

REPORT ON BOILERS.

Received at London Office 25 OCT 1947

Date of writing Report 2nd Sept. 1947. When handed in at Local Office 2nd Sept. 1947. Port of PHILADELPHIA, PA.

No. in Reg. Book. Survey held at Chester, Pa. Date, First Surcey 24th February, Last Surcey 10th June, 19 47.

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

Master D. G. 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

WATER SEPARATOR TANK

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Shell plates and ends - Bethlehem Steel Co.

Manufacturers of Steel Welded connections - 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 6'0" Long X 3'0" diam. Working Pressure 250#/sq"

Tested by hydraulic pressure to 425 lbs. Date of test 16/7/47 No. of Certificate 800 Can each boiler be worked separately -

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

Area of each set of valves per boiler { per Rule - as fitted - Pressure to which they are adjusted - Are they fitted with easing gear -

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 outside dia. of boilers 3'0" Length 6'0" Shell plates: Material Grade B fire box Tensile strength 70,000 lbs.

Thickness 1/2" Are the shell plates welded or flanged welded Description of riveting: circ. seams { end - inter. -

long. seams - 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 - combined - 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 Grade B fire box Tensile strength 70,000 Thickness 3/4" 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 -

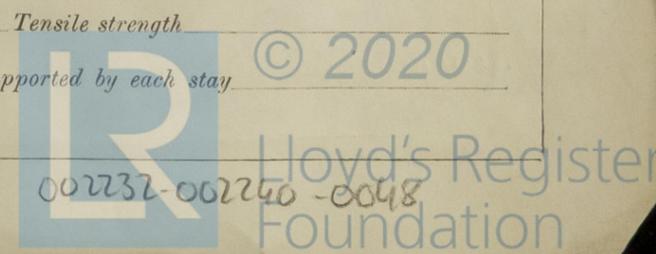
Working Pressure - Main stays: Material - Tensile strength -

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 -

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship? [2m.12.28. - Copyright Ink.]



Working pressure by Rules _____ Are the stays drilled at the outer ends _____ Margin stays: Diameter { ^{At turned off part,} _{or} ^{Over threads} _____
 No. of threads per inch _____ Area supported by each stay _____ Working pressure by Rules _____
Tubes: Material _____ External diameter { ^{Plain} _{Stay} _____ Thickness { _____ No. of threads per inch _____
 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. Conroy Manufacturer.

Dates of Survey { ^{During progress of} _{work in shops - -} _____ Are the approved plans of boiler and superheater forwarded herewith
 while building { ^{During erection on} _{board vessel - - -} _____ (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 water separator tank is of all welded construction, by manual process using carbon moly. No.50 rod, tank was stress relieved at 1140 F and held at that temperature for two 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. in.; all seams were hammer tested at 375 lbs. same being found sound and tight under these conditions. All steel piping for filling, cross connecting and pumping out tanks was tested by hydraulic pressure to 750 lbs. per sq. in. and found sound and tight at that pressure. Safety valves set tested under hydraulic pressure and found to blow off at 250 lbs. per sq. in. The workmanship is good throughout.

Survey Fee \$30 - : When applied for, 25th Aug 47.
 Travelling Expenses (if any) £ ✓ : per F.A.G.
 When received, 19 _____

W. M. Conroy
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____ NEW YORK SEP 17 1947

Assigned Transmit to London _____