

## REPORT ON WATER TUBE BOILERS.

No. 804

11. JUL 1952

Received at London Office

15 AUG 1952

Date of writing Report 19. When handed in at Local Office 19. Port of Yokohama Kobe  
 No. in Survey held at Yokosuka, Nagoya Japan Date, First Survey 30th March 1951 Last Survey Dec. 7, 1951  
 Reg. Bk. on the STEEL SINGLE SCREW STEAMER "KOMEI MARU" (Number of Visits 45)  
 Gross 6288.83 Tons  
 Net 3731.84 Tons  
 Built at Nagoya, Japan By whom built Nagoya Shipbuilding Co., Ltd. When built 12-1951  
 Engines made at Yokosuka Japan By whom made Uraga Dock Co., Ltd. When made 7-1951  
 Boilers made at Yokosuka Japan By whom made Uraga Dock Co., Ltd. When made 10-1951  
 Nominal Horse Power 345.854 x 2 Owners Nihon Shosen Co. Ltd. Port belonging to TOKYO

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Yawata Iron & Steel worksDate of Approval of plan 24-5-51of Boilers 2, three drums single flow type Working Pressure 25 kg/cm<sup>2</sup> Tested by Hydraulic Pressure to 41 kg/cm<sup>2</sup> Number and Description or Type 24-9-51No. of Certificate Y2312 and Y2313 Can each boiler be worked separately Yes Total Heating Surface of Boilers 385.5 m<sup>2</sup> x 2 Date of Test 1-10-51Is forced draught fitted Yes Area of fire grate (coal) in each Boiler —No. and type of burners (oil) in each boiler 3 oil pressure typeNo. and description of safety valves on each boiler 1, 60x60 mm high lift type duplex spring loaded Area of each set of valves per boiler {per rule 44.6 cm<sup>2</sup> as fitted 56.5 cm<sup>2</sup> Pressure to which theyare adjusted 25.7 kg/cm<sup>2</sup> Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enterthe donkey boiler No Smallest distance between boilers or uptakes and bunkers or woodwork 1250 mm Height of boiler 3220 mmWidth and Length 4041 mm Steam Drums:—Number in each boiler 1 Inside diameter 1350 mmThickness of plates Shell plate 24 mm, tube plate 5B mm Range of Tensile Strength 28.45~29.25 % Are drum shell plates weldedor flanged Seamless If fusion welded, state name of welding firm — Have all the requirements of the rulesfor Class I vessels been complied with — Description of riveting:—Cir. seams 2 rows zigzag lap long. seams —Diameter of rivet holes in long. seams — Pitch of rivets 90 mm Thickness of straps — Percentage strength oflong. joint:—Plate — Rivet — Diameter of tube holes in drum 45.6, 60.6 mm Pitch of tube holes 75, 105 mmPercentage strength of shell in way of tubes 39.1 and 42.3 % Steam Drum Heads or Ends:—Range of tensile strength 29.5~29.9 %Thickness of plates 42, 45 mm Radius or how stayed Radius 1343 mm Size of manhole or handhole 305 x 405 mm Water Drums:—Numbereach boiler 2 Inside Diameter 1000 mm Thickness of plates 20 mm Range of tensile strength 29.51~32.7 % Are drum shell plateswelded or flanged Solid forged If fusion welded, state name of welding firm — Have all the requirements of the rulesfor Class I vessels been complied with — Description of riveting:—Cir. seams 2 rows zigzag lap long. seam 2 rows zigzagDiameter of rivet holes in long. seams 26.5 mm Pitch of rivets 91.51 mm Thickness of straps 16 mmPercentage strength of long. joint:—Plate 72 % Rivet 83 % Diameter of tube holes in drum 45.6, 60.6 mm Pitch of tube holes 75, 105 mmPercentage strength of drum shell in way of tubes 39.1 % , 42.3 % Water Drum Heads or Ends:—Range of Tensile strength 29.2~29.9 %Thickness of plates 32, 35, 19, 22 mm Radius or how stayed Radius 793, 600 mm Size of manhole or handhole 305 x 405 mmHeads or Sections:—Number — Material — Thickness — Tested by Hydraulic Pressure to —Tubes:—Diameter 60, 45 mm Thickness 5.5, 4.5 mm Number 60<sup>9</sup>, 165, 45<sup>9</sup>, 385 Steam Dome or Collector:—Description ofjoint to Shell — Inside diameter — Thickness of shell plates — Range of tensilestrength — Description of longitudinal joint — If fusion welded, state name of weldingfirm — Have all the requirements of 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 1 Inside Diameter 450 mmThickness Shell plate 15 mm, Tube plate 2B mm Material O. H. steel Range of tensile strength 32.4~33.1 % Are drum shell plates weldedor flanged Flanged If fusion welded, state name of welding firm — Have all the requirements of the rulesfor Class I vessels been complied with — Description of riveting:—Cir. seams — long. seams 1 row double butt strapDiameter of rivet holes in long. seams 17 mm Pitch of rivets 38.7 mm Thickness of straps 13 mm Percentage strength oflong. joint:—Plate 56.1 % Rivet 60.4 % Diameter of tube holes in drum 25.4 mm Pitch of tube holes 40 mm Percentage strength ofdrum shell in way of tubes 36.5 % Drum Heads or Ends:—Thickness 35 mm Range of tensile strength 27.25~30 %Radius or how stayed Radius 450 mm Size of manhole or handhole — Number, diameter, and thickness of tubes 156, 25<sup>9</sup>, 3.2 mmTested by Hydraulic Pressure to 50 kg/cm<sup>2</sup> Date of Test 12-10-51, 5-11-51 Is a safety valve fitted to each section of the superheater whichcan be shut off from the boiler Yes No. and description of Safety Valves 1- high lift type single spring loaded (50<sup>9</sup>) Area of each setvalves 19.6 cm<sup>2</sup> Pressure to which they are adjusted 24.7 kg/cm<sup>2</sup> Is easing gear fitted YesSpare Gear. Has the spare gear required by the rules been supplied Yes

