Rpt. 5a.

REPORT ON BOILERS.

No.

Received at London Office TUE. APR. 3 1923

Date of writing Report 19 When handed in at Local Office 19 Port of Bremen

No. in Reg. Book. Survey held at Bremen Date, First Survey Last Survey 19

(Number of Visits)

on the Twin S/S "MUNCHEN" Tons Gross / Net

Master Built at Bremen By whom built Act-Ges Vulcan When built

Engines made at Bremen By whom made When made

Boilers made at Bremen By whom made When made

Registered Horse Power Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~.—*Manufacturers of Steel*

(Letter for record S) **Total Heating Surface of Boilers** 6 Double & 1 Single 42,000 ft² Sund 305 m² Is forced draft fitted Yes **No. and Description of Boilers** One Single ended

Working Pressure 15.5 kg Tested by hydraulic pressure to 220 lb Total G.S. 1015 ft² Date of test

No. of Certificate Can each boiler be worked separately Yes **Area of fire grate in each boiler** 7,25 m² No. and Description of safety valves to each boiler Two Area of each valve Pressure to which they are adjusted

Are they fitted with casing 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 17'-0 3/4" Length 11'-7 1/2" 5200 m/m 3540 m/m

Material of shell plates Steel Thickness 38.5 m/m Range of tensile strength 47 - 55 kg Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D Rio long. seams Double Scalloped Straps Diameter of rivet holes in long. seams 41 m/m Pitch of rivets ✓

Lap of plates or width of butt straps Thickness 297 Per centages of strength of longitudinal joint rivets 86 1/2 % plate Working pressure of shell by rules 15.5 kg Size of manhole in shell Double with 41 1/2 dia Size of compensating ring 385 m/m Thick **No. and Description of Furnaces in each boiler** 4 Suspension Material Steel Outside diameter 1134 m/m Length of plain part top ✓ bottom 20.36 kg tensile Thickness of plates crown 17 m/m bottom

Description of longitudinal joint Welded No. of strengthening rings ✓ Working pressure of furnace by the rules 15.1 kg Combustion chamber plates: Material Steel Thickness: Sides 18.5 Back 18.5 Top 18.5 Bottom 18.5 Pitch of stays to ditto: Sides 190x205 Back 190x200 Top 190x205 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 22 kg Material of stays Steel Area at smallest part Dia bolt 38 - 53.5 Marpei stays 47 bolt dia Area supported by each stay Working pressure by rules 18.5 kg End plates in steam space: Material Steel Thickness 25 m/m

Pitch of stays 430x380 How are stays secured Nuts riveted washers Working pressure by rules 15.2 kg Material of stays Steel ~~Area~~ Dia at smallest part 74 m/m

Area supported by each stay 400x400 Working pressure by rules 15.1 Material of Front plates at bottom Steel 24/28 tensile Thickness 25 m/m Material of Lower back plate Steel Thickness 27 m/m Greatest pitch of stays 420x200 Working pressure of plate by rules 16.5 kg Diameter of tubes 76 m/m

Stay tubes 87 m/m bolt thickness Pitch of tubes 103x105 Material of tube plates Steel Thickness: Front 25 m/m Back 24 m/m Mean pitch of stays 236 m/m Pitch across wide water spaces 355 m/m Working pressures by rules 14.6 kg 15 plate + 20 double alternate Stay tubes Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 270 x 2 x 15 Length as per rule 720 Distance apart 200 Number and pitch of Stays in each 3 - 190

Working pressure by rules 21 kg. Steam dome: description of joint to shell None % 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,

Manufacturer.

Dates of Survey while building: During progress of work in shops - - - ; During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith

Total No. of visits

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

Survey Fee ... ... £ : : When applied for, 19

Travelling Expenses (if any) £ : : When received, 19

E. J. Stoddart.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 17 APR. 1923

Assigned