

REPORT ON WATER TUBE BOILERS.

No. 6889

Received at London Office

Date of writing Report 21st March 1935 When handed in at Local Office 30th March 1935 Port of Philadelphia

No. in Survey held at Camden N.J. Date, First Survey 25 October 34 Last Survey 1935
 Reg. Bk. on the Hull N° 414 (Now Named) Socony Vacuum (Number of Visits 10) Tons { Gross 9511.70
 Net 5894
 Master ✓ Built at Camden N.J. By whom built New York S.B. Corp. When built 1935-
 Engines made at Trenton N.J. By whom made De Laval Steam Turbine Co. When made 1934
 Boilers made at Cleveland O. & Cartaret N.J. By whom made Foster Wheeler Corporation When made 1934
 Shaft Registered Horse Power 4000 Owners Socony Vacuum Transportation Co. Port belonging to New York

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Acis Steel Co. & Lukens Steel Co.
 (Letter for Record ✓) Date of Approval of plan 12th April 1934 Number and Description or Type
 of Boilers 3 water tube, 1 cargo (saturated), 2 main (superheated) Working Pressure main 405 Tested by Hydraulic Pressure to main 605 Date of Test January 23
 No. of Certificate 673.1674 Can each boiler be worked separately yes Total Heating Surface of Boilers 11164 sq feet
 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 ✓ No. and type of burners (oil) in each boiler 3 main } Load Type No. and description of safety valves on
 each boiler 2 spring loaded Area of each valve 7'07 sq inches Pressure to which they are adjusted main 405 main 430
 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 80' Height of Boilers main 17'3 1/2" cargo 16'4 1/2" fitted Width and Length main 16'4 x 32" cargo 16'4 x 32"
Steam Drums:—Number in each boiler One Inside diameter 48" Material of plates Steel Thickness 1 1/16" Description of riveting:—
 Range of Tensile Strength 64000 lbs minimum Are drum shell plates welded or flanged no Description of riveting:—
 Cir. seams DOUBLE long. seams DR. D.B.S. Diameter of rivet holes in long. seams 1 1/32" Pitch of Rivets 4 1/2"
 Lap of plates or width of butt straps 14'64" Thickness of straps 1 1/16" & 1 1/8" Percentage strength of long. joint:—Plate 69 Rivet 71
 Diameter of tube holes in drum 1 1/32" & 2 1/32" Pitch of tube holes 3 1/32" x 6 1/16" Percentage strength of shell in way of tubes 49'4
 If Drum has a flat side state method of staying ✓ Depth and thickness of girders at centre
 (if fitted) ✓ Distance apart ✓ Number and pitch of stays in each ✓ Working pressure
 by rules 450 lbs **Steam Drum Heads or Ends:**—Material Steel Thickness 1 1/32" Radius or how stayed 48"
 Size of Manhole or Handhole 12" x 16" **Water Drums:**—Number in each boiler Two Inside Diameter 30"
 Material of plates Steel Thickness 1 1/32" Range of tensile strength 64000 lbs minimum Are drum shell plates welded
 or flanged no Description of riveting:—Cir. seams Double long. seams DR. D.B.S. Diameter of Rivet Holes in
 long. seams 1 1/32" Pitch of rivets 4 5/16" Lap of plates or width of butt straps 13" Thickness of straps 3/4" & 1 1/16"
 Percentage strength of long. joint:—Plate 69 Rivet 78 Diameter of tube holes in drum 1 1/32" & 2 1/32" Pitch of tube holes 3 1/32" x 6 1/16"
 Percentage strength of drum shell in way of tubes 49'4 **Water Drum Heads or Ends:**—Material Steel Thickness 1 1/32" & 1 1/32"
 Radius or how stayed 30" Size of manhole or handhole 12" x 16" **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 1 1/2" & 2"
 Thickness 7/32" & 7/48" Number main 962 each cargo 12/4 **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 Convection Date of Approval of Plan 12th April 1934 Tested by Hydraulic Pressure to 900 lbs
 Date of Test 25th January 35 Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler cannot be shut
 Diameter of Safety Valve 2" Pressure to which each is adjusted 405 lbs Is easing gear fitted yes
 Is a drain cock or valve fitted at lowest point of superheater yes Number, diameter, and thickness of tubes 1 1/4 diam 7/32 thick
 Spare Gear. Tubes 142 Gaskets or joints:—Manhole 3 Handhole 72 Handhole plates 174

The foregoing is a correct description,

New York Shipbuilding Corporation Manufacturer.
 per P. A. Haubert Chief Engineer

Dates of Survey { During progress of work in shops - - } Is the approved plan of boiler forwarded herewith yes
 while building { During erection on board vessel - - } Total No. of visits 10
25th October 34 until 27th February 1935
October November December January February
25. 1. 26. 3. 18. 16. 23. 25. 31. 27.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The above boilers have been installed
on board the vessel, and subjected to a hydraulic pressure of 675 lbs per sq in, with
satisfactory results, the safety valves have been adjusted under steam as noted above.
The boilers are eligible in my opinion to receive the record of 450 lbs in the Register Book.

Survey Fee ... \$ ✓ : : } When applied for, 19
 Travelling Expenses (if any) \$ ✓ : : } When received, 19

NEW YORK APR 3 - 1935

M. Dickson & W. T. Kimham
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned 3 W.T.B. - Steam Pressure 450 lbs