

## REPORT ON BOILERS.

No. 1935

JUL 28 1937

Copied from Hamburg Rpt. 22238

Received at London Office

new completed Bremen

Bremen 23<sup>rd</sup> July 1937Date of writing Report 11<sup>th</sup> March 1937 When handed in at Local Office

19

Port of Hamburg - Bremen

No. in Surrey held at HAMBURG &amp; WESERMÜNDE

Date, First Survey 8<sup>th</sup> Jan. 1937Last Survey 18<sup>th</sup> Feb. 1937

40466 on the Single S. Vessel TAKORADIAN

(Number of Visits 10 + 4) Gross 5452 Tons Net 3106

Built at WESERMÜNDE

By whom built DESCHIMAG, WERK: SEEBECK

Yard No. 572 When built 1937

Engines made at BREMEN

By whom made DESCHIMAG, WERK: A.G. WESER

Engine No. 140/41 When made 1937

Boilers made at HAMBURG

By whom made DEUTSCHE WERFT A.G.

Boiler No. 696 When made 1937

Owners ELMINA CO LTD. ACCRA

Port belonging to FREETOWN

## VERTICAL DONKEY BOILER.

Made at Hamburg By whom made Deutsche Werft A.G. Boiler No. 696 When made 1937 Where fixed ENGINE ROOM

Manufacturers of Steel Mun. Schmiedefabrik Abt. Walzwerk Oberhausen

Total Heating Surface of Boiler

23 m<sup>2</sup>

Is forced draught fitted

yes

Coal or Oil fired oil

No. and Description of Boilers on Vertical Donkey Boiler

Working pressure 7 kg/cm<sup>2</sup>Tested by hydraulic pressure to 14 kg/cm<sup>2</sup>

Date of test

18. 2. 37

No. of Certificate 657

Area of Firegrate in each Boiler

no

No. and Description of safety valves to each boiler

two spring loaded

Area of each set of valves per boiler

per rule 1740 cm<sup>2</sup>  
as fitted 3150 cm<sup>2</sup>

Pressure to which they are adjusted 100 lbs

Are they fitted with easing gear

yes

State whether steam from main boilers can enter the donkey boiler

no

Smallest distance between boiler or uptake and bunkers

Is oil fuel carried in the double bottom under boiler

no

Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated

no

Largest internal dia. of boiler 1400 mm

Height 3325 mm

Shell plates: Material

P.M. Steel

Tensile strength

41-47 kg/cm<sup>2</sup>

Thickness

10 mm

Are the shell plates welded or flanged

flanged

Description of riveting: circ. seams

end single row

long. seams two rows

Dia. of rivet holes in

Pitch of rivets

Percentage of strength of circ. seams

plate 58.2%  
rivets 57.4%

of Longitudinal joint

plate 69.4%  
rivets 84.2%  
combined 81.0%Working pressure of shell by rules 7.95 kg/cm<sup>2</sup>

Thickness of butt straps

outer

inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat

yes

Material P.M. Steel

Tensile strength

41-47 kg/cm<sup>2</sup>

Thickness

12 mm

Radius

1120 mm

Working pressure by rules 8.75 kg/cm<sup>2</sup>

Description of Furnace: Plain, spherical, or dished crown

yes

Material P.M. Steel

Tensile strength 41-47 kg/cm<sup>2</sup>

Thickness

External diameter

top 1050 mm  
bottom 1150 mm

Length as per rule

1150 mm

Working pressure by rules 7.85 kg/cm<sup>2</sup>

Pitch of support stays circumferentially

and vertically

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Radius of spherical or dished furnace crown

