

# REPORT ON WATER TUBE BOILERS.

No. 682  
19 MAY 1954

Received at London Office

Reporting Report 19 When handed in at Local Office 19 Port of Kobe, Japan.  
 Survey held at Kobe Date, First Survey 30-4-51 Last Survey 6-12-51  
 (Number of Visits 42) Gross 6209.88  
 on the Steel Single Screw Steam Ship "NIPPOH MARU" Tons Net 3614.10  
 Kobe By whom built Kawasaki Dockyard Co., Ltd. Yard No. 913 When built Dec. 1951  
 Kobe By whom made Kawasaki Dockyard Co., Ltd. Engine No. T-314 When made Dec. 1951  
 Kobe By whom made Kawasaki Dockyard Co., Ltd. Boiler No. 2154 When made Dec. 1951  
 Horse Power 412,171 x 2 Owners Nippon Kaiun Co., Ltd. Port belonging to Kobe

**WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.**—Manufacturers of Steel Plates:—Yawata Iron & Steel Co., Ltd.  
 Tubes:—Shin Fuso Metal Industries, Ltd. Amagasaki & Wakayama

Approval of plan 17-7-51, 19-7-51, 22-7-51. No. and Description or Type 19-9-51  
 2 x Two Drums D-Type Water Tube Boiler Working Pressure 32.2 kg/cm<sup>2</sup> Tested by Hydraulic Pressure to 51.5 kg/cm<sup>2</sup> Date of Test 3-10-51

Certificate B293, B294 Can each boiler be worked separately Yes. Total Heating Surface of Boilers 132.2 sq.m. per boiler  
 (TOTAL ECONOMIZER SURFACE) 54.6 M<sup>2</sup> PER BOILER

Is draught fitted Yes. Area of Fire Grate (coal) in each Boiler - No. and description of safety valves on boiler

2 x Ordinary Type Area of each set of valves per boiler { per rule 59.6 sq.cm Pressure to which they are fitted 100.28 sq.cm

Manufactured 32.9 Kg/cm<sup>2</sup> Are they fitted with easing gear Yes. In case of donkey boilers state whether steam from main boilers can enter

10. 2 key boiler - Smallest distance between boilers or uptakes and bunkers or woodwork 520 mm Height of boiler 5,553 mm

and length 4,142 x 4,560 mm Steam Drums:—Number in each boiler 1 Inside diameter 1,200 mm

ess of plates Shell plate 27mm, Tube plate 56mm Range of tensile strength 28.2 - 30.0 Ton/sq.in Are drum shell plates welded

Welded If fusion welded, state name of welding firm Kawasaki Dockyard Co., Ltd. Have all the requirements of the Rules

1-51 ss I vessels been complied with Yes. Description of riveting:—Circ. seams - long. seams -

er of rivet holes in long. seams - Pitch of rivets - Thickness of straps - Percentage strength of joint:—Plate - Rivet - Diameter of tube holes in drum 38.6 mm, 51.4 mm Pitch of tube holes 65.7, 85.7, 150 mm

1-51 tage strength of shell in way of tubes - Steam Drum Heads or Ends:—Range of tensile strength 28.9 - 29.9 Ton/sq.in

7-11 ss of plates Front 42 mm Radius or how stayed 960 mm Size of manhole or handhole 305 x 405 mm Water Drums:—Number

6-12 boiler 1 Inside diameter 1,000 mm Thickness of plates Shell p. 25mm Range of tensile strength 28.8-30.0 Are drum shell plates

or flanged Welded If fusion welded, state name of welding firm Kawasaki Dockyard Co., Ltd. Have all the requirements of the Rules

173-A ss I vessels been complied with Yes. Description of riveting:—Circ. seams - long. seams -

er of rivet holes in long. seams - Pitch of rivets - Thickness of straps -

06-B tage strength of long. joint:—Plate - Rivet - Diameter of tube holes in drum 38.4 mm, 51.4 mm Pitch of tube holes 65-85, 150 mm

06-A tage strength of drum shell in way of tubes - Water Drum Heads or Ends:—Range of tensile strength 28.7 - 29.4 Ton/sq.in

ess of plates Front 38mm, Back 36mm Radius or how stayed 850 mm Size of manhole or handhole 305 x 405 mm

rs or Sections:—Number 3 Material Cast Steel Thickness 30 mm Tested by hydraulic pressure to 64 Kg/sq.cm

16 Diameter 38mm, 50.8mm, Thickness 3.5mm, 4.5mm, 6.5mm Number (605 + 166 + 3) x 2 Steam Dome or Collector:—Description of

o shell - Inside diameter - Thickness of shell plates - Range of tensile

th - Description of longitudinal joint - If fusion welded, state name of welding

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

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

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

REHEATER, Drums or Headers:—Number in each boiler 2 Inside diameter 170 x 180 mm

ess 25 mm Material Boiler Steel Range of tensile strength 29.5-29.8 Ton/sq.in Are drum shell plates welded

ged Welded If fusion welded, state name of welding firm Kawasaki Dockyard Co., Ltd. Have all the requirements of the Rules

ss I vessels been complied with Yes. Description of riveting:—Circ. seams - long. seams -

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

oint:—Plate - Rivet - Diameter of tube holes in drum 32.4 mm Pitch of tube holes 90.0 mm Percentage strength of

shell in way of tubes - Drum Heads or Ends:—Thickness 36 mm Range of tensile strength 28.7 Ton/sq.in

or how stayed Plain Fusion Weld Size of manhole or handhole 100x119 mm Number, diameter, and thickness of tubes 55 x 32 mm x 3.5mm

by hydraulic pressure to 64 Kg/cm<sup>2</sup> Date of test 24-9-51, 8-10-51 Is a safety valve fitted to each section of the superheater which

shut off from the boiler Yes. No. and description of safety valves 1 x Ordinary type Area of each set

es 38.465 sq.cm Pressure to which they are adjusted 31.0 Kg/sq.cm Is easing gear fitted Yes.

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

The foregoing is a correct description,  
*Takeo Morimoto* Manufacturer.

During progress of work in shops Apr. 30, May 4, 25, 28, Jan. 15, 18, 20, 25, 29, Jul. 4, 6, 9, 10, 12, 13, 16, 17, 20, 23, 26, 30, Aug. 3, 7, 13, 17, 20, 24, 30, Sept. 3, 7, 10, 14, 19, 20, 21, 24, Oct. 3, 8, 17, - 1951  
 During erection on board vessel Nov. 28, 1951, Dec. 1 & 6, 1951 Total No. of visits 42

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. Workmanship and materials are sound and good. The Main Boilers have been examined under special survey, the safety valves adjusted to 32.9 Kg/cm<sup>2</sup> and found satisfactory.

Survey Fee ... £ See: When applied for 19  
 Travelling Expenses (if any) £ Machinery Rpt. When received 19

Date See F.E. mch. rpt.  
 Committee's report

*S. Burns & K. Takahashi*  
 Engineer Surveyor to Lloyd's Register of Shipping.



010300-010308-0134