

REPORT ON BOILERS.

No. 16818

Received at London Office 13 MAY 1926

Survey Report 39 May 1926 When handed in at Local Office

19

Port of HAMBURG

Survey held at

Kiel

Date, First Survey

1st Septemb. 25

Last Survey

20th April 1926

on the Steel Twin Sc. M.S. "THALIA"

(Number of Visits)

Gross 8745
Net 5026

made at Kiel

By whom built

HOWALDTSWERKE

Yard No. 673

When built 1926

made at WINTERTHUR

By whom made

GEZ. SULZER

Engine No. 5167

When made 1926

made at Kiel

By whom made

HOWALDTSWERKE

Boiler No. 1412
1413
1418

When made 1926

BALTISCH-AMERIKANISCHE PETROL IMP. G. m. b. H. Port belonging to

DANZIG

TICAL DONKEY BOILER.

made at Kiel By whom made Howaldtswerke

Boiler No. 1418

When made 1926

Where fixed (closed, open, mud, etc., room, etc.)

Manufacturers of Steel

Gutehoffnungshütte - Oberhausen

Heating Surface of Boiler

22 sq. m.

Is forced draught fitted

yes

Coal or Oil fired

oil

Description of Boilers

1 Vertical Donkey Boiler for Heating Purposes

Working pressure 5 kg/cm² (71 lb)

by hydraulic pressure to

10 kg/cm² (142 lb)

Date of test

11. 12. 25

No. of Certificate 404

No. and Description of safety valves to each boiler

2 Spring loaded

of each set of valves per boiler

per rule 2690 mm
as fitted 2927 mm

Pressure to which they are adjusted 5 kg/cm² (71 lb)

Are they fitted with easing gear

yes

whether steam from main boilers can enter the donkey boiler

no

non return valve fitted Smallest distance between boiler or uptake and bunkers

work 2600 mm

Is oil fuel carried in the double bottom under boiler

no

Smallest distance between base of boiler and tank top plating

1100 mm

Is the base of the boiler insulated

no

Largest internal dia. of boiler 1350 mm

Height 3323 mm

plates: Material

Steel

Tensile strength

44-50 kg/cm²

Thickness

11 mm

the shell plates welded or flanged

flanged

Description of riveting: circ. seams

end: lap, single
inter: butt, double

long. seams lap, double

of rivet holes in

circ. seams 23 mm
long. seams 23 mm

Pitch of rivets

top: 56 mm
bottom: 76 mm
69 mm

Percentage of strength of circ. seams

plate: 59%
butt: 69.8%
rivets: 55.2% of Longitudinal joint
butt: 81.2%

plate 66.6%
rivets 89.5%
combined 78.2%

working pressure of shell by rules

10.5 kg/cm²

Thickness of butt straps

outer
inner

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

Material

Steel

tensile strength 41-47 kg/cm²

Thickness

14 mm

Radius 1350 mm

Working pressure by rules

8.56 kg/cm²

Description of Furnace: Plain, spherical, or dished crown partial spherical

Material

Steel

Tensile strength

41 kg/cm²

thickness 13 mm

External diameter

top: 1120 mm
bottom: 1164 mm

Length as per rule 1075 mm

Working pressure by rules

7.92 kg/cm²

ch of support stays circumferentially

and vertically

Are stays fitted with nuts or riveted over

yes

diameter of stays over thread

Radius of spherical or dished furnace crown

1100 mm

Working pressure by rule

7.44 kg/cm²

thickness of Ogee Ring

13 mm

Diameter as per rule

D 1164 mm
d 1324 mm

Working pressure by rule

6.96 kg/cm²

combustion Chamber: Material

Steel

Tensile strength

41 kg/cm²

Thickness of top plate

14 mm

radius if dished

1100 mm

Working pressure by rule

7.44 kg/cm²

Thickness of back plate

13 mm

Diameter if circular

1120 mm

length as per rule

2135 mm

Pitch of stays

circumferential: 182 mm
longitudinal: 320 mm

Are stays fitted with nuts or riveted over

riveted over

diameter of stays over thread

38 mm

Working pressure of back plate by rules

7.68 kg/cm²

Tube Plates: Material

front: Steel
back: Steel

Tensile strength

41-47 kg/cm²

Thickness

18 mm

Mean pitch of stay tubes in nests

270 mm

comprising shell, Dia. as per rule

front: 1200 mm
back: 1200 mm

Pitch in outer vertical rows

270 mm

Dia. of tube holes

FRONT: stay 64 mm
plain 65 mm

BACK: stay 60 mm
plain 60 mm

each alternate tube in outer vertical rows a stay tube

no

Working pressure by rules

front: 10.1 kg/cm²
back: 11.5 kg/cm²

orders to combustion chamber tops: Material

Tensile strength

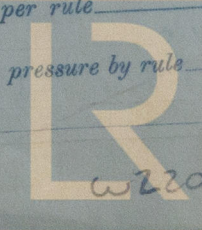
Length as per rule

Depth and thickness of girder at centre

Working pressure by rule

Distance apart

No. and pitch of stays in each



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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 _____ Tensile strength _____ Diameter { at turned off part, _____
 or _____
 over threads _____ No. of threads per inch _____
 Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____
Tubes: Material *Seamless Mild Steel* ✓ External diameter { plain *65 in.* ✓ Thickness { *3 in.* ✓
 stay *60 in.* ✓
 No. of threads per inch *9* ✓ Pitch of tubes *20 in.* ✓ Working pressure by rules *969* ✓
Manhole Compensation: Size of opening in shell plate *300 x 400 in.* ✓ Section of compensating ring _____ No. of rivets and diameter _____
 of rivet holes _____ Outer row rivet pitch at ends _____ Depth of flange if manhole flanged *85 in.* ✓
Uptake: External diameter _____ Thickness of uptake plate _____
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,

HOWALDTSWERKE

Manufacturer.

Dates of Survey { During progress of work in shops - *19-11/9-2/10-9/10-3/11-17/11-11/12/26* Is the approved plan of boiler forwarded herewith *Yes* *Rep. 16532.*
 while building { During erection on board vessel - *5/2-18/2-2/3-16/3-3/3-20/4/26* (If not state date of approval.)
 Total No. of visits *13*

GENERAL REMARKS

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

Material and workmanship of this Donkey Boiler are of good quality. The materials used in the construction is made at works recognised by the Committee and tested in accordance with the requirements of the Rules. This Donkey Boiler having been built under Special Survey in accordance with the approved plan, the Secretary's Letter and otherwise in conformity with the requirements of the Rules is eligible in my opinion for record of 'N.B.B.-26'

Survey Fee £ *4. : 4. :*
 Travelling Expenses (if any) £ : :

When applied for, *19 May 1926*
 When received, *7. 16. 1926*

Friedrich Hill

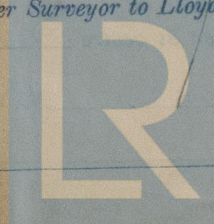
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 18 MAY 1926

Assigned

See E. rpt attached



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