

REPORT ON BOILERS.

No. 670
FRI. OCT. 19 1923

Received at London Office

Date of writing Report *14th Oct 23* When handed in at Local Office *19* Port of *Bremen*
 No. in Survey held at *Güstumünde* Date, First Survey *4th July* Last Survey *9th Oct 1923*
 Reg. Book. *41554* on the *Tou Linghi Screw Steamer "ZEMBRA"* (Number of Visits *8*) Gross Tons *5074* Net Tons *2823*
 Master *Güstumünde* Built at *Güstumünde* By whom built *G. Seebach A.G.* When built *1923*
 Engines made at *Güstumünde* By whom made *G. Seebach A.G.* When made *1923*
 Boilers made at *Güstumünde* By whom made *G. Seebach A.G.* When made *1923*
 Registered Horse Power *347* Owners *F. & C. Strick & Co. Ltd.* Port belonging to *Luxemburg*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *G. Seebach A.G. Bremen - Ruhr*

(Letter for record *S*) Total Heating Surface of Boilers *120 sq mtrs* Is forced draft fitted *no* No. and Description of Boilers *1 cylindrical multitubular* Working Pressure *8.5 kg* Tested by hydraulic pressure to *16.5 kg* Date of test *25/9/23*
 No. of Certificate *—* Can each boiler be worked separately *yes* Area of fire grate in each boiler *3.6 sq mtrs* No. and Description of safety valves to each boiler *2 spring loaded* Area of each valve *5027 sq mm* Pressure to which they are adjusted *8.5 kg*
 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 or woodwork *400 mm* Mean dia. of boilers *3638 mm* Length *3050 mm*
 Material of shell plates *steel* Thickness *18 mm* Range of tensile strength *44-52 kg* Are the shell plates welded or flanged *no*
 Descrip. of riveting: cir. seams *double* long. seams *treble* Diameter of rivet holes in long. seams *23 mm* Pitch of rivets *136 mm*
 Lap of plates or width of butt straps *350 mm* Per centages of strength of longitudinal joint *83* Working pressure of shell by rules *8.5 kg* Size of manhole in shell *300 x 400 mm* Size of compensating ring *580 x 680 x 21 mm* No. and Description of Furnaces in each boiler *3 Marium* Material *steel* Outside diameter *1150 mm* Length of plain part *—* Thickness of plates *10 mm*
 Description of longitudinal joint *welded* No. of strengthening rings *—* Working pressure of furnace by the rules *8.5 kg* Combustion chamber plates: Material *steel* Thickness: Sides *13 mm* Back *13 mm* Top *13.5 mm* Bottom *13 mm* Pitch of stays to ditto: Sides *200 x 200* Back *210 x 190*
 If stays are fitted with nuts or riveted heads *no* Working pressure by rules *9.2 kg* Material of stays *steel* Area at smallest part *72 sq cm* Area supported by each stay *4000 cm* Working pressure by rules *10.2 kg* End plates in steam space: Material *steel* Thickness *22 mm*
 Pitch of stays *410 x 400* How are stays secured *with washers* Working pressure by rules *9.8 kg* Material of stays *steel* Area at smallest part *2376*
 Area supported by each stay *1640 sq cm* Working pressure by rules *10.5 kg* Material of Front plates at bottom *steel* Thickness *22 mm* Material of Lower back plate *steel* Thickness *21 mm* Greatest pitch of stays *190 x 360 mm* Working pressure of plate by rules *12.6 kg* Diameter of tubes *76 mm*
 Pitch of tubes *104 x 104* Material of tube plates *steel* Thickness: Front *22 mm* Back *20 mm* Mean pitch of stay *312 mm* Pitch across wide water spaces *360 mm* Working pressures by rules *9.4 kg* Girders to Chamber tops: Material *steel* Depth and thickness of girder at centre *170 x 2 x 12* Length as per rule *660 mm* Distance apart *210 mm* Number and pitch of Stays in each *2 - 200 mm*
 Working pressure by rules *8.5 kg* 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,

Manufacturer.

Dates of Survey *1923: July 4, 14, 23 Aug 13 Sept 8, 25* Is the approved plan of boiler forwarded herewith *yes*
 while building *Sept 29, Oct. 9* Total No. of visits *8*

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

This donkey boiler has been manufactured in accordance with the approved plans, the Secretary's letters and otherwise in accordance with the Rules.
The materials used in the construction and the workmanship are good (See Report 4 attached)

Survey Fee ... £ *—* When applied for, *—* 19
 Travelling Expenses (if any) £ *—* When received, *—* 19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 2 NOV. 1923

Assigned

Lloyd's Register
Foundation