

REPORT ON WATER TUBE BOILERS.

No. 7314

SEP 7 1937 (See New York Report No. 37661)

Received at London Office

Date of writing Report Aug 12 1937 When handed in at Local Office Aug 12 1937 Port of Philadelphia

No. in Survey held at New York & Chester Pa. Date, First Survey 2nd April Last Survey 30th July 1937

Reg. Bk. on the U.S. M.V. LOUISIANA Hull 163 (Number of Visits 23) Gross not Tons Net available

Master Chester Pa. Built at Chester Pa. By whom built Sam FB & DD Co When built 1937

Engines made at Chester Pa. By whom made Sam FB & DD Co When made "

Boilers made at Chester Pa. By whom made Porter Wheel & Construction (Bloss-9) When made "

Registered Horse Power 1197 Owners The Texas Co Port belonging to Wilmington Del

WATER TUBE BOILERS ~~MAIN, AUXILIARY, OR DONKEY~~ — Manufacturers of Steel Lukens Steel Co

(Letter for Record S) Date of Approval of plan 7 May 1937 Number and Description of Type 2 Watertube (A type)

of Boilers 2 Watertube (A type) Working Pressure 227 lbs Tested by Hydraulic Pressure to 341 lbs Date of Test 6 July 1937

No. of Certificate 706-707 Can each boiler be worked separately Yes Total Heating Surface of Boilers 6000 sq ft

Is forced draught fitted Yes Area of fire grate (coal) in each Boiler Oil fired Total grate area of boilers in vessel including Main and Auxiliary 30 sq ft

No. and type of burners (oil) in each boiler 2 Spring loaded No. and description of safety valves on each boiler 2 Spring loaded Area of each valve 7.07 sq in Pressure to which they are adjusted 227 lbs

Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 46" Height of Boiler 17' 5 1/2" Width and Length 6' 3/4" x 9' 9 3/8"

Steam Drums:—Number in each boiler 1 Inside diameter 46" Material of plates Steel Thickness 3 7/8"

Range of Tensile Strength 65-75000 lbs Are drum shell plates welded or flanged Fusion Welded Description of riveting:—

Cir. seams Fusion Welded long. seams Fusion Welded Diameter of rivet holes in long. seams " Pitch of Rivets "

Lap of plate or width of butt straps Butt joint Thickness of straps " Percentage strength of long. joint:—Plate 90% allowed Rivet "

Diameter of tube holes in drum 2 1/2" x 1 1/2" Pitch of tube holes 3 7/8" x 2 3/8" Percentage strength of shell in way of tubes 43.47

If Drum has a flat side state method of staying No flat side Depth and thickness of girders at centre (if fitted) "

Distance apart " Number and pitch of stays in each " Working pressure by rules "

Steam Drum Heads or Ends:—Material Steel Thickness 13/16" x 3/4" Radius or how stayed 42" R

Size of Manhole or Handhole 12" x 16" Water Drums:—Number in each boiler 2 Inside Diameter 30"

Material of plates Steel Thickness 9/16" Range of tensile strength 65-75000 Are drum shell plates welded or flanged Fusion Welded

Description of riveting:—Cir. seams Fusion Welded long. seams Fusion Welded Diameter of Rivet Holes in long. seams "

Pitch of rivets " Lap of plates or width of butt straps " Thickness of straps "

Percentage strength of long. joint:—Plate 90% allowed Rivet " Diameter of tube holes in drum 2 1/2" x 1 1/2" Pitch of tube holes 3 7/8" x 2 3/8"

Percentage strength of drum shell in way of tubes 43.47 Water Drum Heads or Ends:—Material Steel Thickness 9/32" x 15/32"

Radius or how stayed 30" R Size of manhole or handhole 12" x 16" Headers or Sections:—Number None

Material " Thickness " Tested by Hydraulic Pressure to " Material of Stays "

Area at smallest part " Area supported by each stay " Working Pressure by Rules " Tubes:—Diameter 2" x 1 1/2"

Thickness 1 3/4" x 1.09" Number 66-2 x 910-1 1/2" Steam Dome or Collector:—Description of Joint to Shell None

Percentage strength of Joint " Diameter " Thickness of shell plates " Material "

Description of longitudinal joint " Diameter of Rivet Holes " Pitch of Rivets " Working Pressure of shell by Rules "

Crown or End Plates:—Material " Thickness " How stayed "

SUPERHEATER. Type " Date of Approval of Plan " Tested by Hydraulic Pressure to "

Date of Test " Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler "

Diameter of Safety Valve " Pressure to which each is adjusted " Is easing gear fitted "

Is a drain cock or valve fitted at lowest point of superheater " Number, diameter, and thickness of tubes "

Spare Gear. Tubes 40 Gaskets or joints:—Manhole 10 Handhole 400 Handhole plates 20

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building 1937 During progress of work in shops Apr 5-8-12-16-19-22-26-29 May 3-6-10-14-18-20 Is the approved plan of boiler forwarded herewith Yes

During erection on board vessel May 10-17-20 June 8-23 July 2-6-20 1937 Total No. of visits 23

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

The above donkey boilers have been constructed under special survey and in accordance with the approved plans, the workmanship & materials are good. The boilers have been satisfactorily installed on board the vessel and tested by hydraulic pressure to 341 lbs, the safety valves have been adjusted under steam to 227 lbs. In my opinion the boilers are eligible to receive the record of 2 WTDB 227 lbs.

Survey Fee \$300.00 When applied for 12 August 1937

Expenses (if any) \$4.15 When received Dec 6 1937

50% New York Philad 00

50% Philadelphia

W.D. Runham

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned 2 WTDB 227 lbs

NEW YORK AUG 25 1937

W1147-0027

Lloyd's Register Foundation