

REPORT ON WATER TUBE BOILERS.

No. 30406

Received at London Office

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of writing Report 13th Oct. 19 59 When handed in at Local Office 19 Port of YOKOHAMA
 in Survey held at Yokohama Date, First Survey 26th Dec. 1958 Last Survey 1st October 19 59
 Book. (Number of Visits 49) Gross 21973.68 Tons Net 13023.14
 on the M.V. "KOWA MARU" By whom built Nippon Kokan K.K., Tsurumi Shipyard Yard No. 760 When built 1959 - 9
 at Yokohama By whom made Mitsubishi Nippon Heavy Industries Ltd., Engine No. D37822 When made 1959 - 6
 nes made at Yokohama By whom made Nippon Kokan K.K., Boiler No. B 322 (S) When made 1959 - 9
 rs made at Yokohama Owners Taiheiyō Kaiun Kabushiki Kaisha Port belonging to Tokyo
 or Register Book

TER TUBE BOILERS MAIN/AUXILIARY, OR/DONKEY. Manufacturers of Steel Nippon Kokan K.K.; Japan Steel Works Ltd.

of Approval of plan 20-1-59, 21-1-59, 17-3-59 No. and Description or Type
 um Type Marine Water Tube Boiler Working Pressure 22 kg/cm² Tested by Hydraulic Pressure to 36.5 kg/cm² Date of Test 1-8-59 (S)
 oilers Water Wall Total Heating Surface of Boilers 307.9 x 2 = 615.8 m² Superheaters
 of Certificate YBC-135-A Can each boiler be worked separately Yes Area of Fire Grate (coal) in each Boiler
 f Economisers 85 = 42.5 m² Is forced draught fitted Yes 3-Mechanical Pressure Atomizing Type No. and description of safety valves on
 and type of burners (oil) in each boiler One Set of 75 x 75mm Duplex Improved High Lift Safety Valve Fitted on Steam Drum and Set to Area of each set of valves per boiler approved as fitted 8835.8 mm² Pressure to which they
 boiler Lift at 22.6 kg/cm² Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter
 adjusted 22.6 kg/cm² donkey boiler No. 4 Fresh Water Tank Height of boiler 5283 mm
 with and length about 4250 x 467 mm Steam Drums: Number in each boiler (S) 47.7-47.6 (F) 50.3-49.1 kg/mm² Inside diameter 1386mm 1400mm 700mm
 thickness of plates Shell 18mm Tube 46mm Range of tensile strength 49.7-49.4 49.7-49.4 kg/mm² Are drum shell plates welded
 flanged welded If fusion welded, state name of welding firm Nippon Steel Tube Co., Tsurumi 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 Rivet Diameter of tube holes in drum 38.7 ± 0.1 mm Pitch of tube holes 130mm
 1. joint: Plate Rivet 53% 35.3% Steam Drum Heads or Ends: Range of tensile strength 305 x 405mm Water Drums: Number
 percentage strength of shell in way of tubes 26mm 15 Radius or how stayed 1220mm & 230mm Size of manhole or handhole P.S. 47.3-48.1 kg/mm² Are drum shell plates
 thickness of plates 16mm 15mm Thickness of plates Tube 30mm Range of tensile strength 47.3-47.5 kg/mm² Have all the requirements of the Rules
 each boiler 1 Inside diameter 371 & 380mm Thickness of shell plates 8 x 2 = 16 Tested by hydraulic pressure to 36.5 kg/cm²
 ded or flanged welded If fusion welded, state name of welding firm Nippon Kokan K.K., Tsurumi Shipyard long. seams
 0-3-5 Class I vessels been complied with Yes Description of riveting: Circ. seams long. seams
 meter of rivet holes in long. seams Rivet Diameter of tube holes in drum 38.7 ± 0.1 mm Pitch of tube holes 130mm
 percentage strength of long. joint: Plate Rivet 53% 35.3% Water Drum Heads or Ends: Range of tensile strength 305 x 405mm
 percentage strength of drum shell in way of tubes 16mm 15mm Radius or how stayed 600mm & 125mm Size of manhole or handhole 36.5 kg/cm²
 thickness of plates 16mm 15mm Thickness of plates Tube 30mm Range of tensile strength 47.3-47.5 kg/mm²
 eaders or Sections: Number 3 Material O.H. Steel Thickness 20mm Tested by hydraulic pressure to 36.5 kg/cm²
 tubes: Diameter 60.3mm Thickness 3.2mm Number 603 x 2 = 1206 Steam Dome or Collector: Description of
 nt to shell Down Comer 76.2mm Inside diameter Thickness of shell plates 8 x 2 = 16 Range of tensile
 length Description of longitudinal joint If fusion welded, state name of welding
 m. Have all the requirements for the Rules for Class I vessels been complied with Diameter of rivet holes
 tch of rivets Thickness of straps Percentage strength of long. joint plate rivet
 crown or End Plates: Range of tensile strength Thickness Inside diameter
 UPPERHEATER, Drums or Headers: Number in each boiler Are drum shell plates welded
 thickness Material Range of tensile strength Have all the requirements of the Rules
 flanged If fusion welded, state name of welding firm long. seams
 r Class I vessels been complied with Description of riveting: Circ. seams long. seams
 diameter of rivet holes in long. seams Pitch of rivets Thickness of straps Percentage strength of
 ng. 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
 adius or how stayed Size of manhole or handhole Number, diameter, and thickness of tubes
 2. 20- tested by hydraulic pressure to Date of test Is a safety valve fitted to each section of the superheater which
 1-59 n be shut off from the boiler No. and description of safety valves Area of each set
 valves Pressure to which they are adjusted Is easing gear fitted
 pare Gear. Has the spare gear required by the Rules been supplied Yes

The foregoing is a correct description,

H. Asamura Manufacturer.

Dates During progress of 1958: Dec. 26, 1959: Jan. 7, 12, 21, 24, 26, 27, 28, 30, Feb. 3, 4, 9, 11, 13, 15, 16, 18, 20, 30, Apr. 1, 2, 3, 5, 6, 13, 15, 17, 22, 30, May 4, 6, 8, 11, 13, Jun. 1, 3, 5, 9, 1959: Sept. 4, 23, 25, 28, Oct. 1
 Survey work in shops - Is the approved plan of boiler forwarded herewith No
 while During erection on board vessel - Total No. of visits 49

Is 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, etc.) These Auxiliary Boilers have been constructed under the supervision of the Society's Surveyors in accordance with the Rules, approved plans and Secretary's letters. The Quality of materials and workmanship have been found satisfactory. The Auxiliary Boilers have been satisfactorily installed in the vessel and examined under steam and the safety valves adjusted as stated, and the pressure relief valve on the exhaust gas economiser adjusted to 27.5 kg. per sq.cm. It is submitted that these Auxiliary Boilers are eligible to be classed with the notation of S 9, 59.

Survey Fee ... £ 256 4 50 : : YOKOHAMA DEC. 7 1959
 Travelling Expenses (if any) £ : : When received 19

Engineer Surveyor to Lloyd's Register of Shipping.

FRIDAY 29 JAN 1960

Date See Rpt. 1
 Committee's Minute

Lloyd's Register
 012535 - 012590 - 0112