

REPORT ON WATER TUBE BOILERS.

Received at London Office

Date of writing Report *6th SEPT. 1926* When handed in at Local Office

19

Port of **HAMBURG**

No. in Survey held at *TIEL* Date, First Survey *9th February* Last Survey *20th August 1926*
 Reg. Bk. on the *Steer. Twin Sc. M.V. "CALLIOPE"* Number of Visits *16* Tons { Gross *8744* Net *5026*
 Master Built at *TIEL* By whom built *HOWALDTSWERKE* When built *1926*
 Engines made at *TIEL* By whom made *HOWALDTSWERKE* When made *1926*
 D-Boilers made at *TIEL* By whom made *HOWALDTSWERKE* When made *1926*
 Registered Horse Power *776* Owners *SALT AMERIK. PETROL. IND. G. m. b. H.* Port belonging to *DANZIG*

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel *Phoenix-Hoerde*

(Letter for Record *S.*) Date of Approval of plan *10. 10. 24.* Number and Description or Type of Boilers *2 Water Tube Donkey Boilers* Working Pressure *14 kg/200 lb* Tested by Hydraulic Pressure to *28 kg/400 lb* Date of Test *20.5.26.*
 No. of Certificate *429-430.* Can each boiler be worked separately *yes* Total Heating Surface of Boilers *240 sq. m.*
 Is forced draught fitted *yes* Area of fire grate (coal) in each Boiler *oil fired* Total grate area of boilers in vessel including Main and Auxiliary *no* No. and type of burners (oil) in each boiler *2 Babcock Burners* No. and description of safety valves on each boiler *2 Spring loaded* Area of each valve *70 cm²* Pressure to which they are adjusted *14 kg/200 lb.*
 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 *1900 mm* Height of Boiler *4300 mm* Width and Length *1900-4600 mm*
 Steam Drums:—Number in each boiler *1* Inside diameter *1300 mm* Material of plates *Steel* Thickness *21 mm*
 Range of Tensile Strength *44-51 kg/cm²* Are drum shell plates welded or flanged *flanged* Description of riveting:—
 Cir. seams *lp double* long. seams *lp double* Diameter of rivet holes in long. seams *26 mm* Pitch of Rivets *93 mm*
 Lap of plate or width of butt straps *264 mm* Thickness of straps *16 mm* Percentage strength of long. joint:—Plate *72%* Rivet *83.5%*
 Diameter of tube holes in drum *95 mm* Pitch of tube holes *185 mm* Percentage strength of shell in way of tubes *48.6%*
 If Drum has a flat side state method of staying *no* Depth and thickness of girders at centre (if fitted) *no*
 Distance apart *no* Number and pitch of stays in each *no* Working pressure by rules *14.25 kg/cm²*
 Steam Drum Heads or Ends:—Material *Steel* Thickness *23-25 mm* Radius or how stayed *1300 mm*
 Size of Manhole or Handhole *300 x 400 mm* Water Drums:—Number in each boiler *no* Inside Diameter *no*
 Material of plates *no* Thickness *no* Range of tensile strength *no* Are drum shell plates welded or flanged *no*
 Description of riveting:—Cir. seams *no* long. seams *no* Diameter of Rivet Holes in long. seams *no* Thickness of Straps *no*
 Pitch of rivets *no* Lap of plates or width of butt straps *no* Percentage strength of long. joint:—Plate *no* Rivet *no*
 Diameter of tube holes in drum *no* Pitch of tube holes *no* Percentage strength of drum shell in way of tubes *no*
 Water Drum Heads or Ends:—Material *no* Thickness *no* Radius or how stayed *no*
 Size of manhole or handhole *no* Headers or Sections:—Number *2*
 Material *Steel* Thickness *19 mm* Tested by Hydraulic Pressure to *28 kg/400 lb* Material of Stays *Steel*
 Area at smallest part *29 mm* Area supported by each stay *256 sq. cm.* Working Pressure by Rules *26.5 kg/cm²* Tubes:—Diameter *95 mm*
 Thickness *5.5-4.5 mm* Number *139* Steam Dome or Collector:—Description of Joint to Shell *no*
 Percentage strength of Joint *no* Diameter *no* Thickness of shell plates *no* Material *no*
 Description of longitudinal joint *no* Diameter of Rivet Holes *no* Pitch of Rivets *no* Working Pressure of shell by Rules *no*
 Crown or End Plates:—Material *no* Thickness *no* How stayed *no*

UPERHEATER. Type *no* Date of Approval of Plan *no* Tested by Hydraulic Pressure to *no*
 Date of Test *no* Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler *no*
 Diameter of Safety Valve *no* Pressure to which each is adjusted *no* Is easing gear fitted *no*
 Is a drain cock or valve fitted at lowest point of superheater *no* Number, diameter, and thickness of tubes *no*
 Spare Gear. Tubes *no* Gaskets or joints:—Manhole *no* Handhole *no* Handhole plates *no*

The foregoing is a correct description,

HOWALDTSWERKE

F. P. Zahn Manufacturer.

Dates of Survey while building: During progress of work in shops *2/1-2/3-9/3-16/3-23/3-7/4-27/4-4/5-14/5-19/5-20/5/26* Is the approved plan of boiler forwarded herewith *yes*
 During erection on board vessel *28/7-3/8-10/8-20/8-28/8/26* Total No. of visits *16*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *Material & workmanship of these boilers are of good quality. The materials used in the construction are made at works recognized by the Committee and tested in accordance with the requirements of the Rules. These W.T. boilers having been built under Special Survey in conformity with the approved plan, the Secretary's letter and other rules in accordance with the requirements of the Rules are eligible in my opinion for record N.D.B.(W.T.)-26*

Survey Fee *£ 8. : 8. :* When applied for, *25.8.26*
 Travelling Expenses (if any) *£ : : :* When received, *6/9/26*

Friedrich Witt
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 17 SEP 1926*
 Assigned *See A.E. rpt. attached*

