____ : _____ When received, 192

R. H. Harris
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 12 NOV 1926

Assigned See Report attached

