

REPORT ON WATER TUBE BOILERS.

No.

1693

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Date of writing Report 19 When handed in at Local Office 19 Port of KOBE, JAPAN
 No. in Survey held at KOBE Date, First Survey 8-10-1952 Last Survey 14-8-1953
 Reg. Book. S.T. "MEITAI MARU" (Number of Visits 46) Gross 12,932.28
 on the Tons Net 9,558.53
 Built at KOBE By whom built Kawasaki Dockyard Co., Ltd. Yard No. 923 When built 8-1953
 Engines made at KOBE By whom made Kawasaki Dockyard Co., Ltd. Engine No. T-333 When made 8-1953
 Boilers made at KOBE By whom made Kawasaki Dockyard Co., Ltd. Boiler No. 2165 When made 8-1953
 Nominal Horse Power 2 X 563.3/6 Owners Meiji Kaibun Co., Ltd. Port belonging to KOBE

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Yawata Works of Yawata Iron & Steel Co., Ltd. Steel Tube Works, Amagasaki.
 Date of Approval of plan July 8, 22, Sep. 15, Nov. 26, 1952. Apr. 18, June 10, July 9, 1953

No. and Description of Type of Boilers 2 x Two Drum D-Type Water Tube Boiler Working Pressure 32 kg/cm² Tested by Hydraulic Pressure to 51.5 kg/cm² Date of Test 22-5-53
 No. of Certificate B 455 Can each boiler be worked separately Yes Total Heating Surface of Boilers Superheater: 85.5 m² per boiler
 Is forced draught fitted Yes Area of Fire Grate (coal) in each Boiler Economizer: 57.5 m² per boiler

No. and type of burners (oil) in each boiler 4 x Todd "Hex press" Type No. and description of safety valves on each boiler as approved

Two (2) x Improved High Lift Type (265 mm) Area of each set of valves per boiler 66.36 cm² ✓ Pressure to which they are adjusted 32 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 - Smallest distance between boilers or uptakes and bunkers or woodwork 2,000 mm Height of boiler 6,850 mm

Width and length 5,800 mm x 4,600 mm Steam Drums: Number in each boiler One (1) ✓ Inside diameter 1,200 mm ✓
 Thickness of plates Shell plate 28 mm, Tube plate 60 mm Range of tensile strength 42.6 - 45.6 kg/mm² ✓ Are drum shell plates welded or flanged Welded ✓ If fusion welded, state name of welding firm Kawasaki Dockyard 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 51.4 mm ✓ Pitch of tube holes 50, 75, 105 mm ✓

Percentage strength of shell in way of tubes 35.5 Steam Drum Heads or Ends: Range of tensile strength 43.2 - 44.2 kg/mm² ✓
 Thickness of plates 42 mm ✓ Radius or how stayed 960 mm ✓ Size of manhole or handhole 305 x 405 mm ✓ Water Drums: Number in each boiler one (1) ✓ Inside diameter 760 mm ✓ Thickness of plates Tube P. 20 mm Range of tensile strength 42.6-47.0 kg/mm² ✓ Are drum shell plates welded or flanged Welded ✓ If fusion welded, state name of welding firm Kawasaki Dockyard 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 51.2 mm ✓ Pitch of tube holes 50, 105, 150 mm ✓

Percentage strength of drum shell in way of tubes 35.7 Water Drum Heads or Ends: Range of tensile strength 44.0 kg/mm² ✓
 Thickness of plates 28 mm ✓ Radius or how stayed 600 mm ✓ Size of manhole or handhole 305 x 405 mm ✓

Headers or Sections: Number 3 per boiler ✓ Material Forged steel Thickness 30 mm ✓ Tested by hydraulic pressure to 64 kg/cm²
 Tubes: Diameter 32 & 50.8 mm ✓ Thickness 3.5 & 4.5 mm Number 2,114+398 per ship 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 178 mm square ✓
 Thickness 30 mm ✓ Material Forged steel Range of tensile strength 52.8-55.3 kg/mm² ✓ Are drum shell plates welded or flanged Solid (End plates only welded) ✓ If fusion welded, state name of welding firm Kawasaki Dockyard Co., Ltd. ✓ 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 drum 32.4 mm ✓ Pitch of tube holes 92 mm ✓ Percentage strength of drum shell in way of tubes - Drum Heads or Ends: Boiler plate Thickness 40 mm ✓ Range of tensile strength 42.6-46.3 kg/mm² ✓

Radius or how stayed Plain & welded Size of manhole or handhole 100x119 mm ✓ Number, diameter, and thickness of tubes 42, 32 mm, 3.5 mm ✓
 Tested by hydraulic pressure to 64 kg/cm² Date of test 20-5-53, 27-5-53 Is a safety valve fitted to each section of the superheater which can be shut off from the boiler Yes ✓ No. and description of safety valves One (1) per boiler Improved High Lift Type (250 mm) Area of each set of valves 19.63 cm² ✓ Pressure to which they are adjusted 30 kg/cm² ✓ Is easing gear fitted Yes ✓

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

The foregoing is a correct description,

Takeo Morimoto Manufacturer.

standing Director of Kawasaki Dockyard, Kobe, Japan.

Dates of Survey During progress of work in shops - - - Oct. 8, 10, 13, 21, 27, 29, 31, 15, Nov. 10, 12, 24, 28, Dec. 3, 24, 1952. Jan. 28, Feb. 11, 16, 19, 25, 28, Mar. 2, 4, 1953
 while building During erection on board vessel - - - Mar. 6, 11, 20, 22, 27, Jan. 1, 5, 1953
 Is the approved plan of boiler forwarded herewith No
 Total No. of visits 47

Is this boiler a duplicate of a previous case. Yes If so, state vessel's name and report No. "ALLIANCE" & "SAKURA"

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 sound and good. The Main Boilers have been examined under steam.

The safety valves adjusted to 32 kg/cm² and accumulation test carried out and found satisfactory.

Survey Fee ... £ 252,000 When applied for 19
 Travelling Expenses (if any) £ : : When received 19

FRIDAY - 4 DEC 1953

Date
 Committee's Minute

Engineer Surveyor to Lloyd's Register of Shipping.

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