

5b.

REPORT ON BOILERS.

No. 22237

17 MAR 1937

Received at London Office

Date of writing Report 11th March 1937 When handed in at Local Office

Port of Hamburg

No. in Survey held at
g. Book

Hamburg

Date, First Survey 8th JanuaryLast Survey 1st February

1937

on the

GAMBIAN

(Number of Visits 8)

Gross
Tons
Net

Built at Wesermünde

By whom built Deschimag "Sebeck" Wesermünde Yard No. 571 When built 1937

Engines made at

By whom made

Engine No.

When made

Boilers made at Hamburg

By whom made Messrs. Deutsche Werft A.G. Boiler No. 695. When made 1937

Owners

Port belonging to

VERTICAL DONKEY BOILER.

Made at Hamburg By whom made Messrs. Deutsche Werft A.G. Boiler No. 695. When made 1937 Where fixed

Manufacturers of Steel Messrs. Gütchhoffnungs-hütte A.G. Walsenroth Oberhausen

Total Heating Surface of Boiler

23 m²

Is forced draught fitted yes

Coal or Oil fired Oil

No. and Description of Boilers

one Vertical Donkey Boiler

Working pressure 7 kgs/sq cm

Tested by hydraulic pressure to

14 kgs/sq cm

Date of test 1-2-37

No. of Certificate 655

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler 1; two spring loaded

Area of each set of valves per boiler

per rule 1740 mm²
as fitted 2150 mm²

Pressure to which they are adjusted

Are they fitted with easing gear

State whether steam from main boilers can enter the donkey boiler

no

Smallest distance between boiler or uptake and bunkers

or woodwork

Is oil fuel carried in the double bottom under boiler

Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated

Largest internal dia. of boiler 1400 mm Height 3325 mm

Shell plates: Material

S.M. Steel

Tensile strength 41-47 kgs/sq mm

Thickness

10 mm

Are the shell plates welded or flanged

flanged

Description of riveting: circ. seams

end single row
inter.

long. seams two rows.

Dia. of rivet holes in

circ. seams 20 mm
long. seams 20 mm

Pitch of rivets

48 mm
65.5 mm

Percentage of strength of circ. seams

plate 58.3%
rivets 57.4%

of Longitudinal joint

plate 69.4%
rivets 84.2%
combined 81%

Working pressure of shell by rules

7.95 kgs/sq cm

Thickness of butt straps

outer
inner

Shell Crown:

Whether complete hemisphere, dished partial spherical, flat

yes

Material S.M. Steel.

Tensile strength 41-47 kgs/sq mm

Thickness 12 mm

Radius 1120 mm

Working pressure by rules 8.75 kgs/sq cm

Description of Furnace:

Plain, spherical, dished crown yes

Material S.M. Steel

Tensile strength 41-47 kgs/sq mm

Thickness 15 mm

External diameter

top 1050 mm
bottom 1150 mm

Length as per rule 1150 mm

Working pressure by rules 7.85 kgs/sq cm

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 mm

Working pressure by rule 7.85 kgs/sq cm

Combustion Chamber: Material

S.M. Steel

Tensile strength 41-47 kgs/sq cm

Thickness of top plate 15 mm

Radius if dished 1120 mm

Working pressure by rule 11.1 kgs/sq cm

Thickness of back plate 15 mm

Diameter if circular 1150 mm

Length as per rule 1150 mm

Pitch of stays 180/180 mm

Are stays fitted with nuts or riveted over filled with nuts

Diameter of stays over thread

26/17 mm

Working pressure of back plate by rules 10.4 kgs/sq cm

Tube Plates: Material

front S.M. Steel
back S.M. Steel

Tensile strength

41-47 kgs/sq mm
41-47 kgs/sq mm

Thickness

18 mm
18 mm

Mean pitch of stay tubes in nests

178/267 mm

If comprising shell, Dia. as per rule

front
back

Pitch in outer vertical rows

89 mm
89 mm

Dia. of tube holes FRONT

stay 70 mm
plain 63.5 mm

BACK

stay 63.5 mm
plain 63.5 mm

Is each alternate tube in outer vertical rows a stay tube

✓

Working pressure by rules

front 9.56 kgs/sq cm
back 9.56 kgs/sq cm

Girders to combustion chamber tops: Material

✓

Tensile strength

Depth and thickness of girder at centre

✓

Length as per rule

Distance apart

✓

No. and pitch of stays in each

✓

Working pressure by rule

© 2020

Lloyd's Register
Foundation

003421-003428-0252

PILLARS, No.

" " in "

" " in "

" " in "

Centre Lin

Stiffeners

Plating, th

" " in "

STRINGERS

Upper mos

Stringer l

" " in "

Thicknes

Thickne

in wa

Thickne

If Shea

Second

Stringe

STR

LAT PL

" " in "

OTTOM I

of Stra

ILGE PL

Strake

IDE PL

Strake

PPER]

strake

PPER]

strake

TRAKE

strake

TRAKE

strake

OOP Si

BRIDGE

OREC

otal

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 S.M. Steel Tensile strength 41-47 kgs/sq mm Diameter at turned off part 23.7 mm or over threads 26.7 mm No. of threads per inch 9

Area supported by each stay 62500 Working pressure by rules as approved Are the stays drilled at the outer ends no

Tubes: Material S.M. Steel External diameter plain 63.5 mm stay 70 mm Thickness 3.25 mm 8.00 mm

No. of threads per inch 9 Pitch of tubes 89/89 mm Working pressure by rules 12.5 kgs/sq cm

Manhole Compensation: Size of opening in shell plate 300/400 mm Section of compensating ring 600/200/20 mm No. of rivets and diam

of rivet holes 27 rivets 20 mm φ Outer row rivet pitch at ends 135 mm 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

AKTIENGESELLSCHAFT

Manufactur

Dates of Survey During progress of work in shops - 8 11 14 14 20 22 21 23 30 4 January Is the approved plan of boiler forwarded herewith 2. 10. 1936 (If not state date of approval.)

while building During erection on board vessel - 14 February 1937

Total No. of visits 8

GENERAL REMARKS

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

Material and workmanship of this ver donkey boiler are of good quality. The materials used in it's construction are at work recognised by the Committee and tested by the Society's Surveyors in accordance with the requirements of the Rules. This donkey boiler having been made under Special Survey in conformity with approved plan, the Secretary's Letter and otherwise in compliance with the requirements of the Rules is eligible in my opinion to be classed in the Society's Register Book with the notation: - +D.B. pressure 7 kgs/sq.cm. This donkey boiler has been shipped to Flensburg where it will be fitted on of the vessel No 571 now under construction; -

Survey Fee ... Rm 84.00 : When applied for 12.4 March 1937

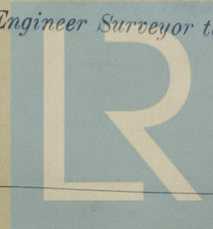
Travelling Expenses (if any) Rm 5.00 : When received 16.4 1937

H. Pohlthaler

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 2 JUL 1937

Assigned See Bmn 1935



Lloyd's Register
Foundation