

REPORT ON WATER TUBE BOILERS.

No. 7418

Received at London Office

FEB - 3 - 1938

Date of writing Report 4th Jan 1938 When handed in at Local Office 6th Jan 1938 Port of Philadelphia

No. in Survey held at Chester Pa & Cartaret NJ Date, First Survey 2nd April Last Survey 21 Dec 1937

Reg. Bk. on the SS M.V. RHODE ISLAND (Number of Visits 22) Tons { Gross 8162 Net 8070

Master J.M. Built at Chester Pa By whom built Sum SB & DD Co When built 1937

Engines made at Chester Pa By whom made Sum SB & DD Co When made "

Boilers made at Cartaret NJ By whom made Foster Wheeler Corp When made "

Registered Horse Power 4800 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 or Type of Boilers 2 Watertube A(type) Working Pressure 224 lbs Tested by Hydraulic Pressure to 341 lbs Date of Test 20 Sept

No. of Certificate 715 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 3 Total Total grate area of boilers in vessel including Main and Auxiliary 3 Total No. and type of burners (oil) in each boiler 2 Spring loaded No. and description of safety valves on each boiler 7.07" 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 17'-5 3/32" Height of Boiler 16-3 3/8" Width and Length 9'-9 3/8"

Steam Drums: - Number in each boiler 1 Inside diameter 46" Material of plates Steel Thickness 27/32" Description of riveting: - Range of Tensile Strength 65-75000 lbs Are drum shell plates welded or flanged Fusion Welded

Cir. seams Fusion Welded long. seams Fusion Welded Diameter of rivet holes in long. seams 90% allowed Pitch of Rivets Rivet

Lap of plate or width of butt straps Butt joint Thickness of straps 3 1/32" Percentage strength of long. joint: - Plate 90% allowed Rivet 43.47%

Diameter of tube holes in drum 2 1/32" Pitch of tube holes 1 7/32" 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 230 lbs Steam Drum Heads or Ends: - Material Steel Thickness 13/16" Radius or how stayed 42" Rad

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 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 plates or width of butt straps Thickness of straps

Percentage strength of long. joint: - Plate 90% allowed Rivet 43.47% Diameter of tube holes in drum 2 1/32" Pitch of tube holes 1 7/32"

Percentage strength of drum shell in way of tubes 43.47% Water Drum Heads or Ends: - Material Steel Thickness 19/32"

Radius or how stayed 30" Rad 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" + 1/2"

Thickness 1 3/4" + 1 0/9" Number 6-2" + 910-1/2" 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

UPERHEATER. Type None 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

These drums are designated Steam drums 612-3 - 613-3 Water " 612-1 613-1 612-2 613-2

The foregoing is a correct description, Manufacturer.

Dates of Survey while building { During progress of work in shops - - } April 25-8-12-16-19-22-26-29. May 3-6-10-14-18-20-21. Is the approved plan of boiler forwarded herewith Yes

{ During erection on board vessel - - - } June 10-24 Aug 2-10-16. Sept 16-20. Oct 18. Dec 21 Total No. of visits 25

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The above boilers have been satisfactorily installed on board the vessel, tested by hydraulic pressure to 341 lbs with satisfactory results, the 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, 7th Jan. 1938

Travelling Expenses (if any) \$ 10.00 : When received, 19.5 1938

50% to NY 50% to Phila. \$ 6.00

Committee's Minute NEW YORK JAN 26 1938

Assigned 2 WTDB-227 lbs

Engineer Surveyor to Lloyd's Register of Shipping. W.A. Punham

