

Rpt. 5c.

REPORT ON WATER TUBE BOILERS

DRUMS

No. 706

Received at London Office

12 JUL 1935

Date of writing Report Oct. 16th, 1934 When handed in at Local Office 19 Port of Cleveland, Ohio.

No. in Survey held at Cleveland, Ohio. Date, First Survey July 3rd, Last Survey Sept. 19th 1934
 Reg. Bk. on the S.S. MAGNOLIA (Number of Visits 21) Tons { Gross 9511 Net 5894
 Master Trenton No Built at Camden, N.J. By whom built New York S.S. Co When built 1935
 Engines made at Trenton No By whom made De Laval Steam Turbine Co When made 1934
 Drums Boilers made at Cleveland, Ohio. By whom made Foster Wheeler Corp. When made 1934
 Registered Horse Power 4000 Owners Frany Neum Transportation Co. Port belonging to New York

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

(Letter for Record) Date of Approval of plan April 12th, 1934. Number and Description or Type of Boilers 3 upper and 6 lower Working Pressure 450 lbs Tested by Hydraulic Pressure to 725 lbs Date of Test 7/16/34 to 8/21/34

No. of Certificate 245-246-247 Can each boiler be worked separately Total Heating Surface of Boilers

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 48" Material of plates steel Thickness 1-9/16"

Range of Tensile Strength 64,000 lbs. min. Are drum shell plates welded or flanged no Description of riveting:—
Cir. seams D.R. long. seams D.R. D.B.S. Diameter of rivet holes in long. seams 1-15/32" Pitch of Rivets 4.8"

Cap of plates or width of butt straps 16.4" Thickness of straps 1-1/16" Percentage strength of long. joint:—Plate 69.5 Rivet 62.0

Diameter of tube holes in drum 1-17/32" & 2-1/32" Pitch of tube holes 3-1/32" & 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 512 lbs.

Steam Drum Heads or Ends:—Material steel Thickness 1-27/32" 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 1-3/32" Range of tensile strength 64000 lbs. min. Are drum shell plates welded or flanged no Description of riveting:—Cir. seams D.R. long. seams D.R. D.B.S. Diameter of Rivet Holes in long. seams 1-7/32" Pitch of rivets 4-3/8" Cap of plates or width of butt straps 13" Thickness of straps 3/4" & 13/16"

Percentage strength of long. joint:—Plate 72.0 Rivet 67.0 Diameter of tube holes in drum 1-17/32" & 2-1/32" Pitch of tube holes 3-1/32" & 6-1/16" Percentage strength of drum shell in way of tubes 49.4

Water Drum Heads or Ends:—Material steel Thickness 1-3/32" & 1-7/32"

Radius or how stayed 30" Size of manhole or handhole 12" x 16" Headers or Sections:—Number Material Thickness Tested by Hydraulic Pressure to 725 lbs. Material of Stays

Area at smallest part Area supported by each stay Working Pressure by Rules 562 lbs. Tubes:—Diameter 1-1/2" & 2" Thickness NO. 10 & 9 B.W.G. Number 2, 898 - 1-1/2" & 64 - 2" Steam Dome or Collector:—Description of Joint to Shell

Percentage strength of Joint Diameter 1-108-2" 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 Gaskets or joints:—Manhole Handhole Handhole plates

The foregoing is a correct description,
C. Prigent Works Mgr. Manufacturer.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This report covers the Drums for three

boilers intended for installation in New York Shipbuilding Company's Hull No. 415. The drums

were built in accordance with the approved plans. The materials and workmanship were found to be

sound and efficient. Boiler certificates Nos. 245-6-7 and approved plans accompany this report.

Survey Fee See M. Mak report No 35684. When applied for, 19

Travelling Expenses (if any) £ : : } When received, 19

E. Drummond
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK JUL 3 - 1935 *hmj*

Assigned See Phl. Rpt. 6876

