

REPORT ON MACHINERY.

THU. 20 APR. 1916

No. 1758

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Date of writing Report 20th Feb. 1916 When handed in at Local Office 10 Port of Kobe
No. in Survey held at Inosshima & Kobe Date, First Survey 12th June 1915 Last Survey 9th May 1916
Reg. Book. on the Steel Single Screw Steamer "Yuki Maru" (Number of Volls)
Master T. Iki Built at Inosshima By whom built Osaka Iron Works, Inosshima, When built 1916-2
Engines made at Osaka By whom made The Osaka Iron Works & Co when made 1916-2
Boilers made at do By whom made do when made do
Registered Horse Power 288 Owners Satsumura Kisen Kaisha Port belonging to Naba
Nom. Horse Power as per Section 28 288 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three
Dia. of Cylinders 22 : 34 : 61 Length of Stroke 42 Revs. per minute 70 Dia. of Screw shaft as per rule 12.8 as fitted 13 Material of screw shaft Steel
Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight in the propeller boss Yes If the liner is in more than one length are the joints burned If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Atlas solid If two liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 4' 8 3/4
Dia. of Tunnel shaft as per rule 11.2 as fitted 11 3/8 Dia. of Crank shaft journals as per rule 11.77 as fitted 12 Dia. of Crank pin 12 Size of Crank webs 7 3/8, 7.33 Dia. of thrust shaft under collars 12 Dia. of screw 16.0 Pitch of Screw 16.0 No. of Blades 4 State whether moveable No Total surface 43 1/2
No. of Feed pumps Two Diameter of ditto 3 1/4 Stroke 24 Can one be overhauled while the other is at work Yes
No. of Bilge pumps Two Diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work Yes
No. of Donkey Engines Two Sizes of Pumps Ballast 7.85, 9 Duplex No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room Two 3" & in Boiler Rm Two 3" In Holds, &c. Two 3" in each hold After valve 3 1/2
Tunnel valve 3 1/2
No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump C.s.p. Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2
Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None
Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Larger valves: Smaller cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line Above
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes
What pipes are carried through the bunkers None How are they protected
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
Dates of examination of completion of fitting of Sea Connections 15.1.16 of Stern Tube 17.12.15 Screw shaft and Propeller 15.1.16
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper grating in E. Rm.

BOILERS, &c.—(Letter for record 5.) Manufacturers of Steel Parkhead & Leeds Forge
Total Heating Surface of Boilers 3824 Is Forced Draft fitted Yes No. and Description of Boilers Two Single Ended
Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 29 Oct 1915 No. of Certificate LLOYD'S TEST 360 LBS
Can each boiler be worked separately Yes Area of fire grate in each boiler 45 No. and Description of Safety Valves to each boiler Two Spring loaded Area of each valve 3 1/4 dia Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 10 Mean dia. of boilers 13.6 Length 11.6 Material of shell plates Steel
Thickness 1 3/32 Range of tensile strength 28 3/4 to 32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double long. seams Lrb. riv. Diameter of rivet holes in long. seams 1 3/16 Pitch of rivets 8 1/8 x 4 1/4 Top of plates or width of butt straps 7 3/4 x 1
Per centages of strength of longitudinal joint rivets 92.9 x 88.5 com plate 85.46 x 86.4 in strap Working pressure of shell by rules 184 lbs Size of manhole in shell 12 x 16 in End pl.
Size of compensating ring Flanged end pl. No. and Description of Furnaces in each boiler 3 Brighton Material Steel Outside diameter 40 1/4
Length of plain part top bottom Thickness of plates crown bottom 1/2 Description of longitudinal joint Weld No. of strengthening rings
Working pressure of furnace by the rules 184 lbs Combustion chamber plates: Material Steel Thickness: Sides 23/32 Back 23/32 Top 23/32 Bottom 7/8
Pitch of stays to ditto: Sides 9 x 10 Back 8 3/4 x 10 Top 9 x 10 1/2 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 184 lbs
Material of stays Steel Section Diameter at smallest part 2.1 Area supported by each stay 94 1/2 Working pressure by rules 200 lbs End plates in steam space
Material Steel Thickness 1 3/8 Pitch of stays 25 x 19 How are stays secured Bolt nuts Working pressure by rules 181 lbs Material of stays Steel
Diameter at smallest part 3 1/4 Area supported by each stay 25 x 19 Working pressure by rules 180 lbs Material of Front plates at bottom Steel
Thickness 1 Material of Lower back plate Steel Thickness 5/16 Greatest pitch of stays 14 1/2 Working pressure of plate by rules 180 lbs
Diameter of tubes 3 Pitch of tubes 4 3/8 x 4 1/4 Material of tube plates Steel Thickness: Front 1 Back 13/16 Mean pitch of stays 10 1/2
Pitch across wide water spaces 14 Working pressures by rules 180 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7 1/2 x 13 (two) Length as per rule 32 Distances apart 10 1/2 Number and pitch of stays in each 2 @ 9
Working pressure by rules 202 lbs 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

