

# REPORT ON BOILERS.

No. 35331

14 APR 1950

Received at London Office

Date of writing Report

19

When handed in at Local Office

11th April 1950

Port of

Sunderland.

No. in  
Reg. Book.

Sunderland.

Date, First Survey

see Rpt 4

Last Survey

19

(Number of Visits

)

Gross

7363

Tons

Net

3968

on the

"SOYA CHRISTINA"

Built at

Sunderland

By whom built

Short Bros Ld

Yard No.

504.

When built

1950

Engines made at

Sunderland

By whom made

G. Clark (1938) Ld

Engine No.

1463

When made

1950

Boilers made at

Sunderland

By whom made

G. Clark (1938) Ld

Boiler No.

1463

When made

1950

Nominal Horse Power

M.V.

705.

Owners

Rederi AB Soya

Port belonging to

Stockholm.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Colvilles Ld

(Letter for Record

S.

Total Heating Surface of Boilers

9294 sq ft + 1950 sq ft (2 ft)

Is forced draught fitted

Yes.

Coal or Oil fired

oil.

No. and Description of Boilers

Three cylindrical multitubular return tube marine

Working Pressure

220 lb/sq in.

Tested by hydraulic pressure to

380 lb/sq in.

Date of test

23/12/49

No. of Certificate

4746

Can each boiler be worked separately

Yes.

Area of Firegrate in each Boiler

-

No. and Description of safety valves to each boiler

Two improved high lift.

Area of each set of valves per boiler

per Rule

8.244 sq in.

Pressure to which they are adjusted

220 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

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-3"

Is oil fuel carried in the double bottom under boilers

Yes.

Smallest distance between shell of boiler and tank top plating

1'-11 1/2"

Is the bottom of the boiler insulated

Yes.

Largest internal dia. of boilers

16'-2 7/8"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29/33

Thickness

19/16"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end

DR. lap

long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

F. 19/16"

S. 19/16"

Pitch of rivets

4 1/8"

Percentage of strength of circ. end seams

plate

62.2

rivets

48.1

Percentage of strength of circ. intermediate seam

plate

84.94

Percentage of strength of longitudinal joint

plate

88.2

combined

84.6.

Thickness of butt straps

outer 13/16"

inner 15/16"

No. and Description of Furnaces in each Boiler

Three Corrugated (Brighton)

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3'-11 1/16"

Length of plain part

top

bottom

Thickness of plates

crown

28/32"

Description of longitudinal joint

Welded.

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

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

1 1/2"

Pitch of stays

22'-2 7/8"

How are stays secured

Washers nuts.

Tube plates: Material

front

back

Steel

Tensile strength

26/30

Thickness

15/16"

4/8"

Mean pitch of stay tubes in nests

6 7/8" x 8 3/4"

Pitch across wide water spaces

14 1/4"

Girders to combustion chamber tops: Material

Steel

Tensile strength

29/33

Depth and thickness of girder

at centre

12 5/8" x 15/16" (2)

Length as per Rule

4'-0 1/2"

Distance apart

9 1/4"

No. and pitch of stays

in each

3 @ 12 1/6"

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

27/32"

Back

49/64"

Top

27/32"

Pitch of stays to ditto: Sides

12 1/6" x 8 7/8"

Back

10 1/2" x 8 3/4"

Top

12 1/6" x 9 1/4"

Are stays fitted with nuts or riveted over

both ends.

being stays - nuts inside

& caulked at

Shell.

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

3/32"

Pitch of stays at wide water space

14 1/4"

Are stays fitted with nuts or riveted over

Welded both ends.

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay,

3 1/4"

3 1/2"

No. of threads per inch

6.

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

At turned off part,

1 5/8"

3/4"

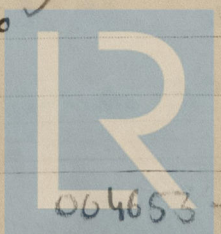
(welded)

No. of threads per inch

9.

Over threads

2" O.C. Sides & Girders



© 2020

Lloyd's Register

004653-004661-0122



Are the stays drilled at the outer ends *no.* ✓ Margin stays: Diameter { At turned off part, *(Plain last)* 1 7/8" 2 1/4" or Over threads }  
No. of threads per inch *Partition stays 9. Remainder are plain last.*  
Tubes: Material *S. D. Steel* External diameter { Plain 2 1/4" ✓ Stay 2 1/4" } Thickness { 8 WG. ✓ 5/16" 13/32" } No. of threads per inch *9.* ✓  
Pitch of tubes *3 1/2", 3 1/6"* ✓ Manhole compensation: Size of opening in shell plate *(In end plate)* Section of compensating ring — No. of rivets and diameter of rivet holes —  
Outer row rivet pitch at ends — Depth of flange if manhole flanged *4 5/16"* ✓ 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 — Thickness of crown — No. and diameter of stays — Inner radius of crown —  
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 *N.E.M. Combustion Chamber* Manufacturers of { Tubes *headers. Chesterfield Tube Co Ld.* ✓ Steel forgings — Steel castings — }  
Number of elements *36.* Material of tubes *S. D. Steel* Internal diameter and thickness of tubes *1 2/3" x 4 WG.*  
Material of headers *S. D. Steel* Tensile strength *26/28.* ✓ Thickness *1"* ✓ Can the superheater be shut off and the boiler be worked separately *Yes.* Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *Yes.*  
Area of each safety valve *3.14 sq. ft.* ✓ Are the safety valves fitted with easing gear *Yes.* ✓  
Pressure to which the safety valves are adjusted *220 lbs/so.* ✓ Hydraulic test pressure: tubes *150 lbs/so.* ✓ forgings and castings *660 lbs/so.* ✓ and after assembly in place *440 lbs/so.* ✓ Are drain cocks or valves fitted to free the superheater from water where necessary *Yes.* ✓  
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes.* ✓

The foregoing is a correct description,  
*Refuses*  
Manufacturer.

Dates of Survey { During progress of work in shops — — } *see Rpt 4* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) *Yes.*  
while building { During erection on board vessel — — } Total No. of visits

Is this Boiler a duplicate of a previous case — If so, state Vessel's name and Report No. —

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been constructed under Special Survey in accordance with the approved Plan & the rules of the Society. The materials & workmanship are first class. On completion they have been tested by hydraulic pressure of 380 lbs/so. & found tight & sound at that pressure. The boilers have been securely fitted on board the vessel, fitted to burn oil fuel (F.P. above 150° F.), Safety valves of boiler & Superheater adjusted under steam to working pressure.*

*In recommendation please see Machinery Rpt.*

Survey Fee ... £ *see Machinery Rpt.* When applied for, 19  
Travelling Expenses (if any) £ *see Machinery Rpt.* When received, 19

*J. P. Brown*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 5 MAY 1950

Assigned

*See F.E. Machinery Rpt.*



© 2020

Lloyd's Register Foundation