Working pressure by rule

Thickness of Ogee Ring

15 mm

Diameter as per rule

D 1400 mm  
d 1150 mmWorking pressure by rule 7.85 kg/cm<sup>2</sup>

Combustion Chamber: Material

P.M. Steel

Tensile strength

41-47 kg/cm<sup>2</sup>

Thickness of top plate

15 mm

Diameter if dished

1120 mm

Working pressure by rule 11.1 kg/cm<sup>2</sup>

Thickness of back plate

15 mm

Diameter if circular 1150 mm

Length as per rule

1150 mm

Pitch of stays 180 x 180 mm

Are stays fitted with nuts or riveted over fitted with nuts

Diameter of stays over thread

26.17 mm

Working pressure of back plate by rules

10.4 kg/cm<sup>2</sup>

Stay Plates: Material

front P.M. Steel

back P.M. Steel

Tensile strength

41-47 kg/cm<sup>2</sup>

Thickness

18 mm

Mean pitch of stay tubes in nests 178/267 mm

Comprising shell, Dia. as per rule

front

back

Pitch in outer vertical rows

89 mm

Dia. of tube holes FRONT

stay 70 mm

plain 63.5 mm

BACK

stay 63.5 mm

plain 63.5 mm

Each alternate tube in outer vertical rows a stay tube

Working pressure by rules

front 9.56 kg/cm<sup>2</sup>back 9.56 kg/cm<sup>2</sup>

Stays to combustion chamber tops: Material

Tensile strength

Diameter and thickness of girder at centre

Length as per rule

Distance apart

No. and pitch of stays in each

Working pressure by rule

003525-003532-0267

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Crown stays: Material ☒ Tensile strength ☒ Diameter ☒ at body of stay, ☒ or over threads, ☒

No. of threads per inch ☒ Area supported by each stay ☒ Working pressure by rules ☒

Screw stays: Material *P. M. Steel* Tensile strength *41-47 kg/cm<sup>2</sup>* Diameter ☒ at turned off part, *23.17* ☒ or over threads, *16.77* ☒ No. of threads per inch *9*

Area supported by each stay *62500* Working pressure by rules *on appr.* Are the stays drilled at the outer ends ☒

Tubes: Material *P. M. Steel* External diameter ☒ plain *63.5* ☒ stay *70* ☒ Thickness ☒ *3.25* ☒ *8.00* ☒

No. of threads per inch *9* Pitch of tubes *89/89* ☒ Working pressure by rules *12.5 kg/cm<sup>2</sup>*

Manhole Compensation: Size of opening in shell plate *300/400* ☒ Section of compensating ring *600/700/20* ☒ No. of rivets and diameter ☒

of rivet holes *27 rivets, 20* ☒ Outer row rivet pitch at ends *135* ☒ Depth of flange if manhole flanged ☒

Uptake: External diameter ☒ Thickness of uptake plate ☒

Cross Tubes: No. ☒ External diameters ☒ Thickness of plates ☒

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

The foregoing is a correct description,

*DEUTSCHE WERFT*

*sign*

Manufacture

Dates of Survey ☒ During progress of work in shops - *8<sup>th</sup>/14<sup>th</sup>/20<sup>th</sup>/23<sup>rd</sup>/30<sup>th</sup> January*  
☒ During erection on board vessel - *1<sup>st</sup>/6<sup>th</sup>/8<sup>th</sup>/17<sup>th</sup>/18<sup>th</sup> February 1937*

Is the approved plan of boiler forwarded herewith *2.10.36*  
 (If not state date of approval)

Total No. of visits *10 + 4*

Is this Boiler a duplicate of a previous case *yes*

If so, state Vessel's name and Report No. *GAMBIAN*

B.M.N. 1525  
 HAM. 22277

## GENERAL REMARKS

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

*Material and workmanship*

*of this vertical Donkey boiler are of good quality. The materials used in its construction are as works recognized by the Committee and tested by the Port Engineer in accordance with the requirements of the Rules. This Donkey boiler having been made under Special Survey in conformity with the approved plan, the Punsersgillen and otherwise in compliance with the requirements of the Rules, is eligible in my opinion to be classed in the Port Reg. Book with the notation + DB. pressure 7 kg/cm<sup>2</sup>. This Donkey Boiler has been shipped to Wismünde where it will be fitted on board of the vessel 40572 now under construction.*

*Bremen 23.7.37 This Donkey Boiler has been satisfactorily installed on board, tested under steam, and its safety valves have been correctly adjusted to 100 lbs of pressure.*

*Thickness of adjusting washers:*

*for 7.5 mm*

*4/4 9. mm*

*A. Cantmann*

Survey Fee

*RM 84.00*

When applied for, *12<sup>th</sup> March 1937*

Travelling Expenses (if any)

*5.00*

When received, *13.4 1937*

*sign. H. SCHLOTHAUER*

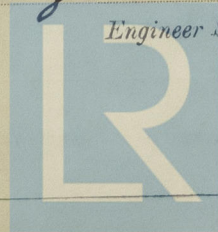
Engineer Surveyor to Lloyd's Register of Shipping.

FRI 6 AUG 1937

Committee's Minute

Assigned

*See Bmn 1935*



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