

4b.

REPORT ON OIL ENGINE MACHINERY.

No. 7356

15 NOV 1931 786

15-10-31

Writing Report

20-5-1931

When handed in at Local Office

20-5-1931

Port of

Kobe & Yokohama

YOKOHAMA 26-11-30

Date, First Survey

28-4-30

Last Survey

1-10-31

9-4-1931

Number of Visits 54 + 22

Survey held at Kobe & Uraga

on the
 Single
 Twin
 Triple
 Quadruple

Screw vessel M.V. "KATSURAGI MARU"

Tons
 Gross 5841
 Net 3485

at Uraga

By whom built Uraga Dockyard Co. Ltd. Yard No. 374 When built 1931

es made at Jama

By whom made Mitani Bussan Kaisha Engine No. 4000 When made 4-31

y Boilers made at Uraga

By whom made Uraga Dock Co. Ltd. Boiler No. 374 When made 1931

Horse Power 6000

Owners Kokusai Kaisha Port belonging to Hashidate

Horse Power as per Rule 814.2 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

for which vessel is intended Ocean going

ENGINES, &c.—Type of Engines Solid injection Supercharging 2 or 4 stroke cycle 4 Single or double acting Single

n pressure in cylinders 12 Kg/cm² Diameter of cylinders 740 mm Length of stroke 1500 mm No. of cylinders 10 No. of cranks 10

bearings, adjacent to the Crank, measured from inner edge to inner edge 1040 mm Is there a bearing between each crank Yes

ms per minute 115 Flywheel dia. 7.01 ft Weight 1.968 tons Means of ignition Compression Kind of fuel used Heavy fuel oil

Shaft, dia. of journals as per Rule 514.7 mm as fitted 525 mm Crank pin dia. 525 mm Crank Webs Mid. length breadth about 860 mm Thickness parallel to axis 326 mm Thickness around eye hole 232 mm

el Shaft, diameter as per Rule 15.99 inches as fitted 16 1/2 inches Intermediate Shafts, diameter as per Rule 15.225 inches as fitted 15 7/8 inches Thrust Shaft, diameter at collars as per Rule 15.99 inches as fitted 16 1/2 inches

haft, diameter as per Rule as fitted 16 1/2 inches Is the screw shaft fitted with a continuous liner Yes

Liners, thickness in way of bushes as per Rule .809 in as fitted 7/8 inch Thickness between bushes as per rule .607 in as fitted 5/8 + 1/32 Is the after end of the liner made watertight in the

boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length

er 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 yes

ners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube

o If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5'-8 1/2"

er, dia. 14'-0" Pitch 14'-6" No. of blades 4 Material M. Bronze whether Moveable yes Total Developed Surface 83.5 sq. feet

of reversing Engines Direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

ed Thickness of cylinder liners 53.5 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

cting material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Water Pumps, No. 2 @ 275 tons per hour Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

umps worked from the Main Engines, No. 2 Diameter 160 mm Stroke 196 mm Can one be overhauled while the other is at work Yes

nnected to the Main Bilge Line No. and Size One 150 T/hr. One 80 T/hr. One 40 T/hr. How driven motor

Pumps, No. and size One 150 T/hr. Lubricating Oil Pumps, including Spare Pump, No. and size 2 @ 125 tons per hour

dependent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

o. and size:—In Machinery Spaces 6-2", 4-3 1/2", 1-3", 1-2 1/2"

etc. 10 1/2" dia. to 3 deep tank, 10 1/2" dia. to 4 deep tank, 10 1/2" dia. to 5 hold each 2-3 1/2" dia. to 6 hold 2-3 1/4", 10 1/2" dia. to 7 hold 1-2" dia.

lent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 10" dia. 2 pumps 275 T/hr each

e Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces

asily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes

a Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks Rock

ed sufficiently high on the ship's side to be seen without lifting the platform plates yes Are the Overboard Discharges above or below the deep water line above

h 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

pass through the bunkers How are they protected

pass through the deep tanks Have they been tested as per Rule

es, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

gement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one

to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top of engine room

essel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Compressors, No. No. of stages Diameters Stroke Driven by

Air Compressors, No. 3 No. of stages 2 Diameters 2.80/320 mm Stroke 2'10" mm Driven by 3 Aux. Diesel Engine

Charging Air Compressors, No. 1 No. of stages 2 Diameters 1 1/2"/2 1/2" Stroke 5" Driven by Hand

g Air Pumps, No. 1 Capacity 265 m³/min Pressure 3 meter in Water Column Driven by Main Engine

Engines crank shafts, diameter as per Rule 166 mm as fitted 180 mm

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

ter of Shal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

rain arrangement fitted at the lowest part of each receiver

sure Air Receivers, No. Cubic capacity of each Internal diameter thickness

welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

r Receivers, No. Two Total cubic capacity 1060 cuft Internal diameter 6'-2" thickness 1 1/16"

welded or riveted longitudinal joint riveted Material Steel Range of tensile strength 28-35 T/10" Working pressure by Rules 370 lbs.

