

# REPORT OF SURVEY FOR REPAIRS, &c., OF ENGINES AND BOILERS

(Received at London Office)

9 AUG 1952

Date of writing Report 14th July, 1952. When handed in at Local Office 19

Port of KOBE

in Survey held at Aioi

Date. First Survey 8th May, Last Survey 31st May, 1952.

(No. of Visits 11)

on the Machinery of the ~~Wood, Iron or Steel~~ S.S. "SHUNKEI MARU" (EX. "BIRCH BANK")

Gross 6433.48 Vessel built at Glasgow

By whom D. & W. Henderson Co., Ltd., When 1921 11

Net 3941.55 Engines made at "

By whom " When

Boilers, when made (Main) (Donkey)

No. 7 3-chome, Sakura Tsukamoto

Owners Kato Senpaku K.K.

Owners' Address cho, Toyonaka-shi, Osaka Pref.

(if not already recorded in Appendix to Register Book.)

Managers

Port Osaka Voyage

If Surveyed Afloat or in Dry Dock Both (State name of Dock)

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

CHARACTER. * for Special Survey. Date of last Survey and of Periodical Surveys.	Years assigned now expired.	Machinery and Boiler Surveys (including date of N.B., if any)
+100A1		+LMC 11, 47
2,51		BS 2,51
10.51		CL 8,50
		BS 2,52
		CL 11, 10, 51

Particulars of Examination and Repairs (if any) LMC, TS & Conversion

(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 besides 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.)

In 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

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

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? None

If not, 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?

State latest date of internal examination of each boiler: F.P. & S. 13/5/52 A.P. & S. 15/5/52 Present condition of funnel(s) Good 215 lbs

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

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

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

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

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

Has the screw shaft now been drawn and examined? Yes Has it a continuous liner? Yes Is an approved oil retaining appliance fitted at the after end? -

Has shaft now been changed? - If so, state reasons - Has the shaft now fitted been previously used? - Has it a continuous liner? -

Is an approved oil retaining appliance fitted at the after end? - State date of examination of Screw Shaft 13-5-52 State the wear down in the stern bush 2 m/m Is electric light and power fitted? Yes If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? Yes

Has the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? Yes

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

Now Done:- Ship placed in drydock, propeller, aft end of stern bush, sea connections & valves with their shell fastenings, examined & found or now placed in good condition. Screw shafts with continuous liner, examined & found or now placed in good condition.

Engines opened up for survey: All cylinders, pistons, slide valves and rods, crank, thrust and intermediate shafting, pumps and condensers (tested), valves, cocks, pipes, and strainers of the pumping arrangements and bilge system, bilge injection valve opened up examined and found or now placed in good condition.

Main & Aux. steam pipes & feed pipes removed for examination and tested by hydraulic pressure to XWP.

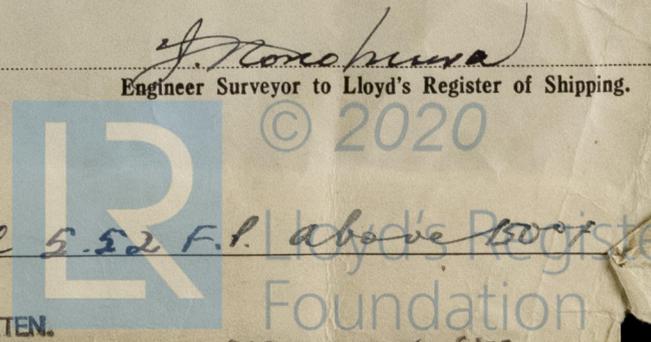
Electrical Equipment: Installations generally examined and tested under working conditions. Fittings on all main and sub-distribution switchboards and boxes examined to ensure circuits are not overfused. Electric cables examined as far as practicable. Generators, cables, heaters, fuses, etc., tested, insulation resistance found to be not less than 100,000 ohms. (P.T.O.)

General Observations, Opinion, and Recommendation:- (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, BS 9,11, B&MS 9,11, \*LMC 9,11 or \*LMC 140 lbs., FD, &c.) The machinery & boilers of this ship are in good condition & eligible in my opinion to be continued classed with fresh record +LMC 5,52 and Tail shaft (CL) seen 5,52. And to have the notation of fitted for O.F. 5,52 F.P. above 150°F.

