

SEP 14 1927

Received at London Office

Date of writing Report 21st Aug 1934 When handed in at Local Office 21st Aug 1934 Port of GALVESTON
In Chap. Downingtown, Pa. - April 2nd April 8th 34
 No. in Survey held at Erection on Beaumont, Local Date, First Survey June 9th Last Survey June 25th 1934
Reg. Book Suppl. Board.
9158 on the "M/V. MERCURY" (Number of Visits 5) Tons { Gross 1518.04
 Net 1182.00
 Master ✓ Built at BEAUMONT TEXAS By whom built Pennsylvania Shipyard Inc. Yard No. 116 When built 1934-6
 Engines made at Cleveland, Ohio By whom made Livingston Engine Corp Engine No. 5314 When made 1934
5315
 Boilers made at Downingtown, Pa. By whom made Downingtown Iron Works Boiler No. ✓ When made 1934
 Nominal Horse Power 230 Owners Cleveland Tankers Inc. Port belonging to Livingington, Del.

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

Manufacturers of Steel Lukens Steel Co, Coatsville (Letter for Record Exhaust Gas)

Total Heating Surface of Boilers 3275 Is forced draught fitted no Coal or Oil fired Exhaust Gas

No. and Description of Boilers 1 vertical, tubular Working Pressure 125 lbs

Tested by hydraulic pressure to 238 lbs Date of test 8 Apr 34 No. of Certificate 699 Can each boiler be worked separately yes

Area of Firegrate in each Boiler — No. and Description of safety valves to each boiler two loaded safety valves

Area of each set of valves per boiler per Rule Pressure to which they are adjusted 125 lbs Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork no woodwork Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating open floor Is the bottom of the boiler insulated no

Largest internal dia. of boilers 92" Length 4' 8 1/4" Shell plates: Material Steel Tensile strength 60 to 70,000 lbs

Thickness 1/2" Are the shell plates welded or flanged no Description of riveting: circ. seams single riveting

long. seams double butt straps Diameter of rivet holes in 1" Pitch of rivets 2.676"

Percentage of strength of circ. end seams 62.6 Percentage of strength of circ. intermediate seam 58.0

Percentage of strength of longitudinal joint 86.0 Working pressure of shell by Rules 128.0 lbs

Thickness of butt straps 13/32" No. and Description of Furnaces in each Boiler —

Material — Tensile strength — Smallest outside diameter —

Length of plain part — Thickness of plates — 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 — Tensile strength — Thickness — Pitch of stays —

How are stays secured — Working pressure by Rules —

Tube plates: Material Steel Tensile strength 60 to 70,000 lbs Thickness TOP 1 1/16"

Mean pitch of stay tubes in nests — Pitch across wide water spaces — Working pressure —

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 — No. of threads per inch — Area supported by each stay —

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

Diameter — 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 turned off part, ☒ Over threads ☒

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

Tubes: Material Steel External diameter ☒ Plain 1 1/4" ☒ Thickness ☒ 13 B.W.G. ☒ No. of threads per inch ☒

Pitch of tubes 1 5/16" Working pressure by Rules ☒ 5 B.W.G. ☒ HAND HOLES. Manhole compensation: Size of opening in shell plate 6" x 4" 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 None 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,
Signed Howington Iron Works Manufacturer.

Dates of Survey ☒ During progress of work in shops ☒ April 2nd & 8th 1934 ☒ Are the approved plans of boiler and superheater forwarded herewith ☒ (If not state date of approval.)

while building ☒ During erection on board vessel ☒ June 9th & 23rd & 25th 34 ☒ Total No. of visits 5

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 boiler has been built under Special Survey, and in accordance with the approved plans. The workmanship and materials are good. Hydraulic tests satisfactory. W.H.R.

See Philadelphia Rpt No 7273, also approved plans. (3) forwarded herewith.

The boiler has been efficiently installed and securely fitted in the vessel, examined under steam. Submitted to a satisfactory accumulation test (rise of pressure within 7% of and its safety valves adjusted to W.P. of 125 lbs.

In my opinion the vessel is eligible to have record of D.B. 125 lbs. "Exhaust Gas Fired."

W.R.

With fee shown on Survey Fee W.H.R. Rpt 4 b. ☒ When applied for, 19

Travelling Expenses (if any) £ ☒ When received, 19

Wm. Rennie & Co. W.A. Rindam
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK SEP 1 - 1937

Assigned 1 D.B. (Exhaust Gas Fired) - 125 lbs