

REPORT ON MACHINERY.

No. 14424

No. in Survey held at
Reg. Book.

Ken castle

Date, first Survey 12th Nov 1883

Received at London Office

Last Survey 30th July 1884

(Number of Visits 26)

Tons 1499
1162

on the S.S. "Sagami Maru"

Master W. Day

Built at *Ken castle*

By whom built *La. G. Armstrong Mitchell & Co*

When built 1884

Engines made at *Ken castle*

By whom made *Wallace & Shipway Engineering Co*

when made 1884

Boilers made at *Do*

By whom made *Do*

when made 1884

Registered Horse Power 225

Owners *Kido Kogyo Kaisha*

Port belonging to *Tokio*

ENGINES, &c.—

Description of Engines *Inverted Compound Surface Condensing*

Diameter of Cylinders 34 & 66 Length of Stroke 42 No. of Rev. per minute ☒ Point of Cut off, High Pressure 1/6 Low Pressure 1/6

Diameter of Screw shaft 12 Diam. of Tunnel shaft 11 Diam. of Crank shaft journals 12 Diam. of Crank pin 12 size of Crank webs 14 1/2 x 7

Diameter of screw 15-6 Pitch of screw 17-6 No. of blades 4 state whether moveable *yes* total surface 40 ~~4~~

No. of Feed pumps 2 diameter of ditto 3 3/4 Stroke 24 Can one be overhauled while the other is at work *yes*

No. of Bilge pumps 2 diameter of ditto 3 3/4 Stroke 24 Can one be overhauled while the other is at work *yes*

Where do they pump from *Engine space 5, M. hold 2, F. hold 2, A. hold 1, Tunnel well 1, All Tanks. Sea*

No. of Donkey Engines 2 Size of Pumps 10 x 12 & 4 x 8 Where do they pump from *All Bilges as above*

Engine space tank 3, M. H. tank 3, F. H. tank 1, F. H. tank 3, Bilge tank 1, F. H. tank 1

Are all the bilge suction pipes fitted with roses *yes* Are the roses always accessible *yes* Are the sluices on Engine room bulkheads always accessible *yes*

No. of bilge injections 1 and sizes 5- Are they connected to condenser, or to circulating pump *no*

How are the pumps worked *Lever over condenser*

Are all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *both*

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 *at line*

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 *—* How are they protected *—*

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times *yes*

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges *yes*

When were stern tube, propeller, screw shaft, and all connections examined in dry dock *new*

Is the screw shaft tunnel watertight *yes* and fitted with a sluice door *yes* worked from *Top platform of engine room*

BOILERS, &c.—

Number of Boilers *Two* Description *Cy. water tubes* Whether Steel or Iron *Steel*

Working Pressure 90 Tested by hydraulic pressure to 180 Date of test 29th March 1884

Description of superheating apparatus or steam chest *Horizontal cy. cylinder in neck*

Can each boiler be worked separately *yes* Can the superheater be shut off and the boiler worked separately *—*

No. of square feet of fire grate surface in each boiler 58 Description of safety valves *Spring* No. to each boiler 2

Area of each valve 14.19 Are they fitted with easing gear *yes* No. of safety valves to superheater *—* area of each valve *—*

Are they fitted with easing gear *—* Smallest distance between boilers and bunkers or woodwork 18 Diameter of boilers 14-0

Length of boilers 10-6 description of riveting of shell long. seams *Butt & S* circum. seams *Lap & S* Thickness of shell plates 1 1/2

Diameter of rivet holes 1 whether punched or drilled *Drilled* pitch of rivets 3 3/4 Lap of plating *Shingles 10 1/2*

Percentage of strength of longitudinal joint 73% working pressure of shell by rules 91 size of manholes in shell 15 x 11 1/2

Size of compensating rings 6 x 7/8 No. of Furnaces in each boiler 3

Outside diameter 40 length, top 6-9 bottom 6-6 thickness of plates 1 1/2 description of joint *Butt & S* if rings are fitted *yes*

