

REPORT ON WATER TUBE BOILERS.

No. FE-3008

Received at London Office

5 DEC 1963

Date of writing Report 10th Sept. 1963 When handed in at Local Office. 19 Port of Hiroshima

No. in Survey held at Hiroshima Japan Date, First Survey 21st Nov. '62 Last Survey 4th Oct. 1963

Reg. Book. (Number of Visits 47) Gross 2237.110
on the Motor Tanker "LIKHOSLAVL" Tons Net 15746.77

Built at Hiroshima Japan By whom built Mitsubishi Shipbuilding & Engg. Co., Ltd. Yard No. 161 When built 1963. 10

Engines made at - do - By whom made - do - Engine No. 27 When made 1963. 7

Boilers made at - do - By whom made - do - Boiler No. 93 & 94 When made 1963. 6

HS for Register Book 2896 sq. ft. Owners V/O Sudoimport U.S.S.R. Port belonging to Odessa

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Plates; Fuji Iron & Steel Works, Hirohata Works
Tubes; Sumimoto Metal Ind. Steel Tube Works

Date of Approval of plan 17th September, 1962

of Boilers 2 Boilers, Double evaporation water/ Working Pressure 55kg/cm²g Tested by Hydraulic Pressure to 86kg/cm²g Date of Test 2nd, 7th May '63

No. of Certificate B-15115 /tube boiler Can each boiler be worked separately. Yes Total Heating Surface of Boilers 269.2m² Superheaters None

See M89326 Is forced draught fitted. Yes Area of Fire Grate (coal) in each Boiler -

No. and type of burners (oil) in each boiler 2 Sets Return type No. and description of safety valves on each boiler 2 Sets, High lift type Area of each set of valves per boiler } per rule 2623mm²
as fitted 3780mm² Pressure to which they are adjusted 55kg/cm²g Are they fitted with easing gear. Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler No Smallest distance between boilers or uptakes and bunkers or woodwork 860mm Height of boiler 4000mm each

Width and length 3800mm each Steam Drums:—Number in each boiler 1 Set Inside diameter 700mm

Thickness of plates 62mm, 23mm Range of tensile strength 44 - 50kg/cm² Are drum shell plates welded or flanged welded If fusion welded, state name of welding firm Mitsubishi S.B. & 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 26mm Pitch of tube holes 39mm

Percentage strength of shell in way of tubes 33.6% Steam Drum Heads or Ends:—Range of tensile strength 44 - 50kg/mm²

Thickness of plates 23mm, 29mm Radius or how stayed 567mm Size of manhole or handhole 305 x 405mm Water Drums:—Number in each boiler 1 Set Inside diameter 650mm Thickness of plates 58mm, 22mm Range of tensile strength 44-50kg/mm² Are drum shell plates welded or flanged welded If fusion welded, state name of welding firm Mitsubishi S.B. & 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 26mm Pitch of tube holes 39mm

Percentage strength of drum shell in way of tubes 33.6% Water Drum Heads or Ends:—Range of tensile strength 44-50kg/mm²

Thickness of plates 22mm, 27mm Radius or how stayed 450mm Size of manhole or handhole 305 x 405mm

Headers or Sections:—Number 1 Set Material Carbon steel Thickness 30mm Tested by hydraulic pressure to 86kg/cm²g

Tubes:—Diameter 25.4mm Thickness 2.6mm Number 1220

joint to shell 50.8mm Thickness 4.5mm Number 44 Steam Dome or Collector:—Description of strength - 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 - plate - rivet -

Pitch of rivets - Thickness of straps - Percentage strength of long. joint -

Crown or End Plates:—Range of tensile strength 45-55kg/mm² Thickness 40mm 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,

Y. Kaneda, General Manager Manufacturer.
Hiroshima Works, Mitsubishi Shipbuilding & Engineering Co., Ltd.

Dates of Survey During progress of 1962 Nov. 21 Dec. 4, 24, 25, 26 1963 Jan. 11, 18, 22, 24, 25, 31
work in shops - 1963 Feb. 2, 6, 7, 11, 12, 13, 18, 22, 23 Mar. 1, 2, 7, 8, 11, 13, 26, 27 April 10, 15, 17, 20 May 1, 2, 7, 8, 11, 13, 26, 27
while building During erection on board vessel - 1963 Aug. 13, 14, 25, 27, Sep. 5 Total No. of visits 47

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.) These boilers have been constructed and installed under special survey in accordance with the Rules, Approved plans and Secretary's letters. The material and workmanship are good. These boilers have been examined under steam, accumulation tests carried out and safety valves adjusted to 782 lb/m² and found satisfactory.

Survey Fee ... £ : : When applied for 19

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

FRIDAY 14 FEB 1964

Date

Committee's Minute See Rpt. 1

Engineer Surveyor to Lloyd's Register of Shipping.
K. Okada

Advice note attached

012734-012743-0316