Rpt. 9.

No. 35-23

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

(Received at London Office ..... 19 .....)

Date of writing Report 28th July 1942. When handed in at Local Office ..... 19 ..... Port of Rio de Janeiro

No. in Reg. Book ~~25846~~ 15961 — Survey held at Rio de Janeiro — Date, First Survey January 6th Last Survey July 25th 1942. (No. of Visits 16.)

on the Machinery of the ~~Wood, Iron or~~ Steel Hr Sc M.V. "ITAPAGE".

Tonnage Gross 4998 / Net 3012.	Vessel built at Rouen	By whom Chant. de Normandie	When 1927. 11 (Year. Month.)
Nominal Horse Power 704	Engines made at Pentheet	By whom Ch. & Atel de Penhoet	When 1927
No. of Main Boilers ✓	Boilers, when made (Main) ✓	(Donkey) 1927.	
No. of Donkey Boilers 2	Owners Cia Nacional de Nav Costeira	Owners' Address ✓ (if not already recorded in Appendix to Register Book.)	
Steam Pressure— in Main Boilers ✓	Managers ✓	Port Rio de Janeiro	Voyage Brazilian coasting.
in Donkey Boilers 180 lbs	If Surveyed Afloat ~~or~~ in Dry Dock yes. Ilha do Viana (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)
✠ 100A- with pubend		✠ L.M.C. 6-40
6-40		D.B.S. 6-41
S.S. Rio No 3. 6-40		D.C. 5-40.

Last Report No. 3400 Port Rio de Janeiro L.M.C.(M) + repairs. D.B.S + Shafts.

Particulars of Examination and Repairs (if any)

(Periodical Surveys, when held, must be reported in detail and seriatim 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? ✓

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

" " Donkey " " " yes.

If this was not done, state for what reasons? ✓

And what parts of the Boilers could not be thus thoroughly examined? ✓

Also 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 10th July 1942. 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? 180 lbs a"

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 Boilers? ✓

Did the Surveyor examine all the mountings of the Main Boilers? ✓, and of the Donkey Boilers? yes.

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

Has shaft now been changed? No 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? ✓

State date of examination of Screw Shaft P.S. 10/7/42. State the distance between ~~liners and or~~ bearing metal of stern bush and top of after bearing of screw shaft Port new bush. 5/16 3/32".

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

Is electric light and/or power fitted? yes. both.

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.

This vessel was laid off for machinery overhaul and renewals. Spare parts not being available from engine makers, same have been made at Dronis works. The modified survey of machinery carried out in conjunction with the repairs. Port main engine. Completely stripped down to bedplate. Crank shaft lifted, examined and found in order. All main bearings remetalled and crank shaft bedded to original jacking, thrust and intermediate shafting examined and adjusted. All (6) cooling jacket castings removed due to wastage at joints with liner. No's 1, 4 & 6 liners renewed due to wear, engine re-assembled, new packing rings fitted to close jacket to liners, pistons examined and new rings fitted as required, pistons and connecting rods examined, crossheads machined and bearings remetalled. The piston cooling telescopic piping reconditioned, and metal packings renewed for same. The thrust block reconditioned and adjusted. Cam shaft bearings remetalled and cams renewed as found necessary. Transmission gear removed to works, gearwheels reconditioned and bearings adjusted. New cast iron wiper rings fitted to all pistons. Reversing mechanism and foreboot reconditioned, check valves of pulverizers 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, B.S. 9,11, B.&M.S. 9,11, ✠L.M.C. 9,11, or ✠LMC 140 lb., F.D., &c.) CS 3,34,

This vessel's machinery is now in good order, eligible to be continued as classed, with record of ✠ L.M.C.(M) 7-42, D.B.S. 7-42 and same shaft sem. O.E. 7-42.

Survey Fee (per Section 29) £25.500$000 — Fees applied for 27th July 1942.

Special Damage or Repair Fee (if any) £ : : (per Section 29.) — Received by me, ... 19 .....

Travelling expenses (if chargeable) £1:000$000.

TUE. 3 NOV 1942

Committee's Minute + Lmb (M) 7.42

Assigned SBS 7.42

Engineer Surveyor to Lloyd's Register of Shipping.

Insert Character of Ship and Machinery precisely as in the Register Book

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

W1196 - 0169 1/2

Port of Rio de Janeiro Continuation of Report No. 3523 dated 28th July 1942 on the

T.S.M.V. "ITAPAGE"

repaired, valve fulcrums and rocking levers rebushed as found necessary, new pins fitted as required.
Main compressors overhauled, gudgeon pin bosses ground out and new crosshead pins fitted, piston rings renewed in H.P. & L.P. stages, air coolers examined and tested, the combined bilge and sanitary pump overhauled.
Starboard main motor. Stripped down to bedplate, crank shaft lifted, examined, and found in order. All main bearings including compressor bearing remetalled, shaft bedded to original journals, thrust shaft bearings remetalled, intermediate shafting and bearings examined, and all adjusted. All cylinder liner cooling jackets removed on account of wastage at joint with liner. No. 2 3 & 6 cylinder liners renewed due to wear, remainder in good order. Pistons and rods examined, new rings fitted as required and new C.I. wiper ring fitted to each piston. Crosshead pins machined and bearings remetalled throughout and engine remounted. Cam shaft journals machined and bearings remetalled. All new packing rings made and fitted to close joint of jackets to liners. Transmission gears removed, journals and bearings reconditioned, telescopic piping for piston cooling reconditioned, and new metallic packings fitted to same. Main thrust block overhauled and adjusted.
Combined bilge and sanitary pump overhauled, reversing unit reconditioned, check valves of fuel injectors repaired, valve fulcrums and rocking levers bushed and new pins fitted as found necessary.
Main compressors examined, new gudgeon pin fitted, valves overhauled, and new H.P. & L.P. piston rings fitted.
Air coolers examined and tested, H.P. cooler tubes renewed.
Generators (steam driven) both stripped down, and the seatings for both units re-rivetted, all working parts examined and found in order. The dynamos, motors and electrical circuits tested and found in order.
Main lubricating oil pump, cooling water pump, ballast, transfer, sanitary, general services, and boiler feed pumps examined, also the auxiliary air compressor, reconditioned as required and found in order. The doors and water box of air cooling condenser renewed, tested and found satisfactory. The air receivers examined internally, found in good order, also the valves and pressure piping. Lubricating oil and daily service tanks cleaned and examined and found in good order.
The donkey boilers examined throughout with all their mountings, doors and safety valves, found same in good order, and safety valves adjusted under steam. The oil burning installation examined under working conditions, found to be in good order.
The vessel placed in dry dock, fastenings of propellers, stern tubes and brackets, oil glands and sea valves examined and found in order. Both screw shafts drawn in and examined, the Port stern tube renewed and shafts replaced, oil glands overhauled and propellers refitted. All sea valves and cocks opened up, examined and found in order.
On completion of this overhaul the vessel was taken into the bay for trials, when the main and auxiliary machinery also the electrical installation was examined under working conditions and found to be satisfactory

AWB.

MOD Survey & DBL held
Sc Shafts examined
Main Bearings re metalled
H.P. Cylinder liners renewed
& minor repairs.

It is submitted that this vessel is eligible for "LLOYD'S RECORD."

H.Lice (M) 7.42
D.B. 7.42
Both 5.7.42

26/10/42