Greatest length between rings 6-6 working pressure of furnace by the rules 97 combustion chamber plating, thickness, sides 1/2 back 1/2 top 1/2

Thickness of stays to ditto, sides 9 back 9 top 2 1/2 If stays are fitted with nuts or riveted heads *nuts* working pressure of plating by rules 95

Diameter of stays at smallest part 1 3/8 working pressure of ditto by rules 152 end plates in steam space, thickness 1/2

Separate thickness of stays to ditto 16 3/4 how stays are secured *8 nuts* working pressure by rules 101 diameter of stays at smallest part 2 1/4

Greatest pitch of stays 9° working pressure by rules *—* Diameter of tubes 3 1/2 pitch of tubes 4 3/4 thickness of tube plates, front 3/4 back 1 1/2

how stayed *Subs.* pitch of stays 14 1/2 width of water spaces 7" Diameter of Superheater or Steam chest 4-1 length 6-6 thickness of plates 1 1/2

Description of longitudinal joint *Lap & S* diam. of rivet holes 3/4

Thickness of rivets 2 1/2 working pressure of shell by rules 108 diameter of flue *—* thickness of plates *—* If stiffened with rings *—*

Distance between rings *—* working pressure by rules *—* end plates of superheater, or steam chest; thickness 1/2 how stayed *Drilled to*

Left endings & 4 Stays Superheater or steam chest; how connected to boiler *Centrally*

DONKEY BOILER— Description *Steel Boiler, Vertical 3 down tubes*
Made at *3 Terden* by whom made *Clark Chapman & Co* when made *6-5-84* where fixed *on deck*
Working pressure *70* tested by hydraulic pressure to *140* No. of Certificate *1674* fire grate area *13* ~~ft~~ description of safety
valves *Spring* No. of safety valves *1* area of each *7"* if fitted with easing gear *yes* if steam from main boilers can
enter the donkey boiler *no* diameter of donkey boiler *5-0* length *11-0* description of riveting *S L*
Thickness of shell plates *3/16* diameter of rivet holes *7/8* whether punched or drilled *yes* pitch of rivets *2 3/16* lap of plating *3 1/2*
per centage of strength of joint *70* thickness of crown plates *7/16* stayed by *divided & 4 stays 1 1/2 dia*
Diameter of furnace, top *3-8 1/4* bottom *4-2 1/2* length of furnace *5-3* thickness of plates *7/16* description of joint *S L*
Thickness of furnace crown plates *7/16* stayed by *as above* working pressure of shell by rules *70*
Working pressure of furnace by rules *70* diameter of uptake *12* thickness of plates *3/8* thickness of water tubes *3/8*

SPARE GEAR. State the articles supplied:—*Half crank Shaft, propeller Shaft & 4 propeller*
blades, valve spindle, high pressure packing ring, valve & seat for
circulating pump, air pump bucket, set of feed or bilge valves & seats
(piston patent) 2 main bearing bolts & nuts, 2 top end bolts & nuts, 2
bottom end bolts & nuts, set of coupling bolt
& nuts, a quantity of bolts & nuts & iron.
The foregoing is a correct description,
J. W. Boyd *Manufacturer.*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel*
has been specially surveyed during construction the material
and workmanship prod is eligible in our opinion to have
the notification ☒ *L. R. C. 7. 84 in the Register Book*
of the Society.

It is submitted that this
vessel is eligible to have
the notification & L. R. C.
received 11/8/84

The amount of Entry Fee .. £ *2* : — : — *received by me,*
Special £ *31* : *5* : —
Donkey Boiler Fee £ — : — : —
Certificate (if required) *gratis* : — : — — *18* —
To be sent as per margin.
(Travelling Expenses, if any, £ — : — : —)

Committee's Minute

FRIDAY 8 AUGUST 1884

John Perrekat &
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping
Richard Stiles