

Rpt. 5c.

REPORT ON WATER TUBE BOILERS.

No. FE-11838

DEC 1963

Received at London Office

Date of writing Report 9th Nov., 1963 When handed in at Local Office NOV 27 1963 Port of KOBE

No. in Survey held at Aioi, Japan Date, First Survey 17th Nov., 1962 Last Survey 7th Sept., 1963

Reg. Book. m.s. "LOZOVAYA" (Number of Visits 51) Gross 23,138 Tons

Built at Aioi, Japan By whom built Ishikawajima-Harima Heavy Ind. Co., Ltd., Aioi Works Yard No. 615 When built 1963-9

Engines made at do. By whom made do. Engine No. 1D225 When made 1963-4

Boilers made at do. By whom made do. Boiler No. TB 805 806 When made 1963-3

HS for Register Book 2 x 307 M² Owners Vseso juzno je Exportno-Importno je Objedinenje "Sudoimport" Port belonging to Odessa

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Tubes—Nippon Kokan K.K. Kawasaki Iron Works

The Japan Steel Works Ltd., Muroran Plant

Date of Approval of plan 4-12-62 Design Pressure 17 kg/cm² No. and Description or Type of Boilers Two Drum 'D' Water Tube Working Pressure 16 kg/cm² tested by Hydraulic Pressure to 29 kg/cm² Date of Test 4-3-63

No. of Certificate B3034 Can each boiler be worked separately Yes Total Heating Surface of Boilers 2x307M² Superheaters None

Half Economisers None Is forced draught fitted Yes Area of Fire Grate (coal) in each Boiler -

No. and type of burners (oil) in each boiler 3x Ishikawajima-Harima P-All Pressure Type Heavy Oil Burner and description of safety valves on each boiler 2 x 90A High life Single Type Area of each set of valves per boiler per rule As approved Pressure to which they are adjusted 16 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 - Clear of Bunkers and woodwork Height of boiler 5625 mms

Width and length 4933.7mm x 4110mm Steam Drums:—Number in each boiler 1 Inside diameter 1290mm

Thickness of plates Wrapper 16mm, Tube 36mm Range of tensile strength 44 to 50 kg/mm² Are drum shell plates welded or flanged Welded If fusion welded, state name of welding firm Ishikawajima-Harima Heavy Industries Co., Ltd., Aioi Works 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, 51, 5, 76.9 Pitch of tube holes P.60mm Pd=64.7

Percentage strength of shell in way of tube 35.15% & 42% Steam Drum Heads or Ends:—Range of tensile strength 41 to 47 kg/mm² Water Drums:—Number in each boiler 1 Inside diameter 809.5mms Thickness of plate Wrapper 16mms, Tube 25mms Range of tensile strength 44 to 50 kg/mm² Are drum shell plates welded or flanged Welded If fusion welded, state name of welding firm Ishikawajima-Harima Heavy Ind. Co., Ltd., Aioi Works 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, 8, 51, 5, 76.9 Pitch of tube holes SP-115 Pd=81.6

Percentage strength of drum shell in way of tubes 35.15% & 41.2% Water Drum Heads or Ends:—Range of tensile strength 41 to 47 kg/mm² Pc=126.2

Thickness of plates 19 mms Radius or how stayed Radius Size of manhole or handhole 106mm x 305mm

Headers or Sections:—Number 3 off Material Steel Forging Thickness 25 mm Tested by hydraulic pressure to 29 kg/cm²

Tubes:—Diameter 38, 1, 50, 8, 76.3 Thickness 2.9, 3, 5 & 4mm Number 664, 86 & 10 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

Ishikawajima-Harima Heavy Industries Co., Ltd. Aioi No.2 Works.

The foregoing is a correct description,

Manager of Inspection Department

E. Murakoshi Manufacturer.

Dates of Survey During progress of Nov. 17, 1962 to March 25th, 1963 - 40 visits Is the approved plan of boiler forwarded herewith No

while building During erection on board vessel - 1963 Apr. 12, May 23, 27, June 5, 6, Aug. 6, 13, 17, 23, Sept. 2 & 7 Total No. of visits 51

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. m.s. "LJUBOTIN" FE Rpt. No. 10628

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

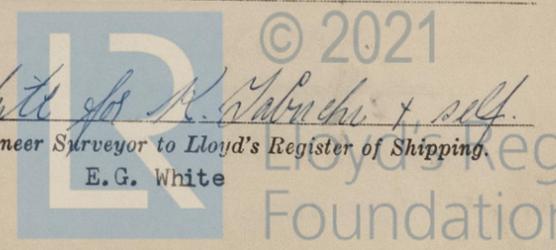
The auxiliary boilers have been constructed and installed under special survey in accordance with the Rules, approved plans and the Secretary's letters. The materials and workmanship were good. The boilers were tested to 29 kg/cm² and the safety valves adjusted under steam. Accumulation tests were also carried out in accordance with the Rules and with satisfactory results.

Survey Fee ... £ 235, 20.00 When applied for 19

Travelling Expenses (if any) £ - When received 19

Date FRIDAY 24 JAN 1964

Committee's Minute Subpt 1



If not stated whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?

72001818-012326-0072

List of Materials (Copies of Mill Sheets attached)

Location	Charge No. & Plate No.	Quantity	Maker
Steam Drums Wrapper Plate	37E1957 1/1 9-10	2	The Japan Steel Works, Ltd Muroran Plant.
Tube Plate	37K588 2/11 3-4	2	do.
End Plate	37K530 2/2 2 5-6	2	do.
" "	" " " 7-8	2	do.
Water Drums Wrapper Plate	37E1957 1/1 7-8	2	do.
Tube Plate	37K588 2/11 1-2	2	do.
End Plate	37K530 2/2 2 1-2	2	do.
" "	" " " 3-4	2	do.
Headers	4553, 33	3	Kawasaki Iron Works, Nippon Kokan K.K.
Tubes	Size in millimetres		
	38.1 x 2.9	5537	do.
	50.8 x 3.5	5537, 4215, 5212, 4009	do.
	76.3 x 4.5	1273	do.

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