

REPORT ON WATER TUBE BOILERS

No. 4229

Received at London Office

28 MAY 1927

Date of writing Report *May 11th 1927* When handed in at Local Office *May 12th 1927* Port of *Newport News, Va.*
 No. in Survey held at *Newport News, Va.* Date, First Survey *Dec. 6, 1926* Last Survey *April 7th 1927*
 Reg. Bk. *471 Supp* on the *Native Tube Boilers for the Steel Steam Trawler "Droquois"* Number of Visits *11* Tons { Gross *6209* Net *3405*
 Built at *Newport News, Va.* By whom built *Newport News S. B. & D. Co.* When built *1927-4*
 Engines made at *Newport News, Va.* By whom made *Newport News S. B. & D. Co.* When made *1927-4*
 Boilers made at *Bayonne N. J.* By whom made *Wm. Babcock & Wilcox* When made *1927-4*
 Registered Horse Power *2248* Owners *New York & Maine S. S. Corp.* Port belonging to *New York.*

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel *Bethlehem Steel Company*

Letter for Record *S* Date of Approval of plan *7/4/1927* Number and Description or Type *6, Native type (B.W. type)*
 Boilers *216* Working Pressure *275 lbs.* Tested by Hydraulic Pressure to *550 lbs.* Date of Test *7/4/1927*
 No. of Certificate *216* Can each boiler be worked separately *Yes.* Total Heating Surface of Boilers *29784 sq. ft.*
 Forced draught fitted *Yes.* Area of fire grate (coal) in each Boiler *12.56 sq. ft.* Total grate area of boilers in vessel including main and Auxiliary *4* No. and type of burners (oil) in each boiler *4, B.W.* No. and description of safety valves on each boiler *One - 4 Duplex of Mon.* Area of each valve *12.56 sq. ft.* Pressure to which they are adjusted *275 lbs.*
 Smallest distance between boilers or uptakes and bunkers or woodwork *3'-0"* Height of Boiler *13'-9 3/4"* Width and Length *17'-2 1/2" x 9'-3 1/2"*
 Steam Drums:—Number in each boiler *One* Inside diameter *42"* Material of plates *Steel* Thickness *2 1/32"*
 Range of Tensile Strength *60-70000 lbs.* Are drum shell plates welded or flanged *No.* Description of riveting:—
 Cir. seams *D.R. L.A.P.* long. seams *T.R.D.B.S.* Diameter of rivet holes in long. seams *29/32"* Pitch of Rivets *2 9/32" x 4 9/16"*
 Width of butt straps *1 3/4" x 1 3/16"* Thickness of straps *1 1/16"* Percentage strength of long. joint:—Plate *80-1* Rivet *91*
 Diameter of tube holes in drum *4 1/2"* Pitch of tube holes *7"* Percentage strength of shell in way of tubes *121.6*
 Drum has a flat side state method of staying *Yes.* Depth and thickness of girders at centre (fitted) *Yes.* Distance apart *Yes.* Number and pitch of stays in each *Yes.* Working pressure rules *277 lbs.* Steam Drum Heads or Ends:—Material *Steel* Thickness *3/16"* Radius *on how stayed* *42"*
 Size of Manhole or Handhole *11" x 15"* Water Drums:—Number in each boiler *Yes.* Inside Diameter *Yes.*
 Material of plates *Yes.* Thickness *Yes.* Range of tensile strength *Yes.* Are drum shell plates welded or flanged *Yes.* Description of riveting:—Cir. seams *Yes.* long. seams *Yes.* Diameter of Rivet Holes in long. seams *Yes.* Pitch of rivets *Yes.* Lap of plates or width of butt straps *Yes.* Thickness of straps *Yes.*
 Percentage strength of long. joint:—Plate *Yes.* Rivet *Yes.* Diameter of tube holes in drum *Yes.* Pitch of tube holes *Yes.*
 Percentage strength of drum shell in way of tubes *Yes.* Water Drum Heads or Ends:—Material *Yes.* Thickness *Yes.*
 Radius or how stayed *Yes.* Size of manhole or handhole *Yes.* Headers or Sections:—Number *29*
 Material *Steel* Thickness *5/8"* Tested by Hydraulic Pressure to *550 lbs.* Material of Stays *Yes.*
 Area at smallest part *Yes.* Area supported by each stay *Yes.* Working Pressure by Rules *Yes.* Tubes:—Diameter *2"*
 Thickness *No. 10 gauge.* Number *9576* Steam Dome or Collector:—Description of Joint to Shell *Yes.*
 Percentage strength of Joint *Yes.* Diameter *Yes.* Thickness of shell plates *Yes.* Material *Yes.*
 Description of longitudinal joint *Yes.* Diameter of Rivet Holes *Yes.* Pitch of Rivets *Yes.* Working Pressure of shell Rules *Yes.* Crown or End Plates:—Material *Yes.* Thickness *Yes.* How stayed *Yes.*

SUPERHEATER. Type *B.W.* Date of Approval of Plan *7/4/1927* Tested by Hydraulic Pressure to *550 lbs.*
 Date of Test *7/4/1927* Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler *Yes.*
 Diameter of Safety Valve *1"* Pressure to which each is adjusted *285 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 *980, 1 1/4", No. 12 B.W.G.*
 Spare Gear. Tubes *18-4", 6-2"* Gaskets or joints:—Manhole *Yes.* Handhole *Yes.* Handhole plates *24*

The foregoing is a correct description, Manufacturer. *Yes.*

Is the approved plan of boiler forwarded herewith *Yes.*

Total No. of visits *11.*

Dates of Survey *1926, Dec. 6, 9, 20, 29, 30.*
 While *1927, Jan. 24, Feb. 3, 17, Mar. 13, 31, April 7.*
 Working board vessel *Yes.*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These Boilers have now been re-inspected and found to be in good condition and efficiently secured in place. All mounting pipes and valves subjected to a hydraulic test of 550 lbs per sq. inch and found tight & sound. The Safety Valves have been tested to blow at 275 lbs per sq. inch.*

Survey Fee *£* : : When applied for, *19*
 Travelling Expenses (if any) *£* : : When received, *19*

J. T. Hudson
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *NEW YORK MAY 18 1927*
 Assigned *6 W.T.B. - 275 lbs sq. inch Steam Pressure*

