

## REPORT ON WATER TUBE BOILERS.

No. 19673

TUE. 10 JAN. 1921

Date of writing Report Dec. 13 1920 When handed in at Local Office Dec. 15 1920 Port of New York

No. in Survey held at New London Conn Date, First Survey \_\_\_\_\_ Last Survey \_\_\_\_\_ 191  
 Reg. Bk. on the Water tube boilers for the S/S "Kopalcong" Number of Visits \_\_\_\_\_ Tons { Gross 6216  
 Net 3805  
 Master Masters Built at Groton Conn By whom built Groton Iron Works When built 1920-12  
 Engines made at New City N.Y. By whom made Vulcan Iron Works Inc When made 1920-12  
 Boilers made at Phonerville Pa. By whom made Heise Safety Boiler Company When made 1920-12  
 Registered Horse Power 654.7 Owners U.S. Shipping Board Port belonging to Groton Conn

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Midvale Steel & Ordnance Co.  
 (Letter for Record 2) Date of Approval of plan \_\_\_\_\_ Number and Description or Type  
 of Boilers 3 Water tube Working Pressure 225 Tested by Hydraulic Pressure to 450 Date of Test 3/11/20  
 No. of Certificate \_\_\_\_\_ Can each boiler be worked separately Yes Total Heating Surface of Boilers 9510 sq ft  
 Is forced draught fitted Yes Area of fire grate (coal) in each Boiler 102 sq ft Total grate area of boilers in vessel including  
 Main and Auxiliary 603 sq ft No. and type of burners (oil) in each boiler 4 White No. and description of safety valves on  
 each boiler 2 Spring loaded Area of each valve 9.62 sq in Pressure to which they are adjusted 195 lbs.  
 Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 3-0" Height of Boiler 11-4 3/4" Width and Length 10-0 1/2" x 13-7 1/2"  
 Steam Drums:—Number in each boiler 6 1/2 Inside diameter 42" Material of plates Steel Thickness 7/32"  
 Range of Tensile Strength 58000 lbs Are drum shell plates welded or flanged No Description of riveting:—  
 Cir. seams S.R.L.A.P. long. seams D.R.D.B.S. Diameter of rivet holes in long. seams 15/16" Pitch of Rivets 3 1/2"  
 Lap of plates or width of butt straps 16 9/16 1/2" Thickness of straps 7/32" Percentage strength of long. joint:—Plate 73.2 Rivet 110  
 Diameter of tube holes in drum 3 1/2" Pitch of tube holes 7" Percentage strength of shell in way of tubes 49.5  
 If Drum has a flat side state method of staying Yes Depth and thickness of girders at centre  
 (if fitted) Yes Distance apart Yes Number and pitch of stays in each Yes Working pressure  
 by rules 389 lbs. Steam Drum Heads or Ends:—Material Steel Thickness 5/8" Radius on how stayed 42"  
 Size of Manhole on Handhole 15" x 11" 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 2 Iron  
 Material Steel Thickness 7/32" Tested by Hydraulic Pressure to 450 lbs. Material of Stays Iron  
 Area at smallest part 1.47 sq ft Area supported by each stay 33 sq ft Working Pressure by Rules 335 lbs. Tubes:—Diameter 3 1/2"  
 Thickness 7/32" 3 W.G. Number 798 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  
 by Rules Yes Crown or End Plates:—Material Yes Thickness Yes How stayed Yes

SUPERHEATER. Type Heise Date of Approval of Plan \_\_\_\_\_ Tested by Hydraulic Pressure to 450 lbs.  
 Date of Test 3/11/20 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 1/2" Pressure to which each is adjusted 210 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 52 1 1/2" N° 16 gauge  
 Spare Gear. Tubes \_\_\_\_\_ Gaskets or joints:—Manhole \_\_\_\_\_ Handhole \_\_\_\_\_ Handhole plates \_\_\_\_\_

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops -- }  
 while building { During erection on board vessel -- }  
 12- \_\_\_\_\_

Is the approved plan of boiler forwarded herewith No.

Total No. of visits \_\_\_\_\_

## GENERAL REMARKS (State quality of workmanship, opinions as to class, &amp;c.)

These Boilers and Superheaters have been constructed under the survey of the American Bureau of Shipping and now efficiently secured in place. They were tested by hydraulic pressure to 450 lbs per sq in my presence & found tight & sound. Mounting fitted and Safety valves adjusted under steam.

Survey Fee ... £ : : When applied for, 191  
 Travelling Expenses (if any) £ : : When received, 191

C. J. Hudson  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York JAN - 4 1921

Assigned

See N.Y. Rpt 19673.

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