

# REPORT ON WATER TUBE BOILERS.

5c.

No.

30 AUG 1951

Received at London Office

of writing Report. 5th July 1951. When handed in at Local Office 19. Port of Kobe  
 in Survey held at Hiroshima Date, First Survey 12-6-51 Last Survey 3rd July 1951.  
 Book. (Number of Visits 5) Gross 2244.85  
 on the Steel Single Screw Steam Ship "IKUSHIMA MARU" Tons Net 1224.17  
 at Nagasaki By whom built Nagasaki Shipyard & Engine Works Yard No. 1408 When built 1949-1  
 ines made at " By whom made " Engine No. 564 When made 10-28, 48  
 ers made at " By whom made " Boiler No. 1335 When made 11-20, 48  
 inial Horse Power. 463 Owners. Hamane Kisen Kaisha Port belonging to Kobe

ATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Yawata Iron & Steel Co., Ltd.

te of Approval of plan 21 - 7 - 50 No. and Description or Type  
 Boilers 2 x 3 Water Tube Boiler Working Pressure 20 kg/cm<sup>2</sup> Tested by Hydraulic Pressure to 33.5 kg/cm<sup>2</sup> Date of Test 11-11-48  
 of Certificate Can each boiler be worked separately Yes Total Heating Surface of Boilers (Superheater 55 M<sup>2</sup>) each  
 forced draught fitted Yes Area of Fire Grate (coal) in each Boiler 5.7 M<sup>2</sup>  
 and type of burners (oil) in each boiler No. and description of safety valves on

h boiler 1x Ordinary Type (Spring Type) Area of each set of valves per boiler { per rule 66.9 cm<sup>2</sup>  
 as fitted 2x44.17 cm<sup>2</sup> Pressure to which they

ure adjusted 20.6 kg/cm<sup>2</sup> 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 or woodwork Uptake-Casing 700mm Height of boiler 5400mm

th and length 5162mm x 3900mm Steam Drums:—Number in each boiler 1 Inside diameter 1300 mm  
 ickness of plates Shell P. 19mm Tube P. 38mm Range of tensile strength 41.7 - 47 kg/cm<sup>2</sup> Are drum shell plates welded

flanged No If fusion welded, state name of welding firm Have all the requirements of the Rules

Class I vessels been complied with Description of riveting:—Circ. seams Double Lap long. seams Double Butt  
 meter of rivet holes in long. seams 23 mm Pitch of rivets 89 mm Thickness of straps 16 mm Percentage strength of

g. joint:—Plate 74.2 % Rivet 74.3 % Diameter of tube holes in drum 45.6 mm Pitch of tube holes 79 mm  
 Percentage strength of shell in way of tubes 42.3 % Steam Drum Heads or Ends:—Range of tensile strength 43.2, 46.6 kg/cm<sup>2</sup>

ickness of plates 30, 28mm Radius or how stayed 1100mm Size of manhole or handhole 305mm x 405mm Water Drums:—Number  
 each boiler 2 Inside diameter 1000, 600mm Thickness of plates T38/38mm 42.2-52.5 kg/cm<sup>2</sup> Are drum shell plates

ided or flanged No If fusion welded, state name of welding firm Have all the requirements of the Rules

Class I vessels been complied with Description of riveting:—Circ. seams Single Lap long. seams Double Butt  
 meter of rivet holes in long. seams 23 mm Pitch of rivets 89 mm Thickness of straps Large 14 12 mm Small 12 12 mm

Percentage strength of long. joint:—Plate 74.2 % Rivet 102.5 % Diameter of tube holes in drum 45.6 mm Pitch of tube holes 79 mm  
 Percentage strength of drum shell in way of tubes 42.3 % Water Drum Heads or Ends:—Range of tensile strength 42.05 - 42.4 kg/cm<sup>2</sup>

ickness of plates Large 25, 22mm Small 17, 15mm Radius or how stayed 800mm Size of manhole or handhole 305 x 405mm  
 aders or Sections:—Number Material Thickness Tested by hydraulic pressure to

bes:—Diameter Out Side 45mm Thickness 3.5, 4.5 mm Number 583 Steam Dome or Collector:—Description of  
 nt to shell Inside diameter Thickness of shell plates Range of tensile

ength Description of longitudinal joint If fusion welded, state name of welding

Have all the requirements for the Rules for Class I vessels been complied with Diameter of rivet holes

ch of rivets Thickness of straps Percentage strength of long. joint plate rivet

own or End Plates:—Range of tensile strength Thickness Radius or how stayed  
 PERHEATER, Drums or Headers:—Number in each boiler 2 Inside diameter Section 155x150 mm

ickness 25 mm Material Steel Plate Range of tensile strength 40.84-50.6 kg/cm<sup>2</sup> Are drum shell plates welded  
 flanged Welded If fusion welded, state name of welding firm Nagasaki S.Y. & Eng.W. Have all the requirements of the Rules

Class I vessels been complied with Yes Description of riveting:—Circ. seams long. seams

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

g. joint:—Plate Rivet Diameter of tube holes in drum Pitch of tube holes Percentage strength of

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

dus or how stayed Size of manhole or handhole Number, diameter, and thickness of tubes 31x29mm x 2.6mm  
 sted by hydraulic pressure to 40.0 kg/cm<sup>2</sup> Date of test 18-11-48 by N.K. Is a safety valve fitted to each section of the superheater which

be shut off from the boiler Yes No. and description of safety valves 1x Ordinary Type (Spring Type) Area of each set  
 valves 19.63 cm<sup>2</sup> Pressure to which they are adjusted 19.6 kg/cm<sup>2</sup> Is easing gear fitted Yes

are Gear. Has the spare gear required by the Rules been supplied Yes

The foregoing is a correct description,

Manufacturer.

ates During progress of work in shops - -  
 Survey While During erection on board vessel - -  
 lding

Is the approved plan of boiler forwarded herewith

Total No. of visits

this boiler a duplicate of a previous case No. If so, state vessel's name and report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. See Rpt NO 382. (Rpt 9) attached.

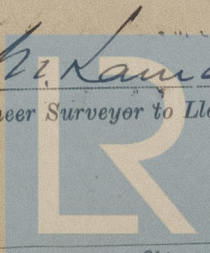
Survey Fee ... f : : When applied for 19  
 Travelling Expenses (if any) f : : When received 19

Date

FRI. 19 OCT 1951

Committee's Minute

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register of Shipping Foundation

015009-015014-0327