007658-007667-0281-2

2 NOV 1931

Continuation of Report No. 4786 dated 15-10-31 on the

IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes
PLANS. Are approved plans forwarded herewith for Shafting 23-4-30 Receivers 23-6-30 Separate Tanks 9-5-31
(If not, state date of approval)
Donkey Boilers 28-7-30 General Pumping Arrangements 23-6-31 Oil Fuel Burning Arrangements 23-6-31

SPARE GEAR As per the Rules, checked and found satisfactory
checked aboard & found in order.

the machinery of the MV. "KATSURAGI MARU"

marks on Intermediate shafts:-

C. 3732 A1. LLOYD'S NO. 2824 J.F.N. LR. 19/3/31.	C. 3694 A1. LLOYD'S NO. 2790 J.F.N. LR. 19/3/31.	C. 3709 A1. LLOYD'S NO. 2789 J.F.N. LR. 19/3/31.	C. 3718 A1. LLOYD'S NO. 2807 J.F.N. LR. 19/3/31.
C. 3715 A1. LLOYD'S NO. 2798 J.F.N. LR. 19/3/31.	C. 3686 A1. LLOYD'S NO. 2816 J.F.N. LR. 19/3/31.	E. 1885 A1. LLOYD'S NO. 2825 J.F.N. LR. 13/4/31.	PROPELLER SHAFTS. SPARE. C. 2624 C.1. LLOYD'S NO. 2775 J.F.N. LR. 13/4/31.

The foregoing is a correct description,

E. O. O. Manufacturer.
for Uraga Dock Co. Ltd.

Dates of Survey of Survey while building
During progress of work in shops - 1930 Apr. 28, 30, May 12, 20, 22, June 30, July 4, 8, 10, 15, 22, 24, Aug. 6, 12, 19, 27, Sept. 22, 26, 30, Oct. 3, 6, 10, 12, 15, 18, 21, 24, 27, 30, Nov. 3, 6, 10, 13, 16, 19, 22, 25, 28, Dec. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 1931 Jan. 1, 5, 8, 11, 14, 17, 20, 23, 26, 29, Feb. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, Mar. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, Apr. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, May 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, Jun. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, Jul. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, Aug. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, Sept. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, Oct. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, Nov. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, Dec. 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 1931
During erection on board vessel - Yokohama May 14, 15, June 10, 12, 14, 29, July 15, 20, 24, Aug. 6, Sept. 1, 5, 9, 26 Oct. 14, 1931
Total No. of visits 54 visits + 22.

Dates of Examination of principal parts - Cylinders 28-10-30 Covers Ditto Pistons 28-10-30 Rods 21-5-30 Connecting rods 21-5-30
Crank shaft 24-6-30 Flywheel shaft Thrust shaft Thrust shaft 28-8-30 Intermediate shafts 3-12-30 Tube shaft 15-1-31
Screw shaft 1-5-31 Propeller 13/4, 14/5, 19/31 Stern tube 24/2, 1-9-31 Engine seatings 14-5, 10/6/31 Engines holding down bolts 10/6/31
Completion of fitting sea connections 14/5/31 Completion of pumping arrangements 26/9/31 Engines tried under working conditions 9, 12, 13
Crank shaft, Material Forged Steel Identification Mark See below Flywheel shaft, Material Forged Steel Identification Mark See below
Thrust shaft, Material Forged Steel Identification Mark See below Intermediate shafts, Material Steel Identification Marks See below
Screw shaft, Material Steel Identification Mark LR. NO 2275 Screw shaft, Material Steel Identification Mark J.F.N. 13-4-31

Is the flash point of the oil to be used over 150° F. Yes
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Yes If so, have the requirements of the Rules been complied with Yes
Is this machinery duplicate of a previous case No If so, state name of vessel Yes

General Remarks (State quality of workmanship, opinions as to class, etc.) The machinery described herein has been constructed under special survey in accordance with the Rules and approved plans. Materials and workmanship are good. On completion the machinery was tried under full power on the test bed, afterwards opened up, examined and found satisfactory, and eligible, in my opinion, to have record of + LMC oil engine, date - when the survey has been completed.

The machinery is being forwarded to Uraga for installation on the vessel No. 374, Uraga Dockyard Co. Ltd.
A copy of the report is being forwarded to Yokohama.

Identification marks on Crank shafts.

LLOYD'S
No. 8405
P.K. 26-6-30
LLOYD'S
No. 8405
P.K. 24-6-30

Please see following sheet for Yokohama fees.
The amount of Entry Fee £1.389.00 When applied for, 19
4/5 Special Survey Fee £1.389.00
Donkey Boiler Fee £ When received, 27
Travelling Expenses (if any) £11.00 27
Committee's Minute FRI, 13 NOV 1931
Assigned + d.m.c. 10.31 C.L.
Oil Eng. R.R. 100lb.

H. D. Buchanan & self.
K. Kihigami
Engineer Surveyor to Lloyd's Register of Shipping

The machinery of this vessel has been fitted onboard the vessel at Uraga, under special survey in accordance with the Rules, material workmanship good. On completion of fitting out all tried under full working conditions with satisfactory results.

The machinery of this vessel is eligible in my opinion to have the record of + LMC. 110-31.

1st Entry Fee. YEN. 60.00
1/5 Special Survey Fee " 344.00
Donkey Boiler fee. 63.00
His Reverence 126.00
His Reverence 63.00
Fees applied for: 6th October, 1931.
" paid: 12th October, 1931.

J. Milne