

REPORT ON WATER TUBE BOILERS.

No. 3253

DEC. 29, 1955

Received at London Office

11 JAN 1956

Date of writing Report 19 When handed in at Local Office 19 Port of Kobe
 No. in Survey held at Aioi Japan. Date, First Survey 8th Mach, 1955. Last Survey 20th Oct., 19 55.
 Reg. Book. Steel Single Screw S/S "JINGU MARU" (Number of Visits 57) Gross 13249.2
 on the Harima Shipbuilding & Engineering Tons Net 8818.64
 built at Aioi Japan By whom built Co., Ltd. Yard No. 495 When built Oct. 1955
 engines made at Tokyo By whom made Ishikawajima Heavy Industries Engine No. IT When made Oct. 1955
 boilers made at Aioi By whom made Harima Shipbuilding & Engineering Boiler No. 781 When made Oct., 1955
 nominal Horse Power Owners Daikyo Sekiyu K.K. Port belonging to YOKKAICHI

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Plate YAWATA
 Boiler Tube SUMITOMO KOUKAN

Date of Approval of plan 5-3-55, 17-3-55, 4-4-55, 23x25-4-55, No. and Description or Type 9-8-55
 of Boilers tube boiler Working Pressure 33 kg/cm² Tested by Hydraulic Pressure to 53 kg/cm² Date of Test 25-7-55

No. of Certificate No. B643,644 Can each boiler be worked separately Yes Total Heating Surface of Boilers 2x7527 ft² (699,3m²) X 2
 forced draught fitted Yes, Area of Fire Grate (coal) in each Boiler 150540

No. and type of burners (oil) in each boiler 4 x Harima Type No. and description of safety valves on

each boiler 2 x High Lift Type Area of each set of valves per boiler per rule 2.7 sq" Pressure to which they

are adjusted 33 kg/cm² Are they fitted with easing gear Yes. In case of donkey boilers state whether steam from main boilers can enter

the donkey boiler 800 mm. Height of boiler 5,900 mm.

Width and length 5,100mm x 5,000mm. Steam Drums: Number in each boiler One (1) Inside diameter Tube Plate 27.0" (685mm)

Thickness of plates Shell P. 30mm Tube P. 60mm. Range of tensile strength 53.8-48.2 kg/mm² Are drum shell plates welded

or flanged Welded If fusion welded, state name of welding firm Harima Shipbuilding & Eng. Co., Ltd. Have all the requirements of the Rules

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

Diameter 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 38.6 51.4 102.2 Pitch of tube holes 68mm 90mm

Percentage strength of shell in way of tubes 38-43.25% 50.8-42.9% Steam Drum Heads or Ends: Range of tensile strength 44.7-43.5 kg/mm²

Thickness of plates Back-45mm Front 48mm Radius or how stayed 1,150mm Size of manhole or handhole 305 x 405 mm Water Drums:—Number

in each boiler Two (2) Inside diameter Small 600mm Large 900mm Thickness of plates S. 30mm L. 20mm Range of tensile strength 54.8-48.5 kg/mm² Are drum shell plates

welded or flanged Welded If fusion welded, state name of welding firm Harima Shipbuilding & Eng. Co., Ltd. Have all the requirements of the Rules

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

Diameter 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 38.6 51.4 102.2 Pitch of tube holes 68mm 90mm

Percentage strength of drum shell in way of tubes 38-43.25% 50.8-42.9% Water Drum Heads or Ends: Range of tensile strength 46.8-45.4 kg/mm²

Thickness of plates S. 35mm L. 20mm Radius or how stayed S. 500mm Size of manhole or handhole 305 x 405mm. Tested by hydraulic pressure to 53 kg/cm²

Headers of Sections:—Number 2 Material Forged carbon steel. Thickness 20mm

Tubes:—Diameter 50.8mm (Outside) Thickness 5.0mm Number 20 Steam Dome or Collector:—Description of

joint to shell Inside diameter Thickness of shell plates Range of tensile

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

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

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

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

SUPERHEATER, DRUMS or Headers:—Number in each boiler Two (2) Inside diameter 152mm x 152mm Square

Thickness 20mm Material Cr-Mo Steel Range of tensile strength 51.3-49.3 kg/mm² Are drum shell plates welded

or flanged Seamless, 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:—Circ. seams long. seams

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

long. joint:—Plate Rivet Diameter of tube holes in header 32.4mm Pitch of tube holes 55mm

for tube plate per rules 10.15mm DRUM HEADS or Ends: Thickness 22mm Range of tensile strength 42kg/mm²

Radius or how stayed Flat Plate Size of manhole or handhole Number, diameter, and thickness of tubes 45.3x32mm (Outside) x 3.2mm

Tested by hydraulic pressure to 66 kg/cm² Date of test 6-8-55-No. 1 Is a safety valve fitted to each section of the superheater which

can be shut off from the boiler. No. No. and description of safety valves 1 x High Lift Type Area of each set

of valves 4.4 sq" Pressure to which they are adjusted 30 kg/cm² temp 400°C Is easing gear fitted Yes

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

THE HARIMA SHIPBUILDING AND ENGINEERING COMPANY, LTD. 5292 Aioi, Aioi-shi, Hyogo-ken, Japan.

1955 Dates During progress of April - May Jun. 4, 6, 7, 8, 9, 10, 11

of Survey work in shops - 4, 7, 9, 10, 12, 20, 25, 30 13, 14, 15, 16, 18, 22, 23, 24, 25, 26

while During erection on Sept. 6, Oct, 5, 6, 20 Total No. of visits 57.

building board vessel - - - 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, &c. The Main boilers of this vessel have been constructed under Special Survey in accordance with

the Rules, Approved plans and Secretary's letters.

The workmanship and materials are found sound and good. The main boilers have been examined

under steam. The safety valves adjusted as stated above and accumulation test carried out and found

Survey Fee ... £ 276, 000 When applied for 19

Travelling Expenses (if any) £ : : When received 19

Date Committee's Minute See Rpt. 40.

The foregoing is a correct description,

Manufacturer.

Director

Is the approved plan of boiler forwarded herewith. No.

54619, 011627, 0088