

REPORT ON BOILERS.

Got. 1. 8030.

No. 13981

23 AUG 1930

21 FEB 1930

Got. 21. 8. 1930.

Received at London Office

Date of writing Report

19. 2. 30

When handed in at Local Office

19. 2. 30

Port of

MIDDLESBROUGH.

No. in Survey held at
Reg. Book.

STOCKTON

Gothenburg

Date, First Survey

26 Nov/29

Last Survey

19. 2. 30

87706 on the

boiler for Aktiebolag Gotaverken

Steel Twin Low Motormount

"VELMA"

Tons

Gross 9720
Net 5861

Master

Built at

Gothenburg

By whom built

AB. Gotaverken

Yard No.

432

When built

1930

Engines made at

Gothenburg

By whom made

AB. Gotaverken

Engine No.

887

When made

1930

Boiler made at

Stockton

By whom made

Riley Bros. (Boilermakers) Ltd

Boiler No.

5944

When made

1930

Nominal Horse Power

Owners

Skibs A/S. Nordheim

Port belonging to

Oslo.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Wilkowitzer Bergbau- und Eisenhütten-Gesellschaft

(Letter for Record S.)

Total Heating Surface of Boilers

1415 sq. ft.

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

1 S.B.

Working Pressure 180 lbs.

Tested by hydraulic pressure to

320 lbs.

Date of test

19. 2. 30

No. of Certificate

6766.

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

Oil fired

No. and Description of safety valves to each boiler

Double spring loaded

Area of each set of valves per boiler

per Rule

as fitted

3"

Pressure to which they are adjusted

185 lbs.

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.

Smallest distance between boilers or uptakes and

AP (oil tank) bulkhead

25"

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

11' 8"

Length

11' 3"

Shell plates: Material

Steel

Tensile strength

29/33

Thickness

15"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end

D.R.

long. seams

T.R.D.B.S. (Snicels)

Diameter of rivet holes in

circ. seams

1 1/2"

Pitch of rivets

3 1/2"

inter.

7 1/16"

Percentage of strength of circ. end seams

plate

65.1

rivets

42.5

Percentage of strength of circ. intermediate seam

plate

86

Percentage of strength of longitudinal joint

plate

86

rivets

86.7

combined

Working pressure of shell by Rules

181 lbs.

Thickness of butt straps

outer

3/4"

inner

7/8"

No. and Description of Furnaces in each Boiler

2 C.F.

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3' 7 3/8"

Length of plain part

top

bottom

9"

Thickness of plates

crown

7/16"

Description of longitudinal joint

Weld.

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

Working pressure of furnace by Rules

188 lbs.

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

7/8"

Pitch of stays

16 1/2" x 14"

How are stays secured

D.N.W.

Working pressure by Rules

180 lbs.

Tube plates: Material

front

back

Steel

Tensile strength

26/30

Thickness

7/8"

Mean pitch of stay tubes in nests

10 1/16"

Pitch across wide water spaces

13' x 7"

Working pressure

front

233 lbs.

back

273

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

at centre

7 1/2" x 3/4" (double)

Length as per Rule

2' 6"

Distance apart

8 1/2"

No. and pitch of stays

in each

2-9"

Working pressure by Rules

187 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

11"

Back

11"

Top

11"

Bottom

11"

Pitch of stays to ditto: Sides

10" x 9"

Back

10" x 9"

Top

8 1/2" x 9"

Are stays fitted with nuts or riveted over

nuts.

Working pressure by Rules

182 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

7/8"

Pitch of stays at wide water space

13" x 9"

Are stays fitted with nuts or riveted over

nuts.

Working Pressure

229 lbs.

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay,

or

Over threads

2 1/2"

No. of threads per inch

6.

Area supported by each stay

226 sq. in.

Working pressure by Rules

196 lbs.

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

At turned off part,

or

Over threads

1 3/4"

No. of threads per inch

9

Area supported by each stay

87.6 sq. in.

005098-005106-0194

Lloyd's Register
Foundation

Working pressure by Rules **207 1/2** Are the stays drilled at the outer ends **no.** Margin stays: Diameter { At turned off part, **1 3/8** ✓
or Over threads **1 3/8** ✓

No. of threads per inch **9.** ✓ Area supported by each stay **100.7** ✓ Working pressure by Rules **211 1/2** ✓

Tubes: Material **iron** ✓ External diameter { Plain **2 1/2** ✓ 1: **2 3/4** ✓ Thickness { **9/16** ✓ No. of threads per inch **9.** ✓
Stay **2 1/2** ✓ 1: **2 3/4** ✓

Pitch of tubes **3 3/4" x 3 1/2"** ✓ Working pressure by Rules **p. 230 1/2, s. 235 1/2** ✓ Manhole compensation: Size of opening **48-1 1/2** ✓

shell plate **20" x 16"** ✓ Section of compensating ring **8" x 1 1/2"** ✓ No. of rivets and diameter of rivet holes **48-1 1/2** ✓

Outer row rivet pitch at ends **8 3/4"** ✓ Depth of flange if manhole flanged _____

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.**

RILEY BROS. (BOILERMAKERS) LIMITED.
The foregoing is a correct description,
J. H. Shields SECRETARY

Dates of Survey { During progress of work in shops - - **1929: Nov 26, Dec 5, 10, 17, 20, 24, 30, 1930: Jan 9, 14, 21, 24, 30, Feb 5, 12, 14, 19** Are the approved plans of boiler and superheater forwarded herewith **Yes.**
while building { During erection on board vessel - - - **1930: July 30, Aug 8, 12, 14.** (If not state date of approval.)
Total No. of visits **16 + 4**

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

The materials and workmanship are good.
This boiler has been built under special survey in accordance with the Rules and Approved Plan. It is being shipped to Sweden.

This donkey boiler has been fitted in this vessel under my inspection and to my satisfaction.

Survey Fee ... £ **9-8-0.** When applied for, **Monthly a/c**
Travelling Expenses (if any) £ : : When received, **192**

P. J. Mac *by* **Mac**
Engineer Surveyor to Lloyd's Register of Shipping, Working

Committee's Minute **FRI 29 AUG 1930**
Assigned **See F. E. Rpt.**



© 2021

Lloyd's Register
Foundation