

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

(Received at London Office

JUL -8 1940

Date of writing Report 20/5/40. When handed in at Local Office 20th May 1940 Port of Kobe.

No. in Reg. Book. 36780 Survey held at Tama. Date, First Survey 7/4/40 Last Survey 16/5/1940.
(No. of Visits Five.)

36780 on the Machinery of the ~~Hanku~~ Steel T.M.S. "YAHIKO MARU".

Gross Tonnage 5747 Vessel built at Harima. By whom Kobe Steel Works, Ltd. When 1926 lmo.
Net Tonnage 3575 Engines made at Kobe. By whom Kobe Steel Works, Ltd. When 1926.
Nominal Horse Power 776 NHP Boilers, when made (Main) -- (Donkey) N.D.B. -'18 refitted '35.
of Main Boilers -- Owners Itaya Miyakichi. Owners' Address --
(if not already recorded in Appendix to Register Book.)
of Donkey Boilers 1 Managers Itaya Syosen K.K. Port Tokyo. Voyage --
Main Pressure -- If Surveyed Afloat or in Dry Dock Both.
Main Boilers -- (State name of Dock.) Tama Dock.

Donkey Boilers 120 lbs. Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

st Report No. Port PART LMC(CS), DES
Particulars of Examination and Repairs (if any) & DAMAGE.

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

Where was 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 was the latest date of internal examination of each boiler? April 1940.

Present condition of funnel(s) Good

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? 120 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 --

Has the shaft 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? --

What was the date of examination of Screw Shaft? --

State the distance between lignum vitae ~~XXXXXXXX~~ of stern bush and top of after bearing of screw shaft P. 1 1/8". S. 3/16"

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

Is electric light and power fitted? Yes.

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

NOW DONE:- Vessel placed in dry dock. P & S propellers, aft end of stern bushes, sea cocks and valves with their shell fastenings examined and found or now placed in good condition.

The following parts of main and auxiliary engines opened out, examined and found or now placed in good condition.

PORT MAIN ENGINE:-

All (4) cylinders, pistons, valves, gears and covers.

No.4 connecting rod and top end.

No.3 bottom end.

Nos.2, 4 & 6 crankshaft journals.

Intermediate shafts.

Main Compressor:- All parts, except bearing. (P.T.O.).

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

(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, & L.M.C. 9,11, or L.M.C. 120 lb., F.D., &c.)

Vessel are in good condition and eligible, in my opinion, to be continued as classed, L.M.C. (G.S.)

5, 39. be retained with fresh under date 5, 40 and D.B.S. 5, 40.

Survey Fee (per Section 29) Yen 190:00

Special Damage or Repair Fee (if any) Yen 100:00

(per Section 29.)

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

Committee's Minute FRI. 19 JUL 1940

Assigned CS D.B.S. 5.40

CS 5.40

Fees applied for 17/5/19 40

Received by me, 19

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

009341-009349-0153 1/2

PARTS NOW EXAMINED for LMC(CS):- (Cont.)STARBOARD MAIN ENGINE:-

All (4) cylinders, pistons, valves, gears and covers.

Nos. 2 & 3 connecting rods and top ends.

Nos. 3 & 4 bottom ends.

Nos. 1, 2, 3 & 5 crankshaft journals.

Thrust shaft.

Intermediate shafts.

Main Compressor:- All parts, except bearing.

AUXILIARIES:-

Port Aft Dynamo Engine:- All parts with compressor and air bottle.

Starboard Dynamo Engine:- All parts with compressor and air bottle.

Injection air receiver for starboard main engine - internally.

Starboard piston cooling pump.

Ballast pump.

Starboard main engine driven lubricating oil and Bilge pumps.

Port main engine driven sanitary pump.

2 centre spare H.P. air bottles on starboard side.

The Donkey Boiler was 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 fuel burning installation for Donkey Boiler examined under working condition and found in order.

DAMAGE stated to have been caused by coal barges fouling the port propeller on the 23rd March 1940 at Tama, whilst laying at anchor. For further particulars please see Kobe Damage Report dated 16th May 1940.

Port Propeller:-

1 bronze blade of built up propeller, badly bent front the root - now renewed, with spare.

1 blade piece broken off at the tip, about 20" x 4" - blade now repaired.

It was further recommended that the One new blade to be supplied as spare.

REPAIRS DUE TO DAMAGE TO STARBOARD DYNAMO ENGINE, stated No. 4 cylinder (adjacent to flywheel) bottom end bolts broken and subsequently No. 4 connecting rod bent and No. 4 piston skirt fractured and crank casing and bed in way - broken.

Bed, crank casing, connecting rod and piston and gudgeon pin renewed.

Crank shaft examined on lathe for truth, all main bearing and bottom end brasses remetalled and shaft centre line adjusted.

REPAIRS DUE TO WEAR AND TEAR:-

Main engine, starboard No. 2 cylinder wall and liner - renewed, on account of crack to wall in way of cover stud.

Starboard No. 4 piston renewed due to star crack on the combustion top.

Port main compressor gudgeon pin renewed due to wear.

Port aft dynamo engine:- All (4) pistons renewed due to excessive width of packing ring groove, and all gudgeon pins renewed on account of wear.

Other minor repairs and adjustments effected.