

# Report of Survey for Repairs, &c., of Engines and Boilers.

No. 11511

(Received at London Office)

JUL 13 1940

Report made on 13/6/40. When handed in at Local Office 14<sup>th</sup> June 1940 Port of Kobe.

Survey held at Tama. Date, First Survey 2/4/40 Last Survey 25/5/1940.

on the Machinery of the ~~Waka Maru~~ Steel M.S. "OMUROSAN MARU". (No. of Visits Seven.)

Gross 9205 Vessel built at Tama. By whom Mitsui Bussan Kaisha, Ltd. When 1937 lmo.

Net 5288 Engines made at Tama. By whom Mitsui Bussan Kaisha, Ltd. When 1937.

1231 NHP Boilers, when made (Main) -- (Donkey) 1937.

Boilers -- Owners Mitsui Bussan Kaisha, Ltd. Owners' Address

Boilers 3 Managers Port Kobe. Voyage

Boilers 200 lbs. If Surveyed Afloat or in Dry Dock Both Tama Dock.

Port No. Port Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

Years of Examination and Repairs (if any) COMPLETION OF LMC, DBS & TS.

Surveys, when held, must be reported in detail and seriatim in the terms of the Rules. State clearly the

repairs, if any, and, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on

damage (the cause of which must be stated) should be separated from Repairs due to other causes; and

details of any letters respecting this case.

cases where the Surveyor has not made a special damage report he is required to state whether he

services for this purpose, and why they were declined

report made by anyone else? If so, by whom?

or personally go inside each Main Boiler separately and make a thorough examination at this time?

Donkey Yes.

done, state for what reasons?

of the Boilers could not be thus thoroughly examined?

special means, in the absence of internal examination, were adopted by the

assure himself of the thorough efficiency of those parts of each Boiler?

date of internal examination of each boiler May 1940. Present condition of funnel(s) Good

for examine the Safety Valves of the Main Boiler? To what pressure were they afterwards adjusted under steam?

for examine the Safety Valves of Donkey Boiler? Yes. To what pressure were they afterwards adjusted under steam? 200 lbs.

for examine all the manholes, doors and their fastenings of the Main Boilers? Yes.

for examine the drain plugs of the Main Boilers? Yes.

for examine all the mountings of the Main Boilers? Yes.

shaft now been drawn and examined? Yes. Is it fitted with continuous liner? Yes. Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? No.

now been changed? No If so, state reasons

now fitted been previously used? Has it a continuous liner? Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?

examination of Screw Shaft May 1940 State the distance between lignum vitae of stern bush and top of after bearing of screw shaft 5/32".

parts, when referred to by numbers, should be counted from forward. Is electric light and power fitted? Yes.

is not complete, state what arrangements have been made for its completion and what remains to be done. Complete.

:- Vessel placed in dry dock, propeller, stern bush, sea cocks and valves with their shell

ings examined and found or now placed in good condition.

Tail Shaft with continuous liner examined and found in good condition.

The following parts of Main and Auxiliary Engines opened out for survey, examined and found

placed in good condition.

IN ENGINE:-

All (6) cylinders, pistons, valves, gears, and covers, connecting rods and top & bottom ends.

Nos. 1, 4, 5 & 8 crankshaft journals.

Thrust and Intermediate shafts.

AUXILIARIES:-

Starboard Aft Dynamo Engine - all parts.

Port Dynamo Engine - All parts. (P.T.O.).

Observations, Opinion, and Recommendation:- The machinery and donkey boilers of this

clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also

any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, B.S. 9, 11, B.M.S. 9, 11, & L.M.C. 9, 11, or

are in good condition and eligible, in my opinion, to be continued as classed with fresh

of L.M.C. (G.S.) 5, 40. D.B.S. 5, 40. and Tail Shaft (CL) seen 5, 40.

per Section 29) Yen 525:00 Fees applied for 27/5/1940

ical Survey Yen 140:00 Received by me, 19

er Section 29.) (See Hull Report).

expenses (if chargeable).

tee's Minute FRI 2 AUG 1940

d + LMC CL 5, 40

5, 40

DBS 5, 40

006903-006911-0092/13

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

Is a Certificate required? If so, to be sent to



AUXILIARIES:- (Cont.).

Port Dynamo Engine driven compressor.

Steam driven auxiliary dynamo and compressor.

Petroleum emergency generator.

Port L.P. air receiver - internally.

Auxiliary starting air receiver - internally.

Main Engine driven bilge and sanitary pumps

Independent bilge pump.

Outboard sea water cooling pump.

Steam condenser cooling pump.

Forward Lubricating oil pump.

General service pump.

Oil fuel transfer pump.

Cargo oil pumps.

Inboard fuel oil settling tank - internally.

Port fuel oil service tank - internally.

Aft fuel oil tank for donkey boiler - internally.

Pumping arrangements examined and found in order.

Electric Installation megger tested, switchboard and fuses examined and found or now placed in good condition, installation afterwards tested under working conditions with satisfactory results.

The 3 Donkey Boilers were examined over all parts with doors, mountings and safety valves and found or now placed in good condition. Safety valves adjusted under steam as stated above.

The oil burning unit pumps, transfer pumps, and heaters opened up, examined and found in good order.

Piping and pumping arrangements together with their deck controls in connection with the fuel, steam and service water and fire extinguishing devices examined and found in good order.

Installation finally examined under working conditions and found satisfactory.

RENEWAL OF MAIN ENGINE PARTS due to alteration of Piston Rod Design.

In consideration of several break downs of main engine piston rod which recently occurred on ~~xxxxxxxxxxxx~~ sister ship "OTOWASAN MARU", Messrs. Tama Shipbuilding Co., Ltd., Tama, the Builders of these engines have proposed a new design of their B.& W. type double acting engine piston.

The piston of altered design has now first been fitted to this vessel.

The principal alteration is that the upper tightening nut which was fitted immediately above the Crosshead in the previous design, is now placed at the upper end of distance pieces of top and bottom pistons, as shown in the sketch. It is also noted that the compound fillets are used in the present design.

New top and bottom pistons of their usual Copper Chrome Cast Steel, together with cast steel distance piece has now been fitted.

The forged steel Crosshead, previously fitted, have now been machined to suit the new rods, and to the dimensions of the crosshead the builders are now most apprehensive.

The new forgings and castings were tested according to the Rules.

Machinery tried at sea on completion of fitting out and found satisfactory.



Sketches of piston and rod assembly and detail of crosshead are now attached herewith.

Builders will be obliged if they are given any useful advice to this alteration.





W completed

Main Pistons & piston rods renewed  
of a new pattern.

It is submitted that  
this vessel is eligible for

THE RECORD, + dues of 5.40  
5.40

S. 5.40 S. 5.40

Cheque 1.38

G. P.

3/7/40

See also  
separate  
endorsement  
dated 30/7/40



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