

REPORT ON MACHINERY.

No. 1159.

Received at London Office

THU. JAN. 24 1908.

Writing Report 11th Dec. 1917 When handed in at Local Office 11th Dec. 1917 Port of NAGASAKI.

Survey held at NAGASAKI Date, First Survey 5th Dec. 1916 Last Survey 5th Dec. 1917.
on the s.s. "Jomura Maru" (Number of Visits 108.)

K. Suzuki Built at Nagasaki By whom built Mitsubishi Gosen Kaisha Tons { Gross 3810
Net 2343
When built 1917

made at Nagasaki By whom made Mitsubishi Gosen Kaisha when made 1917

made at Nagasaki By whom made Mitsubishi Gosen Kaisha when made 1917

red Horse Power Owners Mitsubishi Goshi Kaisha Port belonging to Tokio

Horse Power as per Section 28 339 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

NES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

f Cylinders 23, 38, 56 1/2 Length of Stroke 48 Revs. per minute 88 Dia. of Screw shaft as per rule 14.5 Material of screw shaft as fitted 16.0

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

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

n the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive If two

are fitted, is the shaft lapped or protected between the liners Length of stern bush 5' 1 3/8"

f Tunnel shaft as per rule 12.49 Dia. of Crank shaft journals as per rule 13.116 Dia. of Crank pin 14" Size of Crank webs 8 3/4" x 19 5/8" Dia. of thrust shaft under

as fitted 12 3/4" Dia. of screw 16' 6" Pitch of Screw 17' 3" No. of Blades 4 State whether moreable Yes Total surface 76 sq. ft.

f Feed pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes.

f Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes.

f Donkey Engines 3 Sizes of Pumps 1 Duplex 8" x 10" x 8" 2 Simplex 8" x 6" x 21" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 3 @ 3 1/2" In Holds, &c. No. 1 Hold 2 @ 3 1/2" No. 2 Hold 2 @ 3 1/2" Tunnel 1 @ 2 1/2"

No. 3 Hold 2 @ 3 1/2" No. 4 Hold 2 @ 3 1/2" Bilge Injections 1 sizes 7" Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes, 4 1/2"

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

all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

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.

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.

t pipes are carried through the bunkers Bilge pipes How are they protected With steel plates.

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes.

he Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck.

TERS, &c.—(Letter for record S) Manufacturers of Steel David Colville & Sons Ltd. Imperial Steel Works.

al Heating Surface of Boilers 4332 1/2 Is Forced Draft fitted Yes No. and Description of Boilers 2 Single ended, Cylindrical

rking Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 18. 10. 17 No. of Certificate 77

each boiler be worked separately Yes Area of fire grate in each boiler 54.31 sq. ft. No. and Description of Safety Valves to

boiler 2 Spring loaded Area of each valve 9.62 sq. in. Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear Yes.

allest distance between boilers or uptakes and bunkers or woodwork 16 1/2" Mean dia. of boilers 14' 0" Length 11' 6" Material of shell plates Steel

ckness 1 5/16" Range of tensile strength 28432 tons Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams Double

1. seams 2 straps Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 9 1/2" x 4 3/4" Lap of plates or width of butt straps 20 1/2"

centages of strength of longitudinal joint rivets 88.6 Working pressure of shell by rules 212 lbs. Size of manhole in shell 16" x 12"

e of compensating ring 37 x 33 x 1 5/16" No. and Description of Furnaces in each boiler 3 masonry Material Steel Outside diameter 3' 9 1/4"

ngth of plain part top Thickness of plates crown 7/16" Description of longitudinal joint welded No. of strengthening rings

orking pressure of furnace by the rules 217 lbs. Combustion chamber plates: Material Steel Thickness: Sides 3/4" Back 3/4" Top 3/4" Bottom 1 5/16"

ch of stays to ditto: Sides 8" x 11" Back 9" x 10 1/8" Top 7" x 11 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 212 lbs.

aterial of stays Steel Area at smallest part 2.02 sq. in. Area supported by each stay 81.5 sq. in. Working pressure by rules 223 lbs. End plates in steam space:

aterial Steel Thickness 1 3/4" Pitch of stays 20" x 18" How are stays secured Double nut Working pressure by rules 214 lbs. Material of stays Steel

rea at smallest part 7.67 sq. in. Area supported by each stay 360 sq. in. Working pressure by rules 221 lbs. Material of Front plates at bottom Steel

hickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 3/4" Working pressure of plate by rules 211 lbs.

iameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 3/8" Material of tube plates Steel Thickness: Front 3/4" Back 27/32" Mean pitch of stays 11 1/2"

itch across wide water spaces 13 3/4" Working pressures by rules 216 lbs. Girders to Chamber tops: Material Steel Depth and

ickness of girder at centre 10 1/2" x 7 1/8" Length as per rule 31.9 Distance apart 9 3/4" x 11 1/2" Number and pitch of stays in each 3 @ 7"

Working pressure by rules 214 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

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

UPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

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

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

W1338-0148

IS A DONKEY BOILER FITTED? No. ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— As per Rule, and in addition one H.P. valve spindle, one L.P. valve spindle, 2 eccentric rods, one set each of H.P., I.P. & L.P. packing rings, one set each of top & bottom brasses for connecting rod, 13 junk ring bolts, one set of air pump valves, one impeller spindle for circulating pump, 45 condenser tubes & 134 ferrules, 3 cylinder escape valves & springs, and 2 safety valve springs. ✓

The foregoing is a correct description,

NAGASAKI WORKS, MITSUBISHI ZOSEN KAISHA, LTD.

GENERAL MANAGER.

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1916 Dec. 5. 8. 16. 29. 1917 Jan. 10. 16. 22. 24. 31. Feb. 13. 15. 22. 27. Mar. 3. 7. 8. 9. 15. 22. 27.
During erection on board vessel --- April 23. May 1. 8. 14. 21. 30. June 2. 4. 5. 7. 8. 9. 11. 14. 16. 19. 23. 25. 28. July 5. 7. 9. 10. 12. 13. 18. 19. 25. 26. 28. Aug. 1. 2. 7. 8. 11. 13. 20. 22. 29. 30. Sept. 4. 6. 8. 11. 12. 13. 14. 17. 21. 22. 24. 25. 26. 27. 29. Oct. 2. 4. 11. 13. 15. 17. 18. 19. 20. 23. 24. 26. 29. 30. Nov. 1. 2. 3. 5. 6. 10. 12. 13. 14. 16. 17. 21. 22. 24. 27. 28. 29. Dec. 1. 5.
Total No. of visits 108

Is the approved plan of main boiler forwarded herewith Yes. ✓

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 29. 10. 17 Slides 6. 11. 17 Covers 29. 10. 17 Pistons 13. 11. 17 Rods 6. 11. 17
Connecting rods 6. 11. 17 Crank shaft 23. 10. 17 Thrust shaft 23. 10. 17 Tunnel shafts 21. 9. 17 Screw shaft 23. 10. 17 Propeller 5. 11. 17
Stern tube 2. 11. 17 Steam pipes tested 22. 11. 17 Engine and boiler seatings 14. 11. 17 Engines holding down bolts 17. 11. 17
Completion of pumping arrangements 24. 11. 17 Boilers fixed 17. 11. 17 Engines tried under steam 29. 11. 17
Completion of fitting sea connections 10. 11. 17 Stern tube 5. 11. 17 Screw shaft and propeller 10. 11. 17
Main boiler safety valves adjusted 28. 11. 17 Thickness of adjusting washers No washers, brass joint nuts.
Material of Crank shaft Steel Identification Mark on Do. 137 ASW Material of Thrust shaft Steel Identification Mark on Do. 137 ASW
Material of Tunnel shafts Steel Identification Marks on Do. 137 ASW Material of Screw shafts Steel Identification Marks on Do. 137 ASW
Material of Steam Pipes Steel ✓ Test pressure 600 lbs ✓

Is an installation fitted for burning oil fuel. ✓

Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules been complied with. ✓

Is this machinery duplicate of a previous case Yes. ✓ If so, state name of vessel "Kagano Maru." ✓

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

These Engines and Boilers have been constructed under Special Survey, in accordance with the Rules, and of good materials and workmanship. They have been securely fitted on board, and have been satisfactorily tried under steam. The Machinery of this vessel is eligible, in my opinion, for the record of **LMC 12.17** in the Register Book.

Mean speed of 6 Runs on Trial when $\frac{1}{2}$ Loaded = 14.411 knots.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 12.17. F.D.

JM KD. 25/1/18

A. S. Williamson
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3 : 0 : 0 :
Special ... £ 55 : 13 : 0 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 10th Dec. 1917.
When received, 12th Dec. 1917.

Committee's Minute

TUE JAN. 29 1918.

Assigned

+ LMC 12.17

F.D.

URGENTLY SUBMITTED



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Foundation