

REPORT ON BOILERS.

Received at London Office

Date of writing Report 18th Aug 1947. When handed in at Local Office 18th Aug. 1947. Port of PHILADELPHIA, PA.

No. in Reg. Book. Survey held at Chester, Pa. Date, First Survey 24th February, Last Survey 10th June, 1947.

69099 on the Steel Twin Screw Steamer, "ESSO EL SALVADOR", Ex. "Avila" (Number of Visits 28) Gross 1691 Tons Net 948

Master - Built at Middlesborough By whom built Smith's Dock Co. Ltd. Yard No. - When built 1938 - 8
Engines made at Middlesborough By whom made Smith's Dock Co. Ltd. Engine No. - When made 1938 - 8
Boilers made at Middlesborough By whom made Smith's Dock Co. Ltd. Boiler No. - When made 1938 - 8
Nominal Horse Power 231 Owners Panama Transport Co. Port belonging to Panama

PROPANE TANK - NO. 5 -

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Shell Plates - Carnegie Illinois Steel Corp.

Dished ends - Lukens Steel Co.

Manufacturers of Steel Welded Dome Conn. - Lenape Hydraulic Pressing & Forging Co. (Letter for Record)

Total Heating Surface of Boilers - Is forced draught fitted - Coal or Oil fired -

No. and Description of Tank 27'2-3/8" long X 11'-10" ins. diam. Working Pressure 250#/sq"

Tested by hydraulic pressure to 425 lbs Date of test 3 Apr. '47 No. of Certificate 796 Can each boiler be worked separately -

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler 2 valves resilient gasketed type

Area of each set of valves per boiler {per Rule - as fitted 6.88 sq.in. Pressure to which they are adjusted 250 lbs. Are they fitted with easing gear No

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 - Is oil fuel carried in the double bottom under boilers -

Smallest distance between shell of boiler and tank top plating - Is the bottom of the boiler insulated -

Largest internal dia. of boilers 11'10" Length 27'2-3/8" Shell plates: Material O.H. Firebox Tensile strength 70,000 lbs.

Thickness 1-5/16" Are the shell plates welded or flanged welded Description of riveting: circ. seams {end - inter. -

long. seams welded Diameter of rivet holes in {circ. seams - long. seams - Pitch of rivets {

Percentage of strength of circ. end seams {plate - rivets - Percentage of strength of circ. intermediate seam {plate - rivets -

Percentage of strength of longitudinal joint {plate - rivets - Working pressure of shell by Rules

Thickness of butt straps {outer - inner - No. and Description of Furnaces in each Boiler -

Material - Tensile strength - Smallest outside diameter -

Length of plain part {top - bottom - Thickness of plates {crown - bottom - Description of longitudinal joint -

Dimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules -

End plates in steam space: Material Sil.H.T.Fire-box Steel Tensile strength 70,000 Thickness 1-5/16" Pitch of stays -

How are stays secured - Working pressure by Rules -

Tube plates: Material {front - back - Tensile strength { Thickness {

Mean pitch of stay tubes in nests - Pitch across wide water spaces - Working pressure {front - back -

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

at centre - Length as per Rule - Distance apart - No. and pitch of stays

in each - Working pressure by Rules - Combustion chamber plates: Material -

Tensile strength - Thickness: Sides - Back - Top - Bottom -

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

Working pressure by Rules - Front plate at bottom: Material - Tensile strength -

Thickness - Lower back plate: Material - Tensile strength - Thickness -

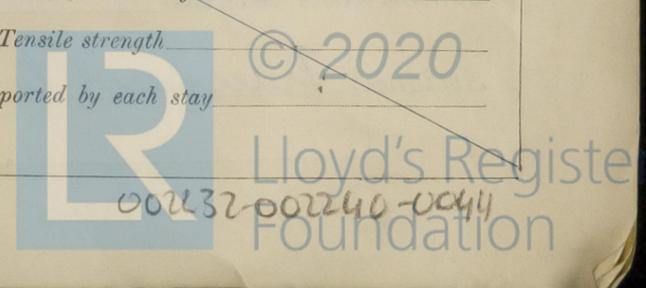
Pitch of stays at wide water space - Are stays fitted with nuts or riveted over -

Working Pressure - Main stays: Material - Tensile strength -

Diameter {At body of stay, - or - Over threads - No. of threads per inch - Area supported by each stay -

Working pressure by Rules - Screw stays: Material - Tensile strength -

Diameter {At turned off part, - or - Over threads - No. of threads per inch - Area supported by each stay -



Working pressure by Rules _____ Are the stays drilled at the outer ends _____ Margin stays: Diameter { At turn'd off part, _____
or _____
Over threads _____

No. of threads per inch _____ Area supported by each stay _____ Working pressure by Rules _____

Tubes: Material _____ External diameter { Plain _____ Thickness { _____ No. of threads per inch _____
Stay _____

Pitch of tubes _____ Working pressure by Rules _____ Manhole compensation: Size of opening in
shell 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 _____ 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 _____

The foregoing is a correct description,
SUN SHIPBUILDING & DRY DOCK CO.
W.M. Connelly Manufacturer

Dates { During progress of }
of Survey { work in shops - - }
while { During erection on }
building { board vessel - - - }

Are the approved plans of boiler and superheater forwarded herewith **yes**
(If not state date of approval.)

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.) **This tank is of all welded construction all welds being carried out by the "Unionmelt" process using UX-40 Rd. All seams being afterwards radiographed. Tank was stress relieved at 1200° F and held at that temperature for six hours. The specified physical tests for welding were carried out as per Rule, and found to comply with the Society's requirements, for Class A pressure vessels. Tank was tested by hydraulic pressure to 425 lbs. per sq. inch. All seams were hammer tested at 375 lbs. per sq. in., same being found sound and tight under these conditions. The workmanship is good throughout.**

Survey Fee \$ 50 - : | When applied for, 25/8/1947
Travelling Expenses (if any) \$ 3.50 : | When received, _____ 19 _____

James
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____ **NEW YORK SEP 17 1947**
Assigned Transmit to London