

REPORT ON WATER TUBE BOILERS.

No. 4445

Received at London Office MON. 9 OCT. 1922

Date of writing Report SEP. 14 1922 When handed in at Local Office 191 Port of PHILADELPHIA

No. in Survey held at CAMDEN, N. J. Date, First Survey JAN. 23rd Last Survey AUG. 29th 1922.
 Reg. Bk. on the TWIN SCREW STEAMER "KAMOI" Number of Visits 47 Gross 0222 Tons Net 5704
 Master Built at CAMDEN By whom built NEW YORK S. B. CORP. When built 1922.
 Engines made at SCHENECTADY, N. Y. By whom made GEN. ELECTRIC CO. When made 1922.
 Boilers made at CAMDEN By whom made NEW YORK S. B. CORP. When made 1922.
 Registered Horse Power Owners IMPERIAL JAPANESE NAVY. Port belonging to

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel MIDVALE STEEL CO.
 (Letter for Record S.) Date of Approval of plan NOV. 17, 1921. Number and Description or Type of Boilers 4 WATER TUBE. EXPRESS TYPE Working Pressure 275 lbs. Tested by Hydraulic Pressure to 463 lbs. Date of Test APRIL 4, 6, 11, 15.
 Nos of Certificates 534.5.6.7. Can each boiler be worked separately YES. Total Heating Surface of Boilers 18572 sq. ft.
 Is forced draught fitted YES. Area of fire grate (coal) in each Boiler 104.47 sq. ft. Total grate area of boilers in vessel including Main and Auxiliary 417.88 sq. ft. No. and type of burners (oil) in each boiler 3. PEABODY. No. and description of safety valves on each boiler TWO—SPRING LOADED. Area of each valve 12.55 sq. in. Pressure to which they are adjusted 275 lbs.
 Are they fitted with easing gear YES. 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 8 1/4" Height of Boiler 13'-4" Width and Length 20'-0" x 12'-6"
 Steam Drums:—Number in each boiler ONE Inside diameter 4'-2" Material of plates O. H. STEEL Thickness 13/16" - 2"
 Range of Tensile Strength 28-32 TONS. Are drum shell plates welded or flanged NO. Description of riveting:—
 Cir. seams D. R. LAP. long. seams D. B. STRAPS Diameter of rivet holes in long. seams 13/32" Pitch of Rivets 5-178"
 Lap of plate or width of butt straps 10 7/8" Thickness of straps 13/16" - 1/4" Percentage strength of long. joint:—Plate 80. Rivet 83.
 Diameter of tube holes in drum 1 3/4" - 1 1/4" Pitch of tube holes 2 13/16" - 1 7/8" Percentage strength of shell in way of tubes 92.99-82.05
 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 280 lbs. Steam Drum Heads or Ends:—Material O. H. STEEL Thickness 1 3/32" - 1 5/32" Radius or how stayed 4'-2"
 Size of Manhole or Handhole 12" x 16" Water Drums:—Number in each boiler TWO Inside Diameter 2'-6"
 Material of plates O. H. STEEL Thickness 3/4" - 1 3/4" Range of tensile strength 28-32 TONS. Are drum shell plates welded or flanged NO. Description of riveting:—Cir. seams D. R. LAP. long. seams D. B. STRAPS Diameter of Rivet Holes in long. seams 13/32" Pitch of rivets 4-943" Lap of plates or width of butt straps 10 7/8" Thickness of straps 41/64" - 49/64"
 Percentage strength of long. joint:—Plate 79.1 Rivet 94. Diameter of tube holes in drum 1 3/4" - 1 1/4" Pitch of tube holes 2 13/16" - 1 7/8"
 Percentage strength of drum shell in way of tubes 88.17-77.78 Water Drum Heads or Ends:—Material O. H. STEEL Thickness 27/32"
 Radius or how stayed 2'-6" Size of manhole or handhole 12" x 16" Headers or Sections:—Number NONE
 Material ————— Thickness ————— Tested by Hydraulic Pressure to ————— Material of Stays 1 3/4" - 1 1/4" O. D.
 Area at smallest part ————— Area supported by each stay ————— Working Pressure by Rules 286 Tubes:—Diameter 1 3/4" - 1 1/4" O. D.
 Thickness No. 9, No. 11 B.W.G. Number 1236-1/4" Steam Dome or Collector:—Description of Joint to Shell NONE
 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 —————

SUPERHEATER. Type TUBULAR Date of Approval of Plan 14-4-22 Tested by Hydraulic Pressure to 463 lbs.
 Date of Test AUG. 15th 1922 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 280 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 46 UNITS 184 TUBES. 1 1/4" - 10 B.W.G.
 Spare Gear. Tubes 10% EACH Gaskets or joints:—Manhole Handhole Handhole plates

The foregoing is a correct description,
 New York Shipb. Corp. J. B. Crey. Manufacturer.
 Asst. Engineer.

Dates of Survey } During progress of JAN. 23, 25, 27, FEB. 2, 7, 8, 13, 15, 17, 20, 27. Is the approved plan of boiler forwarded herewith YES.
 while } work in shops -- MAR. 6, 9, 13, 14, 17, 20, 23, 24, 27, 29, APR. 4, 6.
 building } During erection on } T. 1, 13, 15, 20, 25, MAY 5, 8, 12, 18, 20, 23, 25, 31.
 board vessel } JUNE 19, 21, 29, JULY 10, 11, 20, 27, AUG. 3, 5. Total No. of visits 47.
 29.

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

THE BOILERS HAVE BEEN BUILT UNDER SPECIAL SURVEY, THE MATERIALS AND WORKMANSHIP ARE OF GOOD DESCRIPTION, THEY HAVE BEEN BUILT IN ACCORDANCE WITH THE RULES AND APPROVED PLANS, THEY HAVE BEEN TESTED, TOGETHER WITH THE SUPERHEATERS BY HYDRAULIC PRESSURE TO 463 LBS. PER SQ. IN. & FOUND TIGHT & SOUND.

Survey Fee ... £ SEE RPT. When applied for, 1922
 Travelling Expenses (if any) £ 42. When received, 191

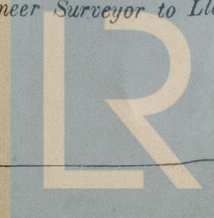
J. B. Crey.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

NEW YORK TUE. 26 SEP. 1922

See Phil. 4445



Lloyd's Register
 Foundation