The foregoing is a correct description,

G. Asakura

Manufacturer.

Dates } During progress of 1951: MAR. 30, APRIL 5, 9, 11, 14 MAY 18, 22, 31, JUNE 16, 23, 26  
 Survey } work in shops - - JULY 14, 23, 24, 31, AUG. 11, 21, 25, 27, 28, 31, SEP. 4, 12  
 while } During erection on 14, 19, 21, 24, 26, 28, OCT. 1, 2, 5, 8 TOTAL - 33 (YOKOHAMA)  
 building } board vessel - - 1951: SEP. 13, 24 OCT. 7, 16, 20, 25, 30 NOV. 5, 15, 21, DEC. 5, 7 Total No. of visits 12 (Kobe)

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 Boiler has been constructed under the supervisionthe Society's Surveyors in accordance with the Rules and Approved plans. The quality of workmanship and materials havebeen found satisfactory. This Boiler is intended for installation in ship No. 101 of the Nagoya Shipbuilding Co. Ltd. Nagoya.It is submitted that this Boiler is eligible to be classed with this Society with notation of MBS when satisfactorily

Survey Fee £ : : When applied for, 19

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

Committee's Minute

Signed See Rpt 4a

Engineer Surveyor to Lloyd's Register of Shipping.

© 2021

Lloyd's Register  
Foundation

010615 - 010623 - 0099



REPORT ON WATER TUBE BOILERS

Rpt. 5

installed in the vessel and adjusted the safety valves.

The boilers have now been installed on board and examined under steam and safety valves adjusted to 25 kg/cm<sup>2</sup> and found satisfactory

Date of w  
No. in  
Reg. Bo

Master  
Engines  
Boilers  
Nominal

MULTI

Manufac

Total E

No. and

Tested b

Area of

Area of

n case

Smallest

Smallest

Largest

Thickne

ong. sec

Percent

Percent

Thickne

Material

length

dimensi

nd pla

ow are

ube pl

ean pi

irders

centre

each...

nsile s

tch of

orking

icknes.

ch of

orking

meter

orking

meter



© 2021

Lloyd's Register  
Foundation