Rpt. 5c.

REPORT ON WATER TUBE BOILERS. No. 37267

Received at London Office MAY 10 19[illegible]

Date of writing Report 11 Jan 1937 When handed in at Local Office 11 Jan 1937 Port of NEW YORK

No. in Reg. Bk. — Survey held at CARTARET N.J. Date, First Survey 16 Nov Last Survey 28 DEC 1936

on the M.V. (SUN S.B. Co. HULL N° 159) (Number of Visits 5) Tons { Gross / Net

Master — Built at CHESTER PA By whom built SUN S.B. Co. When built 1937

Engines made at CHESTER PA. CARTARET N.J. DANSVILLE N.Y. By whom made SUN S B Co When made 1937

Boilers made at CLEVELAND, O. & PHILADELPHIA By whom made FOSTER WHEELER CORP^N When made 1937

Registered Horse Power 1145 Owners SUN OIL Co. Port belonging to

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

(Letter for Record S) Date of Approval of plan 7 Nov 1936 **Number and Description or Type of Boilers** ONE SECTIONAL HEADER TYPE Working Pressure 245 LBS Tested by Hydraulic Pressure to 490 LBS Date of Test 17 DEC 1936.

No. of Certificate — Can each boiler be worked separately ✓ **Total Heating Surface of Boilers** 5260 SQ FT

Is forced draught fitted — **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 — No and description of safety valves on each boiler — Area of each valve — Pressure to which they are adjusted

Are they fitted with easing gear — 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

Steam Drums:—Number in each boiler ONE ✓ Inside diameter 42" ✓ Material of plates STEEL ✓ Thickness 15/16" ✓

Range of Tensile Strength 60/70 000 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 ✓ Thickness of straps ✓ Percentage strength of long. joint:—Plate 90% ALLOWED Rivet ✓

Diameter of tube holes in drum 4 1/32" ✓ Pitch of tube holes 7" ✓ Percentage strength of shell in way of tubes 42.4

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 250 LBS ✓ **Steam Drum Heads or Ends:**—Material STEEL ✓ Thickness 15/16" ✓ Radius or how stayed 42" 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 ✓ **Headers or Sections:**—Number

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

Thickness Number **Steam Dome or Collector:**—Description of Joint to Shell

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 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,
Foster Wheeler Corporation
Manufacturer.
Jos. F. Kelly Vice Pres.

Dates of Survey while building: During progress of work in shops — 1936 Nov 16, 24, 30, Dec 17, 28

During erection on board vessel —

Is the approved plan of boiler forwarded herewith

Total No. of visits 5 AT NEW YORK

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The Fusion Welded Drum for the Water Tube Donkey Boiler of this vessel has been built & tested in accordance with the Rules & approved plans & the workmanship & material are good. For particulars of tests please see special report herewith. The drum has been forwarded to Philadelphia to be fitted to the boiler & when this has been done in accordance with the Rules & to the satisfaction of the Surveyor, it will be eligible, in my opinion, to receive the 1 WTOB 245 LBS (WITH DATE)

Survey Fee ... ... £ $ 150 00 :

Travelling Expenses (if any) £ NY½ : 10 00 :

When applied for 20th April 1937 at Phila. Notation

When received, 19 See Phil. 7272

FEE TO BE DIVIDED 1/3 CLEVE 1/3 N.Y. 1/3 PHILA

John S. Heck
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK APR 28 1937

Assigned See attached Rpt. Phl. 7272

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