Rpt. 5c.

REPORT ON WATER TUBE BOILERS. No. 7272

Received at London Office MAY 10 1937

Date of writing Report 14th April 1937 When handed in at Local Office 15th April, 1937. Port of Philadelphia

No. in Reg. Bk. — Survey held at Chester. Pa Date, First Survey Dec 8th Last Survey March 30th 1937 (Number of Visits 8)

on the M V. TEXAS. SUN Tons Gross / Net

Master — Built at Chester. Pa By whom built Sun Ship Bldg Co When built 1937

Engines made at Chester Pa By whom made Sun Ship Bldg Co When made "

Boilers made at Carteret N.J. Dansville N.Y. By whom made Foster Wheeler Corp. When made "

Registered Horse Power 1145 Owners Sun Oil Co Port belonging to Philadelphia

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

(Letter for Record S) Date of Approval of plan Nov 4th 1937. Number and Description or Type of Boilers 1 Water tube. Exhaust Gas fired only. Working Pressure 200 lbs Tested by Hydraulic Pressure to 400 Date of Test March 16th

No. of Certificate 698 Can each boiler be worked separately Total Heating Surface of Boilers 1872 D

Is forced draught fitted No Area of fire grate (coal) in each Boiler Total grate area of boilers in vessel including Main and Auxiliary

No. and type of burners (oil) in each boiler 2 Spring Loaded Area of each valve 1.77 D" 1.69 Pressure to which they are adjusted 110 lbs each boiler

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 Height of Boiler Width and Length 6-7½"

Steam Drums:—Number in each boiler 1 Inside diameter 30" Material of plates Steel Thickness 7/16"

Range of Tensile Strength 60/70000 lb 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 Thickness of straps Percentage strength of long. joint:—Plate 90% allowed Rivet

Diameter of tube holes in drum 2 1/32" Pitch of tube holes 4 7/8" Percentage strength of shell in way of tubes 58.4%

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 227 lb

Steam Drum Heads or Ends:—Material Steel Thickness ½" & 19/32 Radius or how stayed 30" Radius

Size of Manhole or Handhole 12"x16" **Water Drums:**—Number in each boiler None Inside Diameter

Material of plates Thickness Range of tensile strength Are drum shell plates welded or flanged Description of riveting:—Cir. seams long. seams 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 Rivet Diameter of tube holes in drum Pitch of tube holes

Percentage strength of drum shell in way of tubes **Water Drum Heads or Ends:**—Material Thickness

Radius or how stayed Size of manhole or handhole **Connecting Headers or ~~Sections~~:**—Number 1 - 6" diam

Material Steel Thickness Er. Ky pipe Tested by Hydraulic Pressure to 400 lbs. Material of Stays

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

Thickness 11 BWG Number 48 Elements **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 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 Gaskets or joints:—Manhole Handhole Handhole plates

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building — During progress of work in shops: Dec 8, 28. 1936. Jan 4, 20. 1937.

During erection on board vessel: Feb 5. 8. March 16. 30.

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits 8.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The above boiler has been built under Special Survey, and in accordance with the approved plans, the workmanship & materials are good. The boiler has been satisfactorily installed on board the vessel, tested by hydraulic pressure to 165 lbs & safety valves adjusted under steam to 110 lbs. In my opinion it is eligible to receive the notation of 1 WTDB 200 lbs exhaust gas fired only.

Survey Fee Installation $25.00 Sun SB Co When applied for, 20th April per R.U. 1937.

Travelling Expenses (if any) £ : : When received, 10.6 1937

Fee charged at Cleveland

W. H. Cunham

Engineer Surveyor to Lloyd's Register of Shipping.

NEW YORK APR 28 1937

Committee's Minute

Assigned 1 WTDB (Upper) 200 lbs Exhaust Gas Fired)