

# REPORT ON BOILERS.

BREMEN No. 1925.  
HAM No. 22159

*Copied from Hamburg Rpt. 22159  
now completed Bremen*

JUN 26 1937

BREMEN 24. 6. 37

Received at London Office

Date of writing Report 9<sup>th</sup> Jan. 1937 When handed in at Local Office

Port of Hamburg & Bremen

No. in Survey held at HAMBURG & WESERMÜNDE Date, First Survey 20<sup>th</sup> Novemb 1936 Last Survey 14<sup>th</sup> Dec. 1936

8442 on the Singa S. Vind **GAMBIAN**

(Number of Visits 4 + 4) Tons { Gross 5452  
Net 3106

Master Built at WESERMÜNDE By whom built DESCHIMAG, WERK: SEEBECK Yard No. 571 When built 1937

Engines made at BREMEN By whom made DESCHIMAG, WERK: A.G. WEIER Engine No. 138/139 When made 1937

Boilers made at HAMBURG By whom made DEUTSCHE WERFT A.G. Boiler No. 69/92 When made 1937

Nominal Horse Power 577 Owners LEVER BROS. TORONTO. Port belonging to FREETOWN

## WASTE HEAT LA-MONT DONKEY BOILER COIL SYSTEM

### MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel HEADERS: Klöckner Werke A.G. Abt. Georgsmarienhütte  
COILS: MANNESMANN Röhrenwerke, Witten

(Letter for Record 5)

Total Heating Surface of Boilers 40 m<sup>2</sup> Is forced draught fitted  Coal or Oil fired Waste gas heated

No. and Description of Boilers 2, Waste heat La Mont Donkey boilers Working Pressure 7 kg/cm<sup>2</sup>  
Tested by hydraulic pressure to 14 kg/cm<sup>2</sup> Date of test 14. 12. 36 No. of Certificate 646/47 Can each boiler be worked separately only in connection with a vertical D. Boiler

Area of Firegrate in each Boiler  No. and Description of safety valves to each boiler 1 spring loaded

Area of each set of valves per boiler { per Rule   
as fitted 707 cm<sup>2</sup> 30 f Pressure to which they are adjusted 7 kg/cm<sup>2</sup> Are they fitted with easing gear yes

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  Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating  Is the bottom of the boiler insulated

Largest internal dia. of boilers 970 Z f HIGHT Length 2700 Z DISTRIBUTOR S. M. Fuel  
Shell plates: Material round bar iron Tensile strength 41-47 kg/cm<sup>2</sup>

Are the shell plates welded or flanged  Description of riveting: circ. seams { end   
inter.

Diameter of rivet holes in { circ. seams 26/32 Z  
long. seams 26/32 Z Pitch of rivets { 3 Z

Percentage of strength of circ. end seams { plate   
rivets  Percentage of strength of circ. intermediate seam { plate   
rivets

Percentage of strength of longitudinal joint { plate   
rivets   
combined  Working pressure of shell by Rules

Thickness of butt straps { outer   
inner  No. and Description of Furnaces in each Boiler

Material iron Tensile strength 41-47 kg/cm<sup>2</sup> Smallest outside diameter 970 mm

Length of plain part { top   
bottom  Thickness of plates { crown   
bottom  Description of longitudinal joint butt

Dimensions of stiffening rings on furnace or c.c. bottom none Working pressure of furnace by Rules

End plates in steam space: Material iron Tensile strength 41-47 kg/cm<sup>2</sup> Thickness 10 mm Pitch of stays 100 mm

How are stays secured by nuts Working pressure by Rules

Tube plates: Material { front   
back  Tensile strength { 41-47 kg/cm<sup>2</sup> Thickness { 10 mm

Mean pitch of stay tubes in nests 100 mm Pitch across wide water spaces 100 mm Working pressure { front   
back

Girders to combustion chamber tops: Material iron Tensile strength 41-47 kg/cm<sup>2</sup> Depth and thickness of girder 100 mm x 10 mm

at centre 100 mm Length as per Rule 100 mm Distance apart 100 mm No. and pitch of stays 100 mm

in each 100 mm Working pressure by Rules 7 kg/cm<sup>2</sup> Combustion chamber plates: Material iron

Tensile strength 41-47 kg/cm<sup>2</sup> Thickness: Sides 10 mm Back 10 mm Top 10 mm Bottom 10 mm

