

REPORT ON BOILERS.

No. 12615

Received at London Office

23 OCT 1939

Date of writing Report

When handed in at Local Office

Port of

No. in Survey held at

Date, First Survey

Last Survey

1939

Reg. Book.

Supplement

40954 on the

Single screw M.S. SALAMIS

(Number of Visits 18)

Gross 8286.40

Tons Net 4900.77

Master

Built at

By whom built

Yard No. 535

When built 1939

Engines made at

By whom made

Engine No. 1348

When made 1939

Boilers made at

By whom made

Boilers No. 2070-1

When made 1939

Nominal Horse Power 653

Owners

A.S. Salamis

Port belonging to Oslo

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Colville Ltd.

(Letter for Record 3)

Total Heating Surface of Boilers

2 x 130 m²

Is forced draught fitted

Yes

Coal or Oil fired

oil

No. and Description of Boilers

2 Scotch multitubular

Working Pressure

10.55 kg/cm²
(150 lb./sq. in.)

Tested by hydraulic pressure to

19.4 kg/cm²

Date of test

5-6-39

No. of Certificate

3189319

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

1 double spring loaded

Area of each set of valves per boiler

per Rule

6850 mm²

Pressure to which they are adjusted

150 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

Smallest distance between boilers or uptakes and bunkers

3 ft 6 in to A.P. tank

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

Fitted on flat above thrust

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

3556 mm.

Length

3450 mm.

Shell plates: Material

S.M. Steel

Tensile strength

44/50 kg/mm²

Thickness

20.5 mm.

Are the shell plates welded or flanged

no.

Description of riveting: circ. seams

end

D.R.L.

long. seams

D.B. ships. 4 Rows.

Diameter of rivet holes in

circ. seams

27 mm.

long. seams

27 & 23 mm.

Pitch of rivets

95 mm.

Percentage of strength of circ. end seams

plate

71.5

rivets

48

Percentage of strength of circ. intermediate seam

plate

Yes

rivets

Yes

Percentage of strength of longitudinal joint

plate

90.3

rivets

97.6

combined

91.7

Working pressure of shell by Rules

11 kg/cm²

Thickness of butt straps

outer 20.5 mm.
inner 20.5 mm.

No. and Description of Furnaces in each Boiler

2 marine corrugated

Material

S.M. Steel

Tensile strength

41/47 kg/mm²

Smallest outside diameter

1124 mm.

Length of plain part

top 220 mm.
bottom 220 mm.

Thickness of plates

coron 12 mm.
bottom

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

10.76 kg/cm²

End plates in steam space: Material

S.M. Steel

Tensile strength

41/47 kg/mm²

Thickness

21 mm.

Pitch of stays

405 x 330

How are stays secured

D.N. 9 lone workers outside

Working pressure by Rules

11.95 kg/cm²

Tube plates: Material

front S.M. steel
back

Tensile strength

41/47 kg/mm²

Thickness

21 mm.
18 mm.

Mean pitch of stay tubes in nests

242.5 mm

Pitch across wide water spaces

350 mm.

Working pressure

front 11.4 kg/cm²
back 13.8 kg/cm²

Girders to combustion chamber tops: Material

S.M. Steel

Tensile strength

44/50 kg/mm²

Depth and thickness of girder

at centre

180, 2 x 20.5 mm

Length as per Rule

762 mm.

Distance apart

207 mm.

No. and pitch of stays

in each

2, 210 mm.

Working pressure by Rules

13.5 kg/cm²

Combustion chamber plates: Material

S.M. Steel

Tensile strength

41/47 kg/mm²

Thickness: Sides

18 mm.

Back

18 mm.

Top

18 mm.

Bottom

18 mm.

Pitch of stays to ditto: Sides

210 x 210 mm.

Back

209 x 215 mm.

Top

207 x 210 mm.

Are stays fitted with nuts or riveted over

marginal with nuts.
other riveted.

Working pressure by Rules

11.9 kg/cm²

Front plate at bottom: Material

S.M. Steel

Tensile strength

41/47 kg/mm²

Thickness

21 mm.

Lower back plate: Material

S.M. Steel

Tensile strength

41/47 kg/mm²

Thickness

21 mm.

Pitch of stays at wide water space

320 x 209 mm.

Are stays fitted with nuts or riveted over

nuts

Working Pressure

16.55 kg/cm²

Main stays: Material

S.M. Steel

Tensile strength

44/50 kg/mm²

Diameter

At body of stay,
or
Over threads

63.5 mm.

No. of threads per inch

6

Area supported by each stay

405 x 330 mm.

Working pressure by Rules

15.1 kg/cm²

Screw stays: Material

S.M. Steel

Tensile strength

41/47 kg/mm²

Diameter

At turned off part,
or
Over threads

38 mm.

No. of threads per inch

9

Area supported by each stay

209 x 215 mm.

Working pressure by Rules 12.6 kg/cm^2 Are the stays drilled at the outer ends *no.* Margin stays: Diameter $\begin{cases} \text{At turned off part,} \\ \text{or} \\ \text{Over threads} \end{cases} 28 \text{ mm.}$

No. of threads per inch *9* Area supported by each stay $209 \times 252.5 \text{ mm.}$ Working pressure by Rules 10.7 kg/cm^2

Tubes: Material *S.M. Steel* External diameter $\begin{cases} \text{Plain} & 3'' \\ \text{Stay} & 3'' \end{cases}$ Thickness $\begin{cases} 9.256 \\ 5/16 \end{cases}$ No. of threads per inch *9*

Pitch of tubes $102 \times 106 \text{ mm.}$ Working pressure by Rules 18 kg/cm^2 Manhole compensation: Size of opening in shell plate $400 \times 500 \text{ mm.}$ Section of compensating ring $700 \times 800 \times 20 \text{ mm.}$ No. of rivets and diameter of rivet holes *36. 27 mm*

Outer row rivet pitch at ends 130 mm Depth of flange if manhole flanged *80 mm. in end plate* Steam Dome: Material

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint $\begin{cases} \text{Plate} \\ \text{Rivets} \end{cases}$

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 $\begin{cases} \text{Tubes} \\ \text{Steel forgings} \\ \text{Steel castings} \end{cases}$

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 casing gear Working pressure as per Rules

Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes forgings and 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,
AKTIEBOLAGET GÖTAVERKEN Manufacturer.

Dates of Survey $\begin{cases} \text{During progress of work in shops} & 1939 \text{ April 6, 20, 24, May 2, 4, 10, 11, 16, 24, 25, 31. June 5.} \\ \text{while building} & \text{During erection on board vessel} & \text{July 19, 28. Aug. 16. Sept 25, Oct 3, 6} \end{cases}$ Are the approved plans of boiler and superheater forwarded herewith *25-5-38* (If not state date of approval.)

Total No. of visits *18*

Is this Boiler a duplicate of a previous case *Yes* If so, state Vessel's name and Report No. *M.S. NIKE Got. Yard no. 534*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These dinky boilers have been built under special survey of tested material in accordance with the Rules & approved plans.*

The workmanship is good.

The boilers have been securely fitted in the vessel under my supervision & to my satisfaction, and the safety valves adjusted under steam to 150 lb/in^2

Survey Fee ... *kr. 354.00* : : When applied for, *13/10 1939*
Travelling Expenses (if any) £ : : When received, *24-10/19 39*

L.B. Ligger
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI. 27 OCT 1939

See for. J.E. 12615



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