

REPORT ON BOILERS.

No. 10239

20 MAY 1935

Received at London Office

Date of writing Report 16th May 1935When landed in at Local Office 17th May 1935

Port of GOTHENBURG

No. in Survey held at

GOTHENBURG

Date, First Survey 7th Nov. 1934Last Survey 8th May 1935

(Number of Visits) 2

Gross 8248

Tons Net 4985

Master

Built at GOTHENBURG

By whom built ERIKBERGS M.V. AB.

Yard No. 258

When built 1935-5

Engines made at

GOTHENBURG

By whom made ERIKBERGS M.V. AB.

Engine No. 143

When made 1935

Boilers made at

GOTHENBURG

By whom made ERIKBERGS M.V. AB.

Boiler No. 574.575

When made 1935

Nominal Horse Power

644

Owners SKIBS A/S ACADIA

Port belonging to OSLO.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Plates:- The Steel Company of Scotland, Limited, Glasgow.

Manufacturers of Steel

Stays:- The Scottish Tube Co. Limited, Glasgow.

Total Heating Surface of Boilers

8x130 = 260 sq. metres [2800 sq. ft.]

Is forced draught fitted No

Coal or Oil fired *Oil fired*

No. and Description of Boilers

Two cylindrical multitubular.

Working Pressure 10 kg/cm² [142 lb/sq. in.]

Tested by hydraulic pressure to

18.6 kg/cm²

Date of test 2/2/35

No. of Certificate 267 & 268

Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler Double spring loaded.

Diam

of each set of valves per boiler

per Rule 68 mm

as fitted 85 mm

Pressure to which they are adjusted 142 lb/sq. in. Are they fitted with easing gear Yes.

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

No main boilers fitted.

Smallest distance between boilers

and AP bulkhead (oil fuel) on uptakes and bunkers or woodwork

1000 mm

Is oil fuel carried in the double bottom under boilers No.

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated Yes.

Largest internal dia. of boilers

3352 mm

Length 3350 mm

Shell plates: Material S.M. steel Tensile strength As per Rule

Thickness

19 mm

Are the shell plates welded or flanged No

Description of riveting: circ. seams *Double riv. lap*

long. seams

Double butt straps

Diameter of rivet holes in

circ. seams 27 mm

long. seams 23.8 mm

Pitch of rivets

79.5 mm

155 mm

Percentage of strength of circ. end seams

plate 66

rivets 62.1

Percentage of strength of circ. intermediate seam

plate 84.7

rivets 92.5

Percentage of strength of longitudinal joint

plate 84.7

rivets 92.5

combined 92.6

Working pressure of shell by Rules 10.1 kg/cm²

Thickness of butt straps

outer 14.5 mm

inner 17.5 mm

No. and Description of Furnaces in each Boiler Two Morrison.

Material

S.M. steel

Tensile strength As per Rule

Smallest outside diameter 990 mm

Length of plain part

top

bottom

Thickness of plates

crown 10 mm

bottom

Description of longitudinal joint Lap welded.

Dimensions of stiffening rings on furnace or c.e. bottom

Working pressure of furnace by Rules 10.8 kg/cm²

End plates in steam space: Material

S.M. steel

Tensile strength As per Rule

Thickness 20 mm

Pitch of stays 405 x 350 mm

How are stays secured

Nuts inside, washers & nuts outside

Working pressure by Rules 10.75 kg/cm²

Tube plates: Material

front S.M. steel

back S.M. steel

Tensile strength

As per Rule

Thickness

20 mm

21 mm

Mean pitch of stay tubes in nests

276 mm

Pitch across wide water spaces

330 mm

Working pressure

front 11.8 kg/cm²back 14.6 kg/cm²

Girders to combustion chamber tops: Material

S.M. steel

Tensile strength As per Rule

Depth and thickness of girder

at centre

175 x 2 x 16 mm

Length as per Rule

735 mm

Distance apart

205 mm

No. and pitch of stays

in each

Two 225 mm

Working pressure by Rules 10.6 kg/cm²

Combustion chamber plates: Material S.M. steel

Tensile strength

As per Rule

Thickness: Sides 16 mm

Back 18 mm

Top 16 mm

Bottom 16 mm

Pitch of stays to ditto: Sides

225 x 240 mm

Back 241 x 212 mm

Top 225 x 205 mm

Are stays fitted with nuts or riveted over *nuts fitted to stays on top and side plating and on part of main stays on shell plating*

