

REPORT ON MACHINERY.

Port of Nagasaki

Received at London Office 18

No. in Survey held at _____ Date, first Survey _____ Last Survey 18
 Reg. Book. _____ (Number of Visits _____)
 on the Steel Screw Steamer "Niigata Maru" Tons { Gross 2183
 Net 1353
 Master _____ Built at _____ By whom built Mitsui Bishi No 147 S/S When built _____
 Engines made at _____ By whom made _____ when made _____
 Boilers made at Nagasaki By whom made Mitsui Bishi Ship. & Eng. Wks when made 1903
 Registered Horse Power _____ Owners _____ Port belonging to _____
 Nom. Horse Power as per Section 28 _____ Is Electric Light fitted _____

ENGINES, &c.—Description of Engines No. of Cylinders No. of Cranks
 Diameter of Cylinders _____ Length of Stroke _____ Revolutions per minute _____ Diameter of Screw shaft _____
 Diameter of Tunnel shaft _____ Diameter of Crank shaft journals _____ Diameter of Crank pin _____ Size of Crank webs _____
 Diameter of screw _____ Pitch of screw _____ No. of blades _____ State whether moveable _____ Total surface _____
 No. of Feed pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
 No. of Bilge pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
 No. of Donkey Engines _____ Sizes of Pumps _____ No. and size of Suctions connected to both Bilge and Donkey pumps _____
 In Engine Room _____ In Holds, &c. _____

No. of bilge injections _____ sizes _____ Connected to condenser, or to circulating pump _____ Is a separate donkey suction fitted in Engine room & size _____
 Are all the bilge suction pipes fitted with roses _____ Are the roses in Engine room always accessible _____ Are the sluices on Engine room bulkheads always accessible _____
 Are all connections with the sea direct on the skin of the ship _____ Are they Valves or Cocks _____
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ Are the discharge pipes above or below the deep water line _____
 Are they each fitted with a discharge valve always accessible on the plating of the vessel _____ Are the blow off cocks fitted with a spigot and brass covering plate _____
 What pipes are carried through the bunkers _____ How are they protected _____
 Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times _____
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges _____
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock _____ Is the screw shaft tunnel watertight _____
 Is it fitted with a watertight door _____ worked from _____

BOILERS, &c.—(Letter for record _____) Total Heating Surface of Boilers 736.4 Is forced draft fitted ☒
 No. and Description of Boilers Single Ended Multitubular Working Pressure 120 lb Tested by hydraulic pressure to 240 lb
 Date of test 11/4/03 Can each boiler be worked separately ☒ Area of fire grate in each boiler 20.4 No. and Description of safety valves to _____
 each boiler Two Direct Spring Area of each valve 2" dia Pressure to which they are adjusted 125 lb Are they fitted _____
 with easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork butts at 18" Mean diameter of boilers 9' 0"
 Length 9' 2" Material of shell plates Steel Thickness 23/32 Description of riveting: circum. seams Doub. riv. long. seams Doub. Straps
 Diameter of rivet holes in long. seams 15/16 Pitch of rivets 5" x 2 1/2" Lap of plates or width of butt straps 10 1/2" x 1/16
 Per centages of strength of longitudinal joint _____ rivets 85.4 Working pressure of shell by rules 147 lb Size of manhole in shell 16 x 12
 plate 81.2 Size of compensating ring 34 x 32 x 3/8 No. and Description of Furnaces in each boiler Two Plain Material Steel Outside diameter 30 7/8
 Length of plain part 41 1/2 Thickness of plates 1/16 Description of longitudinal joint Welded No. of strengthening rings One
 Working pressure of furnace by the rules 145 Combustion chamber plates: Material Steel Thickness: Sides 1/2 Back 1/2 Top 1/2 Bottom 9/16
 Pitch of stays to ditto: Sides 7 1/2 x 8 1/4 Back 6 3/4 x 8 3/4 Top 8 1/2 x 7 1/2 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 139
 Material of stays Steel Diameter at smallest part 1 1/4" Area supported by each stay 59 Working pressure by rules 166 End plates in steam space: _____
 Material Steel Thickness 27/32 Pitch of stays 14 1/2 x 13 1/2 How are stays secured Doub. nut & washers Working pressure by rules 143 Material of stays Steel
 Diameter at smallest part 2" Area supported by each stay 174 Working pressure by rules 180 Material of Front plates at bottom Steel
 Thickness 1/16 Material of Lower back plate Steel Thickness 1/2" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 120 lb
 Diameter of tubes 3" Pitch of tubes 4 3/8 x 4 1/4 Material of tube plates Steel Thickness: Front 1/16 Back 5/8" Mean pitch of stays 8 7/8"
 Pitch across wide water spaces 13 1/2 Working pressures by rules 120 lb Girders to Chamber tops: Material Steel Depth and _____
 thickness of girder at centre 5 x 3/4 (2 pl) Length as per rule 23 Distance apart 7 1/2" Number and pitch of Stays in each Two at 8 1/4
 Working pressure by rules 143 Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked _____
 separately _____ Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet _____
 holes _____ Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____
 If stiffened with rings _____ Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____
 Working pressure of end plates _____ Area of safety valves to superheater _____ Are they fitted with easing gear _____

DONKEY BOILER— Description

Made at _____ By whom made _____ When made _____ Where fixed _____
Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____
No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can
enter the donkey boiler _____ Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
Description of riveting long seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of
joint _____ Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
Manufacturer.

Dates { During progress of
of Survey { work in shops - -
while { During erection on
building { board vessel - -
Total No. of visits

General Remarks (State quality of workmanship, opinions as to class, &c.

ENGINES—Length of stern bush _____ Diameter of crank shaft journals _____ as per rule _____ Diameter of thrust shaft under collars _____
as fitted _____

BOILERS—Range of tensile strength _____ Are they welded or flanged _____ DONKEY BOILERS—No. _____ Range of tensile strength _____

Is the approved plan of main boiler forwarded herewith _____ Is the approved plan of donkey boiler forwarded herewith _____

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee. . £ : : When applied for.
Special £ : :18.....
Donkey Boiler Fee . . . £ : : When received,
Travelling Expenses (if any) £ : :18.....

11.11.1903

Committee's Minute

Assigned

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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Foundation