

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

(Received at London Office 13 JUN 1936)

Date of writing Report 13/5/ 1936 When handed in at Local Office 15-5- 1936 Port of Kobe.

No. in Reg. Book. Survey held at Tama. Date, First Survey 17/3/36 Last Survey 30/4/ 1936. (No. of Visits Three.)

30383 on the Machinery of the ~~Wood, Iron or Steel~~ M.S. "NACHISAN MARU".

Gross 4306 Vessel built at Tama. By whom Mitsui Bussan Kaisha, Ltd. When 1931 12mo.

Net 2546 Engines made at Tama. By whom Mitsui Bussan Kaisha, Ltd. When 1931.

Nominal Horse Power 362 NHP Boilers, when made (Main) -- (Donkey) 1931.

No. of Main Boilers -- Owners Mitsui Bussan Kaisha, Ltd. Owners' Address (if not already recorded in Appendix to Register Book.)

No. of Donkey Boilers 1 Managers Port Kobe. Voyage

Steam Pressure in Main Boilers -- If Surveyed Afloat or in Dry Dock Both Tama Dock.

In Donkey Boilers 100 lbs. Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

ast Report No. Port

Particulars of Examination and Repairs (if any) LMC(CS) & DBS

Periodical Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the cause of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and details being detailed in the body of the report, should be briefly summarised at the end of the report. State also the dates and initials of any letters respecting this case.

damage cases where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose, and why they were declined

Is a damage report made by anyone else? If so, by whom?

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? --

Did the Surveyor personally go inside each Donkey Boiler separately and make a thorough examination at this time? Yes

Was this not done, state for what reasons? --

What parts of the Boilers could not be thus thoroughly examined? --

What special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each Boiler? --

What is the latest date of internal examination of each boiler? April, 1936.

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

Did the Surveyor examine the Safety Valves of Donkey Boiler? Yes To what pressure were they afterwards adjusted under steam? 100 lbs.

Did the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? -- , and of the Donkey Boilers? Yes

Did the Surveyor examine the drain plugs of the Main Boilers? -- , and of the Donkey Boiler? --

Did the Surveyor examine all the mountings of the Main Boilers? -- , and of the Donkey Boiler? Yes

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

Has the shaft now been changed? -- If so, state reasons -- Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? --

Has the shaft now been 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? --

What is the date of examination of Screw Shaft? -- State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft 3/32".

Engine parts, when referred to by numbers, should be counted from forward.

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

WORK DONE:- Vessel placed in dry dock, propeller, aft end of stern bush, sea cocks and valves with their shell fastenings examined and found in good condition.

The following parts of the machinery opened up for survey, examined and found in good condition.

Main Diesel Engine:-

Nos. 2, 7 & 8 cylinders, pistons, valves, gears, and covers.

Nos. 2, 7 & 8 connecting rods, and top and bottom ends.

Nos. 2 & 3 crank shaft journals, thrust and intermediate shafting.

No. 2 (S.Fore) Aux. Diesel Engine:- complete together with No. 2 (S.Fore) Aux. compressor.

Forward starting air receiver - internally.

Starting air bottle for auxiliary diesel:- internally.

Pumping arrangements and all pumps. P.T.O.

General Observations, Opinion, and Recommendation:- The machinery and boiler of this vessel

(State 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, or L.M.C. 9, 11, 140 lb., F.D., &c.)

Is the vessel in good condition and eligible, in my opinion, to be continued as classed with fresh record of

LMC (CS) 4,36 and DBS 4,36.

Survey Fee (per Section 29) Yen 100:00 Fees applied for 6/5/ 1936

Alteration Special Damage or Repair Fee (if any) Yen 100:00 Received by me, 19

Travelling expenses (if chargeable) (See Hull Report).

Committee's Minute FRI. 8 JUL 1936

Assigned + LMC CS 4,36 DBS 4,36

CERTIFICATE WRITTEN

TUE 8 JUN 1937

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

007352-007362-0084



2 O.F. settling tanks and 1 O.F. head tank - internally.

The One Donkey Boiler was examined over all parts with doors, mountings and safety valves and found in good condition. Safety valves adjusted under steam as stated above.

Electric fittings:- examined as per Rules and megger test satisfactorily carried out.

Main and auxiliary engines examined under working condition and found in good condition.

ALTERATION FOR PASSENGER SERVICE:-

To comply with the Japanese Government Regulations, a new emergency generating set for lighting and power has been fitted in one compartment under bridge, and a new emergency bilge pump (driven by electric motor) has been fitted in one W.P. compartment abaft the engine room.

Details of the new emergency generating set are as follows:-

One oil engine, 4 stroke cycle single acting, built by Mitsui Bussan Kaisha, Tama.

No. of cylinder:-	5
Dia. of "	4½". method of starting - by hand.
Length of stroke:-	6"
R.P.M.	900.
Max. pressure:-	700 lbs/m.m. <sup>2</sup> mean indicated pressure 80 lb/m.m. <sup>2</sup> .
B.H.P.	30
Crank shaft:-	Dia. Pin, 2½", Journal 2½", Span of bearing $\phi$ to $\phi$

NOTE:- The material of the nickel steel crank shaft has not been tested by the Society Surveyor, but the scantlings are in accordance with the Rules. Plan attached hereto.

One electric generator (20 K.W. D.C.) built by Matsuura Denki Seisaku-sho, Osaka.  
LR Cert. No. 4975.

The engine has been examined under full working conditions and afterwards opened up, all parts examined and found free from visible defects and in good working order.

The Owners request that this engine might be accepted and this request is forwarded for the favourable consideration of the Committee.

*The material of crank shaft of the oil Engine for the emergency generator was tested by the maker & test result enclosed herewith. ptk*

N.B.—If this Report is copied by copying Press, especial care must be taken that the copying paper is not so much damped as to spread the ink, or to cause it to show through to the other side.

THE SURVEYOR ARE REQUESTED NOT TO WRITE ACROSS THE MARGIN.



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