

REPORT ON BOILERS.

No. 8158

10 MAY 1945

Received at London Office

Date of writing Report 13th Apr. 1945 when handed in at Local Office 13th Apr. 1945 Port of Baltimore, Maryland

No. in Reg. Book. 79299 Survey held at Baltimore, Maryland

Date, First Survey September 8th, 1944 Last Survey January 17th, 1945

(Number of Visits 8) Tons { Gross 7886 Net 4453

on the M. V. "LAVORO"

Master Built at Trieste By whom built Cantieri Riuniti Dell' Adriatico Yard No. 1212 When built 1938

Engines made at Turin By whom made Soc. An. "FIAT" S.G.M. Engine No. When made 1938

Boilers made at Trieste By whom made Cantieri Riuniti Dell' Adriatico Boiler No. 1212 When made 1938

Nominal Horse Power 9296 Owners A. Lauro Port belonging to Naples

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY, OR~~ DONKEY.

(Letter for Record)

Manufacturers of Steel Is forced draught fitted Yes Coal or Oil fired Oil

Total Heating Surface of Boilers 2060 sq. ft. Working Pressure 180 lbs.

No. and Description of Boilers Two single end Scotch Type

Tested by hydraulic pressure to 325 lbs. Date of test 22/12/44 No. of Certificate Can each boiler be worked separately Yes

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Two

Area of each set of valves per boiler { per Rule 13.2 sq. ins. Pressure to which they are adjusted 180 lbs. Are they fitted with easing gear Yes
as fitted 15.33 sq. ins.

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 not close 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 12.72' Length 11.5' Shell plates: Material Tensile strength 26 tons

Thickness 1.18" Are the shell plates welded or flanged flanged Description of riveting: circ. seams { end single rivetted lap
inter.

long. seams double riveted butt Diameter of rivet holes in { circ. seams 1.25" Pitch of rivets { 4.72"
long. seams 1.14" { 7.79"

Percentage of strength of circ. end seams { plate 74% rivets 73.5% Percentage of strength of circ. intermediate seam { plate rivets

Percentage of strength of longitudinal joint { plate 77.5% rivets 85.3% combined 87.2% Working pressure of shell by Rules 173 lbs.

Thickness of butt straps { outer .826 inner .944 No. and Description of Furnaces in each Boiler Two corrugated

Material Tensile strength 26 tons Smallest outside diameter 40.47

Length of plain part { top 10.63 bottom 10.63 Thickness of plates { crown .55 bottom .55 Description of longitudinal joint None

Dimensions of stiffening rings on furnace or c.c. bottom None Working pressure of furnace by Rules 195.6 lbs.

End plates in steam space: Material Tensile strength 26 tons Thickness 1.18 Pitch of stays 17.99

How are stays secured Screwed, nuts each side Working pressure by Rules 290 lbs.

Tube plates: Material { front back Tensile strength { 26 tons Thickness { 1.125 .75

Mean pitch of stay tubes in nests 7.5" Pitch across wide water spaces 13.375" Working pressure { front 162 lbs. back 162 lbs.

Girders to combustion chamber tops: Material Tensile strength 26 tons Depth and thickness of girder

at centre 9.84" x .629" Length as per Rule Distance apart 7.99" No. and pitch of stays

in each 3 - 7.08" Working pressure by Rules 231 Combustion chamber plates: Material

Tensile strength 26 tons Thickness: Sides .66 Back .7 Top .66 Bottom .78

Pitch of stays to ditto: Sides 7.08 Back 8.2 Top 7.99 Are stays fitted with nuts or riveted over riveted

Working pressure by Rules 193 lbs. Front plate at bottom: Material Tensile strength 26 tons

Thickness 1.02 Lower back plate: Material Tensile strength 26 tons Thickness .90

Pitch of stays at wide water space 11.8" Are stays fitted with nuts or riveted over nuts

Working Pressure 329 Main stays: Material Tensile strength 26 tons

Diameter { At body of stay, 2.99 No. of threads per inch 6 Area supported by each stay 150 sq. in.
Over threads

Working pressure by Rules 195 Screw stays: Material Tensile strength 26 tons

Diameter { At turned off part, 1.5" No. of threads per inch 9 Area supported by each stay 85 sq. ins.
Over threads



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Working pressure by Rules **343 lbs.** Are the stays drilled at the outer ends **No** Margin stays: Diameter { At turned off part, or Over threads } **1.75"**

No. of threads per inch **9** Area supported by each stay **46 sq. ins.** Working pressure by Rules **378 lbs.**

Tubes: Material External diameter { Plain **2.5"** Stay **2.5"** } Thickness { **.143"** **.27** **.196"** } No. of threads per inch **9**

Pitch of tubes **7.48** Working pressure by Rules **235 lbs.** Manhole compensation: Size of opening in shell plate **15.74" x 11.8"** Section of compensating ring **11.8"** No. of rivets and diameter of rivet holes **2 rows 1.14"**

Outer row rivet pitch at ends **8.66** Depth of flange if manhole flanged **3.74"** 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 forgings **-** 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 **-**

Area of each safety valve **-** Is a safety valve fitted to every part of the superheater which can be shut off from the boiler **-**

Rules **-** Pressure to which the safety valves are adjusted **-** Working pressure as per tubes **-** forgings and castings **-** and after assembly in place **-** Are drain cocks or valves fitted to free the superheater from water where necessary **-** Hydraulic test pressure: **-**

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with **-**

The foregoing is a correct description,
Manufacturer.

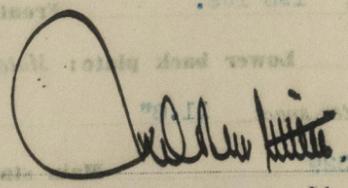
Dates of Survey { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith **Yes**
(If not state date of approval.)
{ During erection on board vessel - - - } Total No. of visits **1**

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.)

Both boilers have been examined throughout at this time and the workmanship and quality of material appears to be of a standard satisfactory for Classification with this Society.

Survey Fee £ **\$90.00:** } When applied for, **Apr. 13, 19 45**
Travelling Expenses (if any) £ : - : } When received, **19**


Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **NEW YORK APR 18 1945** *J. L. B.*

Assigned **2 S.B. - 180 lbs □**

