

REPORT ON BOILERS.

No. 466

Received at London Office **THU NOV 13 1920**
 Date of writing Report **13th Nov 20** When handed in at Local Office **10** Port of **Bremen**
 No. in Survey held at **Vegorack** Date, First Survey **8th June** Last Survey **6th Nov 1920**
 No. of Boilers **8** (Number of Visits **8**) Gross Tons **8** Net Tons **8**
 on the **Boilers for YARD No 18** being Built at **Landstroma** By whom built **Actieb. Bremer Vulkan** When built **1920**
 Engines made at **Vegorack** By whom made **Bremer Vulkan** When made **1920**
 Boilers made at **Vegorack** By whom made **Bremer Vulkan** When made **1920**
 Indicated Horse Power **100** Owners **Hugo Stinnes** Port belonging to **Bremen**

TITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Water: **Phosph. Alt. Rinder Stein, Rind.**
 Manufacturers of Steel Plates: **L. & M. Rind. u. Kittenbach**

for record **5**) Total Heating Surface of Boilers **5580 m²** Is forced draft fitted **✓** No. and Description of
3 cylindrical multitubular Working Pressure **14 kilogr.** Tested by hydraulic pressure to **28 kilogr.** Date of test **Oct. 19. 26**
 Certificate **92, 93, 94** Can each boiler be worked separately **✓** Area of fire grate in each boiler **3.75 m²** No. and Description of
 valves to each boiler **✓** Area of each valve **✓** Pressure to which they are adjusted **✓**
 by fitted with casing gear **✓** In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler **✓**
 at distance between boilers or uptakes and bunkers or woodwork **✓** Mean dia. of boilers **4181 m/m** Length **3402 m/m**
 al of shell plates **1. m. steel** Thickness **31 m/m** Range of tensile strength **44.1-50 kg** Are the shell plates welded or flanged **no**
 p. of riveting: cir. seams **double** long. seams **single** Diameter of rivet holes in long. seams **33 m/m** Pitch of rivets **234 m/m**
 plates or width of butt straps **500 m/m** Per centages of strength of longitudinal joint **86.7** Working pressure of shell by
4.1 kilogr. Size of manhole in shell **300 x 400 m/m** Size of compensating ring **1060 x 960 m/m** No. and Description of Furnaces in each
3, Morion Material **steel** Outside diameter **1050 m/m** Length of plain part **top** Thickness of plates **crown** **15 m/m**
 tion of longitudinal joint **welded** No. of strengthening rings **✓** Working pressure of furnace by the rules **14.2 kilogr.** Combustion chamber
 Material **steel** Thickness: Sides **12 m/m** Back **18 m/m** Top **17 m/m** Bottom **20 m/m** Pitch of stays to ditto: Sides **200 x 200** Back **218 x 210**
2 x 200 If stays are fitted with nuts or riveted heads **nuts & washers** Working pressure by rules **15 kilogr.** Material of stays **steel** Area at
 at part **1134 m/m** Area supported by each stay **460 m** Working pressure by rules **16 kg** End plates in steam space: Material **steel** Thickness **27 m/m**
 of stays **470 x 40** How are stays secured **nuts & washers** Working pressure by rules **18 kg** Material of stays **steel** Area at smallest part **4656 m/m**
 supported by each stay **2068 m** Working pressure by rules **16.4 kg** Material of Front plates at bottom **steel** Thickness **26 m/m** Material of
 back plate **steel** Thickness **18 m/m** Greatest pitch of stays **218 x 218 m/m** Working pressure of plate by rules **18 kg** Diameter of tubes **83 m/m**
 of tubes **114 m/m** Material of tube plates **steel** Thickness: Front **26 m/m** Back **20 m/m** Mean pitch of stays **228 m/m** Pitch across wide
 spaces **325 m/m** Working pressures by rules **14 kilogr.** Girders to Chamber tops: Material **steel** Depth and thickness of
 at centre **230 x 2 x 18 m/m** Length as per rule **602 m/m** Distance apart **230 m/m** Number and pitch of Stays in each **2 - 200 m/m**
 ng pressure by rules **25 kilogr.** Steam dome: description of joint to shell **✓** % of strength of joint **✓**
 ter **✓** Thickness of shell plates **✓** Material **✓** Description of longitudinal joint **✓** Diam. of rivet holes **✓**
 of rivets **✓** Working pressure of shell by rules **✓** Crown plates **✓** Thickness **✓** How stayed **✓**

RHEATER. Type **Schmidt** Date of Approval of Plan **13/1/20** Tested by Hydraulic Pressure to **42 kilogr.**
 Test **30th Oct. 1920** Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler **✓**
 r of Safety Valve **✓** Pressure to which each is adjusted **✓** Is Easing Gear fitted **✓**

The foregoing is a correct description,
 Bremer Vulkan
 Schmidt und Maschinenfabrik
 Manufacturer.

During progress of work in shops -- **1920: - June 8, Aug 6, Oct 7, 19, 26 Nov. 1, 6** Is the approved plan of boiler forwarded herewith **Copy**
 During erection on board vessel -- **✓** Total No. of visits **8**

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 works approved off by the Committee and tested by the see continuation.

Survey Fee ... £ 13 : 5 : } When applied for, **2. 11. 1920**
 Travelling Expenses (if any) £ 2 : 5 : } When received, **7. 11. 1920**

Committee's Minute **FRI. 4 MAR. 1921**

G. H. B. Hamr.
 Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
 Foundation

Kremen

Continuation of Report No. 466 dated 13th Nov 1920 on the

THU. NOV. 13 1920

Boilers for S. S. YARD, No 18
building at Akrit. Grundvaroot, Sandkrona.

Society's Surveyor as required by the Rules (2 certificates of test attached.) The workmanship is satisfactory.

It is submitted that these boilers be eligible to be approved for the intended working pressure of 14 Kilogrammes 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 Superheaters have been subjected in my presence to an hydraulic pressure of 3 times the working pressure and found satisfactory. The materials used in the construction have been made at a works approved of by the Committee and tested as required by the Rules. A number of tests on the welded ends of the elements proved satisfactory.

These Superheaters are in my opinion eligible to be approved for the intended working pressure subject to their being tested under steam, a safety valve with easing gear being fitted to every portion of the Superheater which can be shut off from the boiler and the safety valves being adjusted.

A copy of this Report has been forwarded to the Marine Surveyor.

J. H. B. KEMP