

REPORT ON BOILERS.

No. 806

Received at London Office *MON. OCT. 15 1920*

Date of writing Report *14th Nov 1920* When handed in at Local Office *19* Port of *Stettin*

No. in Survey held at *Stettin* Date, First Survey *13th May* Last Survey *10th Nov 1920*

Reg. Book. on the *Boiler No 3145/46 for YARD No 212, "MAJA"* (Number of Visits) Gross Tons } Net Tons }

Master *being* Built at *Vlaardingen* By whom built *N. H. G. van der Windt* When built

Engines made at By whom made When made

Boilers made at *Stettin* By whom made *Vulcan-Werke* When made *1920*

Registered Horse Power Owners *N. H. Handelman "Navis"* Port belonging to *Groningen*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Plater, Phoenix Wt. Works, Nord. Dan. A. Kong, Nord. Oberhausen*

(Letter for record *5*) Total Heating Surface of Boilers *200 sq mtrs* Is forced draft fitted *✓* No. and Description of Boilers *Two cylindrical multitubular* Working Pressure *13.5 kg* Tested by hydraulic pressure to *24.3 kg* Date of test *10/11/20*

No. of Certificate *95296* Can each boiler be worked separately *✓* Area of fire grate in each boiler *3.06 sq mtr* No. and Description of safety valves to each boiler *✓* Area of each valve *✓* Pressure to which they are adjusted *✓*

Are they fitted with easing 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 *✓* Mean dia. of boilers *3052 m/m* Length *3200 m/m*

Material of shell plates *steel* Thickness *24 m/m* Range of tensile strength *43-52* Are the shell plates welded or flanged *no*

Descrip. of riveting: cir. seams *double* long. seams *stitch* Diameter of rivet holes in long. seams *27 m/m* Pitch of rivets *189 m/m*

Lap of plates or width of butt straps *416 m/m* Per centages of strength of longitudinal joint rivets *95%* Working pressure of shell by rules *14.4 kg* Size of manhole in shell *300 x 400 m/m* Size of compensating ring *1030 x 780 m/m* No. and Description of Furnaces in each boiler *2, Marine* Material *steel* Outside diameter *1000 m/m* Length of plain part top *✓* Thickness of plates crown *15 m/m* bottom *15 m/m*

Description of longitudinal joint *welded* No. of strengthening rings *✓* Working pressure of furnace by the rules *15.4 kg* Combustion chamber plates: Material *steel* Thickness: Sides *17.5* Back *17* Top *16.5* Bottom *17.5* Pitch of stays to ditto: Sides *220 x 172* Back *200 x 178*

Top *190 x 220* If stays are fitted with nuts or riveted heads *both* Working pressure by rules *15.4 kg* Material of stays *steel* Area at smallest part *13400 sq cm* Area supported by each stay *356000 sq cm* Working pressure by rules *21 kg* End plates in steam space: Material *steel* Thickness *21 m/m*

Pitch of stays *340 x 340* How are stays secured *nuts & washers* Working pressure by rules *15 kg* Material of stays *steel* Area at smallest part *316700 sq cm*

Area supported by each stay *156000 sq cm* Working pressure by rules *20 kg* Material of Front plates at bottom *steel* Thickness *21 m/m* Material of Lower back plate *steel* Thickness *21 m/m* Greatest pitch of stays *350 x 200* Working pressure of plate by rules *23.3* Diameter of tubes *76 m/m*

Pitch of tubes *100 x 103* Material of tube plates *steel* Thickness: Front *21 m/m* Back *19 m/m* Mean pitch of stays *200 x 309* Pitch across wide water spaces *350 m/m* Working pressures by rules *17.2 kg* Girders to Chamber tops: Material *steel* Depth and thickness of girder at centre *175 x 2 x 19* Length as per rule *684 m/m* Distance apart *190 m/m* Number and pitch of Stays in each *220 x 190*

Working pressure by rules *17.5* Steam dome: description of joint to shell *✓* % of strength of joint *✓*

Diameter *✓* Thickness of shell plates *✓* Material *✓* Description of longitudinal joint *✓* Diam. of rivet holes *✓*

Pitch of rivets *✓* Working pressure of shell by rules *✓* Crown plates *✓* Thickness *✓* How stayed *✓*

SUPERHEATER. Type *✓* Date of Approval of Plan *✓* Tested by Hydraulic Pressure to *✓*

Date of Test *✓* Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *✓*

Diameter of Safety Valve *✓* Pressure to which each is adjusted *✓* Is Easing Gear fitted *✓*

The foregoing is a correct description,

sign. *Vulcan-Werke Stettin* Manufacturer.

Dates of Survey { During progress of work in shops - - } *1920: May 13, June 12, July 17, Aug 18* Is the approved plan of boiler forwarded herewith *yes*
 { while building } { During erection on board vessel - - } *Sept 20, Oct 15, Nov 10.* Total No. of visits *5*

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

These Boilers have been manufactured under Special Survey. The materials used in the construction have been made at works approved off by the Committee and tested by the Society's Surveyor (as required by the Rules and by the Secretary's letters (two Certificates of test attached). The workmanship is satisfactory p.t.o.

Survey Fee £ *7 : 4 : 0* When applied for *12. Nov 1920*
 Testing stay material £ *5 : 6 : 0* When received *6. 12. 1920 R.B.P.*
 Travelling Expenses (if any) £

Committee's Minute *FRI. 20 OCT. 1920*

Assigned

sign. *G. H. C. H. A. M. P.* 2020
 Engineer Surveyor to Lloyd's Register of Shipping.

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003391-003400-0272

It is submitted that these boilers be eligible to be approved for the intended working pressure of 13.5 kilograms per square centimetre subject to the mountings as required by the Rules being fitted, the boilers being tested under steam and their safety valves being adjusted.

The Rotterdam Surveyor have been advised.

Wm. G. H.



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