

This report includes copy of Hamburg Rpt. 17044.

pt. 5b.

REPORT ON BOILERS.

No. 8341

15 APR 1929

Received at London Office

Date of writing Report

19

When handed in at Local Office

3/4/

10 29 Port of

Trieste

No. in Reg. Book

Survey held at

Hamburg & Trieste

Date, First Survey

16/2/29

Last Survey

25/3/

19 29

90126

on the

Donkey boilers on "FUSIJAMA"

(Number of Visits)

four

Tons

Gross

6669

Net

4196

Build at

Trieste

By whom built

Stabilimenti Tecnici Triestini

Yard No. 773

When built

1929

Engines made at

Trieste

By whom made

do.

Engine No.

5115
5119

When made

1929

Boilers made at

✓

By whom made

✓

Boiler No. ✓

When made ✓

Owners

Lloyd's Trieste

Port belonging to

Trieste

VERTICAL DONKEY BOILER.

Made at

Hamburg

By whom made

Deutsche Luft A.G.

Boiler No. 234

When made

1936

Where fixed

Starboard side engine room forward end.

Manufacturers of Steel

Hess & Söhne, Maschinenbau, G.m.b.H. of Oberhausen.

Total Heating Surface of Boiler

15 m²

Is forced draught fitted

no

Coal or Oil fired

oil fired

No. and Description of Boilers

one vertical multitubular donkey boiler

Working pressure

100 lbs/10'

Tested by hydraulic pressure to

200 lbs = 14 kg/cm²

Date of test

13th September 1936.

No. of Certificate

443

Area of Firegrate in each Boiler

✓

No. and Description of safety valves to each boiler

two spring loaded.

Area of each set of valves per boiler

per rule 1134 mm²
as fitted 1134 mm²

Pressure to which they are adjusted

100 lbs/10'

Are they fitted with easing gear

yes.

State whether steam from main boilers can enter the donkey boiler

✓

Smallest distance between boiler or uptake and bunkers

or woodwork

✓

Is oil fuel carried in the double bottom under boiler

no

Smallest distance between base of boiler and tank top plating

3 feet.

Is the base of the boiler insulated

no

Largest internal dia. of boiler

1200 mm.

Height 2650 mm.

Shell plates: Material

steel

Tensile strength 34-41 Kg.

Thickness

9 mm.

Are the shell plates welded or flanged

flanged

Description of riveting: circ. seams

end 1/4 angle
bottom 1/4 angle

long. seams

1/4 double.

Dia. of rivet holes in

circ. seams 20 mm.
long. seams 20 mm.

Pitch of rivets

49 mm.
65 mm.

Percentage of strength of circ. seams

plate 59%
rivets 64%

of Longitudinal joint

plate 69%
rivets 97%
combined

Working pressure of shell by rules

8.4 kg/cm²

Thickness of butt straps

outer ✓
inner

Shell Crown:

Whether complete hemisphere, dished partial spherical, or flat

dished partial spherical

Material steel

Tensile strength

34-41 Kg.

Thickness

12.5 mm.

Radius

1200 mm.

Working pressure by rules

8.3 kg/cm²

Description of Furnace:

Plain, spherical, or dished crown

partial spherical

Material steel

Tensile strength

34-41 Kgs.

Thickness

16.5 mm.

External diameter

top 900 mm.
bottom 1000 mm.

Length as per rule

950 mm.

Working pressure by rules

8.8 kg/cm²

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

1200 mm.

Working pressure by rule

8.6 kg/cm²

Thickness of Ogee Ring

12 mm.

Diameter as per rule

D 1200
a 1000

Working pressure by rule

7.2 kg/cm²

Combustion Chamber: Material

✓

Tensile strength

Thickness of top plate

Radius if dished

Working pressure by rule

Thickness of back plate

Diameter if circular

Length as per rule

Pitch of stays

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Working pressure of back plate by rules

Tube Plates: Material

front steel
back steel

Tensile strength

34-41 Kg.
34-41 Kg.

Thickness

18 mm.
18 mm.

Mean pitch of stay tubes in nests

340 x 170 mm.

If comprising shell, Dia. as per rule

front 900 mm.
back

Pitch in outer vertical rows

65%

Dia. of tube holes FRONT

stay 67%
plain 67%

BACK

stay 67%
plain 65%

Is each alternate tube in outer vertical rows a stay tube

✓

Working pressure by rules

front 8.2 kg/cm²
back 8.2 kg/cm²

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

Is a Report also sent on the Hull of the Ship?

[Im. 3.25 - Copyable Ink.]

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 ☒ Tensile strength _____ Diameter { at turned off part, _____ or over threads _____

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

Tubes: Material *mild steel seamless drawn* External diameter { plain *63.5 mm.* stay *63.5 mm.* Thickness { *13 mm.* *8 mm.*

No. of threads per inch *10* Pitch of tubes *85 mm.* Working pressure by rules *9 Kgp.* Are the stays drilled at the outer ends _____

Manhole Compensation: Size of opening in shell plate *280/380 mm.* Section of compensating ring *670 x 570* No. of rivets and diameter _____

of rivet holes *28 rivets of 20 mm dia.* Outer row rivet pitch at ends *125 mm.* Depth of flange if manhole flanged ☒

Uptake: External diameter *80 mm.* Thickness of uptake plate *4 mm.*

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

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *Yes.*

The foregoing is a correct description,
Deutsche Loerft
Aktiengesellschaft Manufacturer.

Dates of Survey { During progress of work in shops - *6/1/26, 19.7.26, 17.8.26, 21.8.26, 13.9.26, 17.9.26.* 22.9.26

while building { During erection on board vessel - *16/2/29, 26/2/29, 7/3/29, 25/3/29*

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

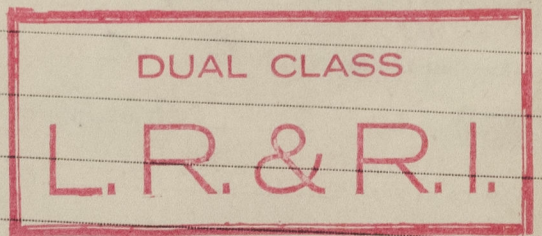
Total No. of visits *7 + 4*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These four donkey boilers has been built under special survey, in accordance with the approved plan, the Secretary's letter E 29.3.26, and otherwise in conformity with the requirements of the Rules. and the materials and workmanship are of good quality. The materials used in the construction are made at works recognised by the Committee and tested in accordance with the Rules by the Society's surveyors. When tested by hydraulic pressure to 200 lbs/sq. inch these donkey boilers was found to be tight and sound in every respect and shows no signs of weakness. ^{It is} They are eligible in my opinion, for certification of **N.D.B.** When examined under steam and ^{its} safety valves have ^{been} adjusted under steam to 100 lbs pressure.*

No 237.
 No 443.
 LLOYD'S TEST.
 200 lbs.
 W.P. 100 lbs.
 A.C. 13.9.26

The boiler bearing this mark has been fitted on board this vessel. It has been securely fitted in place, examined under steam, and its safety valves have been adjusted under steam to lift at 100 lbs/sq. inch.

(See Steam Report on boiler 17044.)



Survey Fee *charged at Hamburg* : _____ When applied for, _____ 19 _____

Travelling Expenses (if any) £ : _____ When received, _____ 19 _____

Signed *A. Christensen*
V. Lockney.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____
 Assigned *TUE. 23 APR 1929*
S.B. 100 lbs

