

# REPORT ON WATER TUBE BOILERS.

29 APR 1948

Received at London Office.

Writing Report 19 \_\_\_\_\_ When handed in at Local Office 19 \_\_\_\_\_ Port of Seattle, Washington

Survey held at Seattle, Washington Date, First Survey Oct. 13, 1947 Last Survey February 20th 19 48

on the Steel Tank Steamer "MINERVE" (ex "Donner Lake") (Number of Visits 26) Tons { Gross 10448  
Net 6301

Portland, Oregon By whom built Kaiser Company, Inc. When built 1944

made at Lynn, Mass. By whom made General Electric Co. When made 1944

made at St. Louis, Missouri By whom made Combustion Engineering Co. When made 1944

Net Horse Power 1324 Owners Government of France Port belonging to LeHavre (Contemplated)

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Bethlehem & Worth

Approval of plan American Bureau Number and Description or Type

Boilers 2 W.T. Single pass straight tube Working Pressure 500 PSI Tested by Hydraulic Pressure to 750 PSI Date of Test \_\_\_\_\_

Certificate  Can each boiler be worked separately Yes Total Heating Surface of Boilers 11354 sq.ft.

and draught fitted Yes Area of fire grate (coal) in each Boiler Oil Fired

and type of burners (oil) in each boiler 4 Todd, Pressure Type, Hagen Meter Co. controls No. and description of safety valves on

boiler 2-2 1/2" Dia. Spring Loaded High Lift Area of each set of valves per boiler { per rule 7.00 sq.in.  
as fitted 9.80 sq.in. Pressure to which they

are fitted 500 lbs. per sq.in. Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter

donkey boiler  Smallest distance between boilers or uptakes and bunkers 5'0" Height of boiler 21'0"

and Length 11'10" x 16'0" Steam Drums:—Number in each boiler One Inside diameter 42"

Thickness of plates 3/4" - 1-19/32" Range of Tensile Strength 70,000 lbs. Min. Are drum shell plates welded

and welded Welded If fusion welded, state name of welding firm Combustion Engineering Co. Have all the requirements of the rules

for Class I vessels been complied with Yes, AB & USCG Description of riveting:—Cir. seams  long. seams

Number of rivet holes in long. seams  Pitch of rivets  Thickness of straps  Percentage strength of

long. joint:—Plate  Rivet  Diameter of tube holes in drum 4" Pitch of tube holes 7"

Percentage strength of shell in way of tubes  Steam Drum Heads or Ends:—Range of tensile strength 70,000 Min.

Thickness of plates 1-1/4" Radius or how stayed Ellipsoidal Size of manhole or handhole 12" x 16" Water Drums:—Number

boiler  Inside Diameter  Thickness of plates  Range of tensile strength  Are drum shell plates

or flanged  If fusion welded, state name of welding firm  Have all the requirements of the rules

for Class I vessels been complied with  Description of riveting:—Cir. seams  long. seam

Number of rivet holes in long. seams  Pitch of rivets  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:—Range of Tensile strength

Thickness of plates  Radius or how stayed  Size of manhole or handhole

Sections or Sections:—Number 14 Material O.H.S. Thickness 9/16 3/4" Tested by Hydraulic Pressure to 1000 PSI

Diameter 1 1/4", 1 1/2", 2", 3 1/4", 4", 4 1/2" thickness 11, 13, 14, 10, 5 or 6 BWC Number 219, 1148-882, 56, 36 Steam Dome or Collector:—Description of

Shell  Inside diameter  Thickness of shell plates \_\_\_\_\_ Range of tensile

\_\_\_\_\_ Description of longitudinal joint  If fusion welded, state name of welding

\_\_\_\_\_ Have all the requirements of the rules for Class I vessels been complied with  Diameter of rivet holes

Percentage strength of long. joint:—Plate  Rivet  Thickness of straps  Percentage strength of long. joint

Drum or End Plates:—Range of tensile strength  Thickness  Radius or how stayed

Superheater. Headers:—Number in each boiler Two Inside Diameter 7-1/4" Square

Thickness 7/8" Material O.H.S. Range of tensile strength 55,000 Lbs. Min. Are drum shell plates welded

and welded  If fusion welded, state name of welding firm  Have all the requirements of the rules

for Class I vessels been complied with  Description of riveting:—Cir. seams  long. seams

Number of rivet holes in long. seams  Pitch of rivets  Thickness of straps  Percentage strength of

long. joint:—Plate  Rivet  Diameter of tube holes in drum 1-1/4" Pitch of tube holes  Percentage strength of

shell in way of tubes  Drum Heads or Ends:—Thickness  Range of tensile strength

Radius or how stayed  Size of manhole or handhole  Number, diameter, and thickness of tubes

Tested by Hydraulic Pressure to  Date of Test  Is a safety valve fitted to each section of the superheater which

can shut off from the boiler Cannot be shut off No. and description of Safety Valves One 1-1/2" Single High Lift Area of each set

of valves 1.767 sq. ins. Pressure to which they are adjusted 474 lbs. per sq. in. Is easing gear fitted  Yes

Gear. Has the spare gear required by the rules been supplied  Yes

H.S. per boiler = 4934  
Sft = 743

Total for 2 boilers = 11354

The foregoing is a correct description,

Manufacturer.

During progress of work in shops - - - Is the approved plan of boiler forwarded herewith \_\_\_\_\_

During erection on board vessel - - - Total No. of visits \_\_\_\_\_

Boiler a duplicate of a previous case  If so, state vessel's name and report No. \_\_\_\_\_

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The above W.T. Boilers and Superheaters have been

under the supervision of the American Bureau of Shipping and the U. S. Coast Guard. The scantlings have been

checked as far as practicable. The workmanship is good and the materials sound. For opinions as to class, etc.

See Rpt. 9.

Survey Fee £ \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ When applied for, 19 \_\_\_\_\_

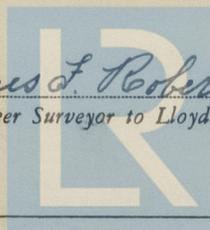
Printing Expenses (if any) £ SEE RPT. 9: \_\_\_\_\_ When received, 19 \_\_\_\_\_

Committee's Minute \_\_\_\_\_

Checked 2 W.T.B. (SPT) 500 lbs.

NEW YORK APR 7 1948

James F. Robertson  
Engineer Surveyor to Lloyd's Register of Shipping.



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