Pitch of stays to ditto: Sides 100 mm Back 100 mm Top 100 mm Are stays fitted with nuts or riveted over

Working pressure by Rules 7 kg/cm<sup>2</sup> Front plate at bottom: Material iron Tensile strength 41-47 kg/cm<sup>2</sup>

Thickness 10 mm Lower back plate: Material iron Tensile strength 41-47 kg/cm<sup>2</sup> Thickness 10 mm

Pitch of stays at wide water space 100 mm Are stays fitted with nuts or riveted over

Working Pressure 7 kg/cm<sup>2</sup> Main stays: Material iron Tensile strength 41-47 kg/cm<sup>2</sup>

Diameter { At body of stay, 10 mm  
or 10 mm  
Over threads 10 mm No. of threads per inch 10 Area supported by each stay 100 mm<sup>2</sup>

Working pressure by Rules 7 kg/cm<sup>2</sup> Screw stays: Material iron Tensile strength 41-47 kg/cm<sup>2</sup>

Diameter { At turned off part, 10 mm  
or 10 mm  
Over threads 10 mm No. of threads per inch 10 Area supported by each stay 100 mm<sup>2</sup>



© 2020

Lloyd's Register  
Foundation

Working pressure by Rules  Are the stays drilled at the outer ends  Margin stays: Diameter  { At turned off part, or Over threads } Working pressure by Rules

No. of threads per inch  Area supported by each stay

Tubes: Material  External diameter  { Plain Stay } Thickness  No. of threads per inch

Pitch of tubes  Working pressure by Rules  Manhole compensation: Size of opening

shell plate  Section of compensating ring  No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends  Depth of flange if manhole flanged  Steam Dome: Material

Tensile strength  Thickness of shell  Description of longitudinal joint

Diameter of rivet holes  Pitch of rivets  Percentage of strength of joint  { Plate Rivets } No. and diameter

Internal diameter  Working pressure by Rules  Thickness of crown

stays  Inner radius of crown  Working pressure by Rules

How connected to shell  Size of doubling plate under dome  Diameter of rivet holes and

of rivets in outer row in dome connection to shell

Type of Superheater  Manufacturers of  { Tubes Steel forgings Steel castings } Internal diameter and thickness of tubes

Number of elements  Material of tubes  Tensile strength  Thickness  Can the superheater be shut off

Material of headers  the boiler be worked separately  Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Area of each safety valve  Are the safety valves fitted with easing gear  Working pressure as

Rules  Pressure to which the safety valves are adjusted  Hydraulic test pressure

tubes  forgings and castings  and after assembly in place  Are drain cocks

valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

The foregoing is a correct description,  
 signl. DEUTSCHE WERFT A.G. Manufacturer

Dates of Survey  { During progress of work in shops - - } Nov. 20. 25. 26. Dec. 14  Are the approved plans of boiler and superheater forwarded herewith  15. 12. 30. 9. 36

while building  { During erection on board vessel - - } 2/4. 3/5. 5/6. 8/6. 37  (If not state date of approval.) Total No. of visits 4 + 4

Is this Boiler a duplicate of a previous case  no  If so, state Vessel's name and Report No.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) *These Waste Heat Doubly Miller Riv't Systems have been constructed under Special Survey, the approved plans, and the Surveyor's letters. The materials used in the construction are of good quality and have been tested by the Port Surveyors. The workmanship is good. These W.H.D.B. Core System are eligible in my opinion for notation in the Port Reg Book with + D.B. pressure 100 lbs. when these D.B. have been satisfactorily fitted on board and tested under steam.*

*The 2 La Mout Boilers have been satisfactorily installed on board. During the vessels trial trip they have been tested under steam and found tight and in order. Their Safety Valves were found to be of sufficient rise and have been adjusted to 100 lbs of pressure. Thickness of adjusting washers*

Port 7.5 Z  
 Starb. 8.0 Z Pressure 25.6.1  
 R. Carstensen

Survey Fee ... RM 168.00  
 Travelling Expenses (if any) RM : 5.00

Hamburg  
 When applied for, 11. 11. 1937  
 When received, 9. 2. 1937

sign. H. SCHNEIDER.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  FRI 2 JUL 1937

Assigned *See other F. E. report*