Working pressure by Rules

10.4 kg/cm²

Front plate at bottom: Material S.M. steel

Tensile strength As per Rule

Thickness

20 mm

Lower back plate: Material S.M. steel

Tensile strength As per Rule

Thickness 20 mm

Pitch of stays at wide water space

390 mm

Are stays fitted with nuts or riveted over *Fitted with nuts*

Working Pressure

10. kg/cm²

Main stays: Material S.M. steel

Tensile strength 46.4-45.8 kg/mm²

Diameter

At body of stay, or over threads

2 1/4"

No. of threads per inch 6

Area supported by each stay 142000 mm²

Working pressure by Rules

11.6 kg/cm²

Screw stays: Material S.M. steel

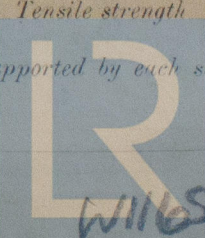
Tensile strength 44.2-50.1 kg/mm²

Diameter

At turned off part, or over threads

1 1/2"

No. of threads per inch 9

Area supported by each stay 512000 mm²Lloyd's Register
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* The Boiler Certificate number 267 has also been taken & the boiler is attached to the ship on that vessel.
Stamped on the boiler 17 May 1935

Working pressure by Rules *11.0 kg* Are the stays drilled at the outer ends *No* Margin stays: Diameter { At turned off part, or Over threads *1 5/8"* ✓
No. of threads per inch *9* Area supported by each stay *58300 mm²* Working pressure by Rules *11.8 kg/cm²*
Tubes: Material *wrought iron* External diameter { Plain *2 1/2"* ✓ Thickness *LSG 10* ✓ No. of threads per inch
Pitch of tubes *285 x 267 mm* Working pressure by Rules *11.6 kg/cm²* Manhole compensation: Size of opening
shell plate *425 x 525 mm* Section of compensating ring *270 x 25 mm* No. of rivets and diameter of rivet holes *40 rivets, 1 1/16"*
Outer row rivet pitch at ends *175 mm* Depth of flange if manhole flanged *50 mm* 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 ✓
Internal diameter ✓ Working pressure by Rules ✓ Thickness of crown ✓ No. and diameter of
stays ✓ Inner radius of crown ✓ Working pressure by Rules ✓
How connected to shell ✓ Size of doubling plate under dome ✓ Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell ✓
Type of Superheater ✓ Manufacturers of { Tubes ✓ Steel castings ✓
Number of elements ✓ Material of tubes ✓ Internal diameter and thickness of tubes ✓
Material of headers ✓ Tensile strength ✓ Thickness ✓ Can the superheater be shut off and
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 per
Rules ✓ Pressure to which the safety valves are adjusted ✓ Hydraulic test pressure
tubes ✓, castings ✓ and after assembly in place ✓ Are drain cocks or 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 *yes*

The foregoing is a correct description,

Eriksbergs Mek. Verkstads Aktiebolag Manufacturer

Dates of Survey { During progress of *1934 Nov. 7, 15, 28, Dec. 12, 17, 20, 1935 Jan. 9, 21, 28 Feb. 2* Are the approved plans of boiler and superheater forwarded herewith *to 29/5/34*
while building { During erection on *1935: April 9 May 8.* (If not state date of approval.)
board vessel - - - Total No. of visits *12*

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

These Donkey Boilers have been built under special survey in accordance with approved plan and Society's Rules.

The workmanship is good.

The material as per test sheets attached.

The boilers are marked:

*N^o 267 & 268
LLOYD'S TEST 18.6 kg.
H.P. 10 kg.
S.A. 2. 2. 35.*

Survey Fee ... *340:00.*

When applied for, *17th May 1935*

Travelling Expenses (if any) £

When received, *7.6 192 35 7/16*

G. Brander
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 4 JUN 1935

Assigned

See fol SE 10239



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