

REPORT ON BOILERS.

No. 125849

27 AUG 1921

Received at London Office

Date of writing Report 19 20 When handed in at Local Office 19 20 Port of Liverpool

No. in Reg. Book. 90330 Survey held at Liverpool Date, First Survey S. S. PAN Last Survey 19 20

(Number of Visits) Gross Tons }
Net Tons }

Master ✓ Built at San Pedro Cal. By whom built S. Western S. B. Co. Yard No. ✓ When built 19 20

Engines made at Los Angeles Cal. By whom made Jewell's Iron Works Engine No. ✓ When made 19 20

Boilers made at San Francisco By whom made Moore S B Co Boiler No. ✓ When made 19 20

Nominal Horse Power Owners Amargos S. S. Co Ltd. Port belonging to Panama

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Lukens Steel Co of Coatesville P.A. (60,000 T8) (Letter for Record)

Total Heating Surface of Boilers 8112 ✓ Is forced draught fitted Yes ✓ Coal or Oil fired oil fired ✓

No. and Description of Boilers 3 ✓ scotch angle ended Working Pressure 210 ✓

Tested by hydraulic pressure to ✓ Date of test ✓ No. of Certificate ✓ Can each boiler be worked separately Yes ✓

Area of Firegrate in each Boiler 0 F. No. and Description of safety valves to each boiler 2 spring loaded.

Area of each set of valves per boiler per Rule as fitted 9.620 ✓ Pressure to which they are adjusted 210 lb 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 24" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 21" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 14' - 9" ✓ Length 11' - 0" ✓ Shell plates: Material Steel Tensile strength

Thickness 1 9/16" ✓ Are the shell plates welded or flanged Description of riveting: circ. seams Double ✓

long. seams Double D.B.S. ✓ Diameter of rivet holes in Pitch of rivets 10" ✓

Percentage of strength of circ. end seams Percentage of strength of circ. intermediate seam

Percentage of strength of longitudinal joint Working pressure of shell by Rules 240

Thickness of butt straps No. and Description of Furnaces in each Boiler 3 ✓ masonry

Material Steel Tensile strength Smallest outside diameter 45 1/16" ✓

Length of plain part Thickness of plates Description of longitudinal joint Welded ✓

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 235

End plates in steam space: Material Steel Tensile strength Thickness 1 1/4" ✓ Pitch of stays 16 3/8 x 17 1/2" ✓

How are stays secured Double nuts ✓ Working pressure by Rules 245

Tube plates: Material Steel Tensile strength Thickness

Mean pitch of stay tubes in nests 12 3/8 x 8" ✓ Pitch across wide water spaces 13" ✓ Working pressure 230

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

at centre 11" x 1 1/2" ✓ Length as per Rule 2' x 10" ✓ Distance apart 8 3/16" ✓ No. and pitch of stays

in each 4 2 1" ✓ Working pressure by Rules 285 Combustion chamber plates: Material Steel

Tensile strength Thickness: Sides 1/16" ✓ Back 1/16" ✓ Top 1/16" ✓ Bottom 15/16" ✓

Pitch of stays to ditto: Sides 7" x 8" ✓ Back 7 1/4" x 7 3/4" ✓ Top 7" x 8 3/16" ✓ Are stays fitted with nuts or riveted over Riveted over ✓

Working pressure by Rules 215 Front plate at bottom: Material Steel Tensile strength

Thickness 13/16" ✓ Lower back plate: Material Steel Tensile strength Thickness 13/16" + 1/16" Double ✓

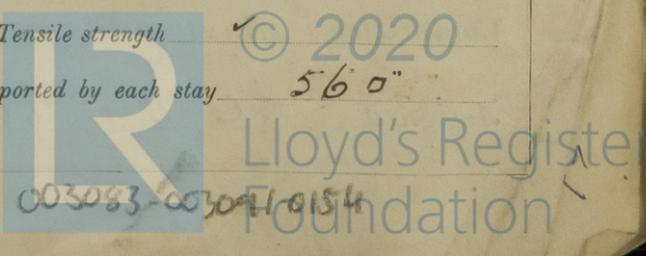
Pitch of stays at wide water space 13" x 7" ✓ Are stays fitted with nuts or riveted over Double nuts & washers ✓

Working Pressure 310 Main stays: Material Steel Tensile strength

Diameter No. of threads per inch Area supported by each stay 287 0" ✓

Working pressure by Rules 300 Screw stays: Material Steel Tensile strength

Diameter No. of threads per inch Area supported by each stay 56 0" ✓



Working pressure by Rules 245 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 Steel External diameter { Plain 3 Thickness { 1/4 No. of threads per inch 148

Pitch of tubes 4 1/8" x 4" Working pressure by Rules Manhole compensation: Size of opening in shell plate 16 x 12 Section of compensating ring none No. of rivets and diameter of rivet holes ✓

Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 3 3/4" ✓ Steam Dome: Material Steel

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

How connected to shell Inner radius of crown Working pressure by Rules

of rivets in outer row in dome connection 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

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

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 (If not state date of approval.)

while building { During erection on board vessel - - -) Total No. of visits

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Atlantic "EX WEST CONSTANCE" New York Report No 23340.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have not been built under Survey, but have now been examined with a view to classification.

The material & workmanship appear good. The scantlings checked as far as possible with the plan.

The boilers have been satisfactorily examined under steam, an accumulation test carried out, & their safety valves adjusted under steam to 210 lb/sq in.

Fitted for oil fuel 1920 F.P. above 150°F.

3 SB. 210 lb/sq in 8112 sq ft H.S.

Survey Fee £ : : } When applied for, 10

Travelling Expenses (if any) £ : : } When received, 10

W. H. Duggold
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **LIVERPOOL 26 AUG 1946**

Assigned *See Minute on Div. Machinery Report.*

