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# REPORT ON WATER TUBE BOILERS.

No. 16908

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Port of **HAMBURG**

Survey held at **MIEL** Date, First Survey **1<sup>st</sup> Sept. 1925** Last Survey **22<sup>nd</sup> June 1926**  
 on the **Steel Twin S.M.V. "URANIA"** Number of Visits **16** Tons { Gross **8744**  
 Built at **MIEL** By whom built **HOWALDTSWERKE** When built **1926**  
 Made at **LUDWIGSHAFEN** By whom made **Ged. SULZER** When made **1926**  
 Made at **MIEL** By whom made **HOWALDTSWERKE** When made **1926**  
 Horse Power **226** Owners **BALTISCH-AYER. PETROL. TR. G.m.b.H.** Port belonging to **DANZIG**

**WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.**—Manufacturers of Steel **Phoenix. Haerde.**  
 for Record **3** Date of Approval of plan **10. 10. 24.** Number and Description or Type  
 Boilers **2 Water Tube. Donkey Boilers** Working Pressure **4 1/2 kg (200 lb)** Tested by Hydraulic Pressure to **400 lb.** Date of Test **9. 3. 26**  
 Certificate **420-421** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **240 sq. m.**  
 Draught fitted **Yes** Area of fire grate (coal) in each Boiler **oil fired** Total grate area of boilers in vessel including  
 and Auxiliary No. and type of burners (oil) in each boiler **2 Dahl burner** No. and description of safety valves on  
 boiler **Spring loaded** Area of each valve **70 cm.** Pressure to which they are adjusted **14 kg (200 lb)**  
 They fitted with easing gear **Yes** In case of donkey boilers state whether steam from main boilers can enter the donkey boiler **no return valve**  
 Test distance between boilers or uptakes and bunkers **woodwork 1900 mm** Height of Boiler **4300 mm** Width and Length **2900-4600 mm**  
 Drums:—Number in each boiler **1** Inside diameter **1300 mm** Material of plates **Steel** Thickness **21 mm**  
 of Tensile Strength **44.5 kg/cm<sup>2</sup>** Are drum shell plates welded or flanged **flanged** Description of riveting:—  
 seams **lp. double** long. seams **D.B. double** Diameter of rivet holes in long. seams **26 mm** Pitch of Rivets **93 mm**  
 of plate or width of butt straps **264 mm** Thickness of straps **16 mm** Percentage strength of long. joint:—Plate **72%** Rivet **82.5%**  
 Diameter of tube holes in drum **95 mm** Pitch of tube holes **185 mm** Percentage strength of shell in way of tubes **48.6%**  
 Drum has a flat side state method of staying  
 Distance apart Number and pitch of stays in each Working pressure  
**14.25 kg/cm<sup>2</sup>** **Steel** Thickness **22, 25 mm** Radius or how stayed **1300 mm**  
 of Manhole or Handhole **300 x 400 mm** Water Drums:—Number in each boiler Inside Diameter  
 Material of plates Thickness Range of tensile strength Are drum shell plates welded  
 long. seams Description of riveting:—Cir. seams long. seams Diameter of Rivet Holes in  
 Pitch of rivets Lap of plates or width of butt straps Thickness of straps  
 Percentage strength of long. joint:—Plate Rivet Diameter of tube holes in drum Pitch of tube holes  
 Percentage strength of drum shell in way of tubes  
 Water Drum Heads or Ends:—Material Thickness  
 Size of manhole or handhole Headers or Sections:—Number **2**  
 Material **Steel** Thickness **late plate: 24 mm** Tested by Hydraulic Pressure to **28 kg (400 lb)** Material of Stays **Steel**  
 at smallest part **20 mm** Area supported by each stay **256 sq. cm.** Working Pressure by Rules **26.3 kg.** Tubes:—Diameter **95 mm**  
 Pressure **5.5 mm. 4.5 mm.** Number **139** Steam Dome or Collector:—Description of Joint to Shell  
 Percentage strength of Joint Diameter Thickness of shell plates Material  
 Description of longitudinal joint Diameter of Rivet Holes Pitch of Rivets Working Pressure of shell

**REHEATER.** Type Date of Approval of Plan Tested by Hydraulic Pressure to  
 Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler  
 Pressure to which each is adjusted Is easing gear fitted  
 Number, diameter, and thickness of tubes  
 Gaskets or joints:—Manhole Handhole Handhole plates

The foregoing is a correct description,  
**HOWALDTSWERKE** Manufacturer.

During progress of work in shops **4/9 - 2/10 - 9/10 - 3/11 - 17/11 - 11/12 - 23/12 - 29/12/25 - 22/1 - 2/3 - 9/3/26** Is the approved plan of boiler forwarded herewith **Yes**  
 During erection on board vessel **4/5 - 19/5 - 8/6 - 15/6 - 22/6/26** Total No. of visits **16**

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) Material & workmanship of these W.T. boilers  
 of good quality. The materials used in the construction are made at works recognized by the Committee  
 in accordance with the requirements of the Rules. These boilers having been built under  
 Survey in conformity with the approved plan the Secretary's letter and otherwise in accor-  
 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, **1. 7. 1926**  
 Travelling Expenses (if any) **£ - : - :** When received, **19. 7. 1926**

**Friedrich Hill**  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 See Rpt. attached