

REPORT ON MACHINERY.

No. 2589

Received at London Office

Date of writing Report 21st Aug 1919 When handed in at Local Office

Port of Kobe

No. in Survey held at Kobe

Date, First Survey 29th JanLast Survey 1st Aug 1919

Reg. Book.

on the Steel Single Screw Steamer "PORTSAID MARU" (Number of Visits 48.) Tons { Gross 5860 Net 4260

Master K. MURAKAMI.

Built at Kobe

By whom built The Kawasaki Dockyard Co. Ltd. When built 1919

Engines made at Kobe

By whom made The Kawasaki Dockyard Co. Ltd. when made 1919

Boilers made at do

By whom made do when made 1919

Registered Horse Power

Owners The Kawasaki Kisen Kaisha Kaisha Port belonging to Kobe

Nom. Horse Power as per Section 28 440.457

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 26: 13 1/2: 7 1/2 Length of Stroke 18" Revs. per minute 70 Dia. of Screw shaft as per rule 15 1/4 as fitted 16" Material of steel screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no liner Is the after end of the liner made water tight

in the propeller boss ✓ 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 ✓ If two

liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 5' - 5 1/2"

Dia. of Tunnel shaft as per rule 13 1/4 as fitted 13 3/4 Dia. of Crank shaft journals as per rule 14 1/4 as fitted 14 3/8 Dia. of Crank pin 14 3/4 Size of Crank webs 90 1/2 x 20 1/2 Dia. of thrust shaft under +26 1/2 at pin + journal

collars 14 3/8 Dia. of screw 14' - 6" Pitch of Screw 19' - 0" mean No. of Blades 1 State whether moveable yes Total surface 100 sq. ft.

No. of Feed pumps One Diameter of ditto 5" Stroke 24" ✓ Can one be overhauled while the other is at work Yes (with Weir's feed) ✓

No. of Bilge pumps Two Diameter of ditto 5" Stroke 24" ✓ Can one be overhauled while the other is at work Yes ✓

No. of Donkey Engines Three Sizes of Pumps Bal. 10" x 11" x 12" dupl. Weir's feed 9 1/2 x 7 x 2 1/2 Inp. Gen. Serv. 1 1/2 x 5 x 6 dupl. No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Three 3 1/2 and One 3 1/2 to Tunnel Well In Holds, &c. Nos. 1, 3 + 1 Holds each two 3 1/2 No. 2 hold two 4" ✓

No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Cir. 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

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Upper platform of E. R.

BOILERS, &c.—(Letter for record 5.) Manufacturers of Steel Illinois Steel Co, Carnegie Steel Co and Amer. Spiral Pipe Works (Furnaces).

2252 x 2 + 1132 (Aux. Blw). Total Heating Surface of Boilers 5636 Is Forced Draft fitted Yes No. and Description of Boilers Two S. E. + Aux. S. E.

Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 7-6-19 11-6-19 No. of Certificate 7-6-19 11-6-19

Can each boiler be worked separately yes Area of fire grate in each boiler 60 1/2 sq. ft. No. and Description of Safety Valves to

each boiler Two Spring loaded Area of each valve 3 3/4 dia. Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 14' - 6" Length 12' - 0" Material of shell plates Steel

Thickness 1 3/8" Range of tensile strength 26,785 to 32,000 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams Ends double

long. seams Double riveted Diameter of rivet holes in long. seams 1 7/16 Pitch of rivets 9/8 + 1 9/16 Lap of plates or width of butt straps 20 1/8 + 1 3/8

Per centages of strength of longitudinal joint rivets 95.84 plate 81.28 Working pressure of shell by rules 200 lbs. Size of manhole in shell 16" x 12"

Size of compensating ring (1 1/2 + flange) 1 1/2 No. and Description of Furnaces in each boiler 3 Morrison Material Steel Outside diameter 18 1/4"

Length of plain part top ✓ Thickness of plates crown 21/32 Description of longitudinal joint Weld No. of strengthening rings

Working pressure of furnace by the rules 221 Combustion chamber plates: Material Steel Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 7/8

Pitch of stays to ditto: Sides 8 3/8 x 8 1/2 Back 8 1/2 x 9 Top 8 1/2 x 9 3/8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 203 lbs.

Material of stays Steel Area at smallest part 2.1 sq. ft. Area supported by each stay 8 1/2 x 9 3/8 Working pressure by rules 230 lbs. End plates in steam space:

Material Steel Thickness 1 3/8" Pitch of stays 19 3/4 x 20 1/2 How are stays secured Doub. nuts Working pressure by rules 201 lbs. Material of stays Steel

Area at smallest part 10" Area supported by each stay 19 3/4 x 20 1/2 Working pressure by rules 260 lbs. Material of Front plates at bottom Steel

Thickness 13/16 Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 1/2 at wide Water space Working pressure of plate by rules 200 lbs.

Diameter of tubes 3 1/4 Pitch of tubes 1 1/2 x 1 5/8 Material of tube plates Steel Thickness: Front 1" Back 13/16 Mean pitch of stays 8 3/4"

Pitch across wide water spaces 13 1/2 + 3/4 Working pressures by rules 210 lbs. Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 10 3/4 + 1 1/2 (2) Length as per rule 34 1/2 Distance apart 9 3/8 Number and pitch of stays in each 3 @ 8 1/2"

Working pressure by rules 220 lbs. Steam dome: description of joint to shell % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type of Approval of Plan Tested by Hydraulic Pressure


Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

Lloyd's Register

W1308-0179

F. J.

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Foundation

*Dates
of Survey
while
building*