

REPORT ON WATER TUBE BOILERS.

No. 89A

Received at London Office

Kobe

Writing Report 2-2-1950 When handed in at Local Office 19 Port of Nagasaki, Japan
 in Survey held at Nagasaki, Japan Date, First Survey 6th April Last Survey 15th Nov 1949
 Book. (Number of Visits 15) Gross 4900
 on the SS "HAKUBASAN MARU" Tons Net 2750
 at Nagasaki By whom built Nagasaki Shipyard & Engine Works Yard No. 1413 When built Nov. 1949
 es made at Nagasaki By whom made Nagasaki Shipyard & Engine Works Engine No. 569 When made Aug. 1949
 rs made at Nagasaki By whom made Nagasaki Shipyard & Engine Works Boiler No. MN1339 When made 17-8-1949
 t Horse Power M. N. 559 Owners MITSUBISHI SEMPAKU Co. Ltd. Port belonging to Tokyo 24-8-1949

TER TUBE BOILERS MAIN, AUXILIARY, OR DONKEY. Manufacturers of Steel Yawata Steel Wks.
 of Approval of plan Boiler proper on 1st Jan. '49. Superheater & Desuperheater on 10th May, '49 No. and Description or Type
 ilers 3 sets of 3 drum type water tube boiler Working Pressure 20 kg/cm² Tested by Hydraulic Pressure to 33.5 kg/cm² Date of Test 17.19.24 Aug '49
 of Certificate B100, 101 & 102 Can each boiler be worked separately yes Total Heating Surface of Boilers 230 m² of each boiler
 reed draught fitted yes Area of Fire Grate (coal) in each Boiler 5.7 m² plus 55 m² - 55 m²
 nd type of burners (oil) in each boiler 2 sets of Harima Pressure type oil burner No. and description of safety valves on
 boiler 2, 65 mm "Improved" High Lift Type Area of each set of valves per boiler 5.16 m² (33.03 cm²) Pressure to which they
 adjusted 20.6 kg/cm² Are they fitted with easing gear yes In case of donkey boilers state whether steam from main boilers can enter
 donkey boiler yes Smallest distance between boilers or uptakes and bunkers or woodwork 240 mm Height of boiler ab. 5,700 mm
 th and length ab. 5150 x 3900 mm Steam Drums: Number in each boiler one Inside diameter 1300 mm
 kness of plates 20 mm Range of tensile strength 51.0 ~ 54.8 kg/mm² Are drum shell plates welded
 nged flanged If fusion welded, state name of welding firm DR Have all the requirements of the Rules
 lass I vessels been complied with yes Description of riveting: Circ. seams Lap joint long. seams double butt strap
 eter of rivet holes in long. seams 23 mm Pitch of rivets 89 mm Thickness of straps 15 mm / 16 mm Percentage strength of
 joint: Plate 74.2 Rivet 70.6 Diameter of tube holes in drum 45.6 mm Pitch of tube holes 79 mm
 centage strength of shell in way of tubes 0.425 Steam Drum Heads or Ends: Range of tensile strength 43.0 ~ 46.9 kg/cm²
 kness of plates 32 mm / 30 mm Radius or how stayed 11.00 mm Size of manhole or handhole 305 x 405 mm Water Drums: Number
 ach boiler 2 Inside diameter 1000 / 2600 mm Thickness of plates 15.5 mm / 14 mm Range of tensile strength 46.6 ~ 54.3 kg/mm² Are drum shell plates
 led or flanged flanged If fusion welded, state name of welding firm DR Have all the requirements of the Rules
 lass I vessels been complied with yes Description of riveting: Circ. seams Lap joint long. seams double butt strap
 eter of rivet holes in long. seams 23 mm Pitch of rivets 89 mm Thickness of straps 14 mm / 12 mm & 12 mm / 12 mm
 centage strength of long. joint: Plate 74.2, 74.2 Rivet 90.7, 100.4 Diameter of tube holes in drum 45.4 mm Pitch of tube holes 79 mm
 centage strength of drum shell in way of tubes 0.425 Water Drum Heads or Ends: Range of tensile strength 44.8 ~ 46.8 kg/mm²
 kness of plates 22, 25 mm & 15 mm, 18 mm Radius or how stayed 800 mm & 540 mm Size of manhole or handhole (305 x 405) (280 x 380) mm
 aders or Sections: Number 583 Material cast steel Thickness 4.5 mm / 5.5 mm Tested by hydraulic pressure to 33.5 kg/cm²
 es: Diameter 45 mm outside Thickness 4.5 mm / 5.5 mm Number 583 per in each boiler Steam Dome or Collector: Description of
 t to shell yes Inside diameter 140 x 145 mm Thickness of shell plates rectangle Range of tensile
 ngth 45.7 ~ 53.9 kg/mm² If fusion welded, state name of welding
 Have all the requirements for the Rules for Class I vessels been complied with yes Diameter of rivet holes
 ch of rivets 23 mm Thickness of straps 15 mm Percentage strength of long. joint plate rivet
 own or End Plates: Range of tensile strength 45.7 ~ 53.9 kg/mm² Thickness 30 mm Radius or how stayed
 PERHEATER, Drums or Headers: Number in each boiler 2 Inside diameter (140 x 145) mm rectangle
 kness 30 mm Material cast steel Range of tensile strength 45.7 ~ 53.9 kg/mm² Are drum shell plates welded
 flanged no If fusion welded, state name of welding firm DR Have all the requirements of the Rules
 lass I vessels been complied with yes Description of riveting: Circ. seams Lap joint long. seams double butt strap
 eter of rivet holes in long. seams 23 mm Pitch of rivets 89 mm Thickness of straps 15 mm Percentage strength of
 g. joint: Plate 74.2 Rivet 90.7 Diameter of tube holes in drum 45.4 mm Pitch of tube holes 79 mm Percentage strength of
 um shell in way of tubes 0.425 Drum Heads or Ends: F, S Thickness 30 mm Range of tensile strength 45 ~ 48.5 kg/mm²
 dius or how stayed bolted flat plate Size of manhole or handhole (90 x 115) mm Number, diameter, and thickness of tubes 34, 29 outside / 29 mm
 sted by hydraulic pressure to 60 kg/cm² Date of test No. 1 No. 3 on 6th Oct '49 Is a safety valve fitted to each section of the superheater which
 be shut off from the boiler yes No. and description of safety valves One 50 mm ordinary direct spring loaded type Area of each set
 valves 3.04 m² (19.63 cm²) Pressure to which they are adjusted 19.8 kg/cm² Is easing gear fitted yes
 are Gear. Has the spare gear required by the Rules been supplied yes

The foregoing is a correct description,

Y. Kozuka

Manufacturer.

Dates During progress of 1949 April 6 June 13 July 25
 Survey work in shops - - -
 while During erection on Oct 6, 7, 13, 27, 28 Nov 5
 building board vessel - - -

Is the approved plan of boiler forwarded herewith yesTotal No. of visits 15this boiler a duplicate of a previous case no If so, state vessel's name and report No. no

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The water tube boilers of this vessel
have been constructed under Special Survey in accordance with the Rules, approved plans &
Secretary's letters. They have been examined under steam, their safety valves adjusted to
20.6 kg/cm² & found good.

Survey Fee ... £ 2500 When applied for 19
 Travelling Expenses (if any) £ 0 When received 19

FRI. 14 APR 1950

Date 14 April 1950
 Committee's Minute Su F.E. mch. rpt.

L. T. Williams & Co. Kanakawa
 Engineer Surveyor to Lloyd's Register of Shipping.

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