Fee (per Section 29) LMC £ 74,000. TS £ 6,000. Conversion £ 50,000. Fees applied for 19. Received by me, 19.

Committee's Minute Rpt. THURS 20 NOV 1952

Assigned +LMC 5,52 5,52 Fitted for oil fuel 5,52 F.P. above 150°F



The 4 Main Boilers examined internally and externally with doors, mountings, fastenings and safety valves & found or now placed in good condition. Safety valves adjusted under steam as stated above.

O.F. Conversion:- 2 O.F. unit pump (capacity - each 8 T/H)  
1 O.F. transfer pump, 2 O.F. heaters. (capacity 50 T/H)  
2 Sets of strainers & one set of starting unit has been constructed & fitted as per Rules.  
2 O.F. Separate settling tanks having <sup>155</sup> tons capacity each, constructed as per Rules & approved plans & fitted at previous side bunker P. & S. together with tank fittings. Pumping & piping arrangement in connection with feed, steam, fresh water, bilge & ballast lines together with their deck control & fire extinguishing device & steam heating coils were newly fitted for No. 3, 6 and deep tanks P. & S.  
On completion of the above conversion the instrument were tested and tried under working condition & found satisfactory.  
Original funnel damper has now been renewed.

Repairs due to wear and tear:- 8 propeller blade stud bolts renewed.

Main Engine: Crank shaft lifted and Main hearings faced up. Centering of shafting and cylinder adjusted. 1st M.P. & L.P. crank pins filed up, crank brassed (bottom half) remetalled and fastened. Thrust collors lathed and adjusted. 1 coupling bolt of intermediate shaft renewed. All ahead eccentric straps (top half) and 2nd M.P. ahead and astern eccentric straps (bottom half) remetalled. H.P. 1st & 2nd M.P. eccentric sheeves skimmed and adjusted. 3 H.P. piston slide junk ring bolt renewed. H.P. and 2nd M.P. piston rods skimmed and neck bushes renewed. 2nd & L.P. slide valve spindles skimmed and neck bushes renewed. 2nd M.P. & L.P. guides (ahead & astern) skimmed and adjusted. 20 tubes of Main condenser renewed and its cover and division fitted with part doublers & tested.

Auxiliaries:- Piston rods of 1 Circulating, F. & A. feed pumps, 1 ballast, 1 sanitary pump, 1 water pump, aft outboard dynamo engine and fan engine skimmed and neck bushes renewed. Main circulating pump steam cylinder bored, piston & slide valve false face renewed. Sanitary pump slide valve renewed. Foreward outboard dynamo engine slide valve and inboard dynamo engine piston, slide valve and governor weight renewed. 2 sprocket wheels of windlass welded and 1 piston renewed. 420 tubes of aux. condenser renewed, shell plates part doubled and tested by hydraulic pressure and found good. At owners request, 1 evaporator removed at this time.

Boiler:-

S.aft boiler Centre furnace jacked up to original diameter and found 3 cracks, about 6 inches long, veed out & welded.

All boiler smoke tubes, air heating tubes and small stays and nuts renewed as follows:-

	<u>Smoke tube</u>	<u>Air heating tube</u>	<u>Small stay &amp;</u>	<u>Nut</u>
F.S. boiler	-	8	2	11
F.P. boiler	71	4	3	3
A.S. boiler	3	5	2	8
A.P. boiler	34	1	4	-

Some long of shell seam on each boiler found leaked & caulked.

3 main check valves of F.S. boiler & A.P. & S. boilers, 2 feed non-return valves of P. & S. boilers renewed.

At the request of Owners, on completion of repairs. 4 boilers were tested by hydraulic pressure to 18.5 kgs/cm<sup>2</sup> and found tight & good.

Electric equipment:-

3 armatures of Aft in & outboard & fore outboard generators removed to shop and commutators skimmed and refitted and tested under working condition as per Rules.

Minor repairs found effected.

Interim Certificate issued, copy attached hereto.

