

REPORT ON WATER TUBE BOILERS.

No. 450

Received at London Office 13 SEP 1955

Date of writing Report 14th June 1955 When handed in at Local Office 19 Port of Shimomaseki

No. in Survey held at Nagasaki, Japan Date, First Survey 21st June, 1954 Last Survey 6th June 1955

Reg. Book. on the M.T. "KOCHU MARU" carrying vegetable oil in deep tanks in way of tunnel Tons { Gross 9197.25
Net 5372.24

built at Nagasaki, Japan By whom built Mitsubishi Zosen K.K. Yard No. 1445 When built 6 mo 1955

Engines made at Nagasaki, Japan By whom made Mitsubishi Zosen K.K. Engine No. 276 When made 3 mo 1955

Boilers made at Nagasaki, Japan By whom made Mitsubishi Zosen K.K. Boiler No. 1396 When made 2 mo 1955

nominal Horse Power - Owners Daido Kaisha K.K. Port belonging to Kobe

WATER TUBE BOILERS MAIN, AUXILIARY, OR DONKEY. Manufacturers of Steel Plates: Yawata Iron Steel Co. Ltd., Yawata, Japan; Kawasaki Steel Works, Kobe, Japan; Nippon Steel Works, Yawata, Japan; Kure Steel Works, Kure, Japan; etc.

Date of Approval of plan 22.6.54, 8.11.54, 19.3.55 (Kobe letter) No. and Description or Type of Boilers One Exhaust Gas heated 2 Drum Water Tube Boilers Working Pressure 7 kg/cm² Tested by Hydraulic Pressure to 14 kg/cm² Date of Test 26.2.55

No. of Certificate Nag. M-11262 Can each boiler be worked separately - Total Heating Surface of Boilers 100 M²

Is forced draught fitted - Area of Fire Grate (coal) in each Boiler -

No. and type of burners (oil) in each boiler - Main engine exhaust gas heated No. and description of safety valves on

each boiler One 40 mm dia. double spring improved high lift Area of each set of valves per boiler { per rule As approved
as fitted 2513 mm² Pressure to which they

are adjusted 7 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 - Height of boiler 4635 mm

Width and length 3600 x 1788 mm Steam Drums: Number in each boiler 1 Inside diameter 1500 mm

Thickness of plates Shell 12 mm Tube 25 mm Range of tensile strength 43.3 ~ 46.7 kg/mm² Are drum shell plates welded

or flanged Welded If fusion welded, state name of welding firm Nagasaki Wks., Mitsubishi Zosen K.K. 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 51.5 mm Pitch of tube holes 99 mm

Percentage strength of shell in way of tubes 48% Steam Drum Heads or Ends: Range of tensile strength 420 ~ 46.8 kg/mm²

Thickness of plates 16 mm Radius or how stayed 1240 mm Size of manhole or handhole 305 x 405 mm Water Drums: Number

in each boiler 1 Inside diameter 1000 mm Thickness of plates Shell 16 mm Tube 25 mm Range of tensile strength 46.1 ~ 46.8 kg/mm² Are drum shell plates

welded or flanged Welded If fusion welded, state name of welding firm Nagasaki Wks., Mitsubishi Zosen K.K. 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 51.5 mm Pitch of tube holes 99 mm

Percentage strength of drum shell in way of tubes 48% Water Drum Heads or Ends: Range of tensile strength 420 ~ 46.8 kg/mm²

Thickness of plates 16 mm Radius or how stayed 900 mm Size of manhole or handhole 305 x 405 mm

Headers or Sections: Number - Material - Thickness - Tested by hydraulic pressure to -

Tubes: Diameter 50.8 mm Thickness 3.5 mm Number 264 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 - Inside diameter -

Thickness - Material - Range of tensile strength - Are drum shell plates welded

or flanged - 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 drum - Pitch of tube holes - Percentage strength of

drum shell in way of tubes - Drum Heads or Ends: - Thickness - Range of tensile strength -

Radius or how stayed - Size of manhole or handhole - Number, diameter, and thickness of tubes -

Tested by hydraulic pressure to - Date of test - Is a safety valve fitted to each section of the superheater which

can be shut off from the boiler - No. and description of safety valves - Area of each set

of valves - Pressure to which they are adjusted - Is easing gear fitted -

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

The foregoing is a correct description,

NAGASAKI WORKS

MANUFACTURER. MITSUBISHI SHIPBUILDING & ENGINEERING CO., LTD.

Dates of Survey During progress of work in shops - 1954 June 21, 29, July 20, 24, 30, Aug. 5, 13, Sept. 8, 17, 21, 30, Is the approved plan of boiler forwarded herewith - No
while building During erection on board vessel - 1955 Jan. 11, Feb. 26, Oct. 13, 25, Dec. 22, 1955 May 17, 23, June 3, 6, Total No. of visits 20

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 Exhaust Gas heated Water Tube Donkey Boilers of this ship

has been made under special survey in accordance with the requirements of the Rules, the approved plans and the Secretary's letters.

The materials and workmanship are good. The donkey boiler was examined under steam during sea trials, safety valves were

adjusted to 7 kps per sq. cm. and accumulation test was carried out with satisfactory results.

Survey Fee ... £33,750 : When applied for 5. AUG 1955

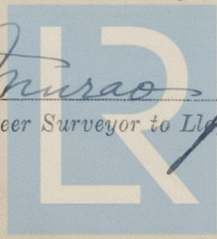
Travelling Expenses (if any) £ : : When received 19

FRIDAY 21 OCT 1955

Date

Committee's Minute See Rpt. 46.

Engineer Surveyor to Lloyd's Register of Shipping.



© 2021

Lloyd's Register Foundation

010791-010796-0064