

## REPORT ON BOILERS.

No. 1501

Port of *Bremerhaven*

Received at London Office

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No. in Survey held at  
Reg. Book.*Geestmünde*Date, first Survey *3<sup>rd</sup> June 09* Last Survey *5<sup>th</sup> October 1909*(Number of Visits *15*)*18 in. Lap on the Donkey boiler for the S.S. Pagenturm*Gross *5000.49*  
Tons Net *3159.65*Master *A. Fischbeck* Built at *Geestmünde* By whom built *Joh. C. Tecklenborg A.G.* When built *1909*Engines made at *Geestmünde* By whom made *Joh. C. Tecklenborg A.G.* when made *1909*Boilers made at *Geestmünde* By whom made *Joh. C. Tecklenborg A.G.* when made *1909*Registered Horse Power *593* Owners *V. D. Ger. Hansa* Port belonging to *Bremer*MULTITUBULAR BOILERS MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Fr. Krupp Essen*(Letter for record *8*) Total Heating Surface of Boilers *1054* Is forced draft fitted *No* No. and Description ofBoilers *one multitubular steel boiler* Working Pressure *121a* Tested by hydraulic pressure to *192a* Date of test *16<sup>th</sup> Aug 09*No. of Certificate *104* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *45* No. and Description ofsafety valves to each boiler *1 double spring valve* Area of each valve *12.18* Pressure to which they are adjusted *121a*Are they fitted with easing gear *Yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *No*Smallest distance between boilers or uptakes and bunkers or woodwork *12* Mean dia. of boilers *12' 0 3/4"* Length *10'*Material of shell plates *S.M. steel* Thickness *5/16* Range of tensile strength *26.7-31.7* Are the shell plates welded or flanged *flanged*Descrip. of riveting: cir. seams *double* long. seams *double* Diameter of rivet holes in long. seams *15/16* Pitch of rivets *6 9/16*Lap of plates or width of butt straps *14 2 1/2* Per centages of strength of longitudinal joint rivets *102.1%* Working pressure of shell byrules *138a* Size of manhole in shell *11 1/2 x 15 5/16* Size of compensating ring *8 7/8 x 5 1/4* No. and Description of Furnaces in eachboiler *three plain* Material *S.M. steel* Outside diameter *37 7/16* Length of plain part *7 2 1/4* Thickness of plates *5/16*Description of longitudinal joint *welded* No. of strengthening rings *—* Working pressure of furnace by the rules *126a* Combustion chamberplates: Material *S.M. steel* Thickness: Sides *3 7/8* Back *3 7/8* Top *3 7/8* Bottom *5 1/4* Pitch of stays to ditto: Sides *8 7/8* Back *7 5/16*Top *8 7/8* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *151a* Material of stays *Iron* Diameter atsmallest part *1 3/8* Area supported by each stay *62* Working pressure by rules *169a* End plates in steam space: Material *S.M. steel* Thickness *5/16*Pitch of stays *13 1/2 x 1 1/2* How are stays secured *nuts* Working pressure by rules *126a* Material of stays *S.M. steel* Diameter at smallest part *2 1/4*Area supported by each stay *217* Working pressure by rules *169a* Material of Front plates at bottom *S.M. steel* Thickness *5/16* Material ofLower back plate *S.M. steel* Thickness *3 3/8* Greatest pitch of stays *8 9/16* Working pressure of plate by rules *169a* Diameter of tubes *1 1/2*Pitch of tubes *4 7/16 x 4 1/2* Material of tube plates *—* Thickness: Front *5/16* Back *5/16* Mean pitch of stays *8 7/8* Pitch across widewater spaces *14* Working pressures by rules *114a* Girders to Chamber tops: Material *S.M. steel* Depth and thickness ofgirder at centre *7 7/16 x 1/2* Length as per rule *217a* Distance apart *7 3/8* Number and pitch of Stays in each *8 8 7/8*Working pressure by rules *140a* Superheater or Steam chest: how connected to boiler 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

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

## VERTICAL DONKEY BOILER—No. Description Manufacturers of steel

Made at By whom made When made Where fixed Working pressure

tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can

enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile

strength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Lap of plating Per centage of strength of joint Working pressure of shell by rules Thickness of shell crown plates

Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace

Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown

plates Radius of do. Stayed by Diameter of uptake Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description,  
**JOH. C. TECKLENBORG & CO.**  
Schiffswärft und Maschinenbauwerk. Manufacturer.

|                                |                                       |                                                                 |
|--------------------------------|---------------------------------------|-----------------------------------------------------------------|
| Dates of Survey while building | During progress of work in shops - -  | <i>3.6 / 17.6 / 23.6 / 29.6 / 9.8 / 2.8 / 6.8 / 10.8 / 16.8</i> |
|                                | During erection on board vessel - - - | <i>24.8 / 30.8 / 3.9 / 9.9 / 22.9 / 5.10</i>                    |
|                                | Total No. of visits                   | <i>15</i>                                                       |

Is the approved plan of main boiler forwarded herewith *Yes*" " " donkey " " " " *Yes*

W815 0006



GENERAL REMARKS

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

*This donkey boiler has been built under special Survey in accordance with the rules and approved tracing. The material is of best quality, manufactured at approved works and tested as per rule.*

*The workmanship is very good.*

*The boiler has been tested by hydraulic up to 192 lbs per sq. in. has been found quite tight, showing no alteration of form.*

*Under steam it is quite tight and the safety valves lift freely at 121 lbs per sq. in.*

*For spare articles please see list on Report on Machinery*

*J. Thomson*

| The amount of Entry Fee...     | £ | When applied for, |
|--------------------------------|---|-------------------|
| Special ...                    | £ | 19                |
| Donkey Boiler Fee ...          | £ |                   |
| Travelling Expenses (if any) £ |   |                   |

Committee's Minute

10th, 19 OCT 1909

Assigned

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



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