

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

(Received at London Office 10 NOV 1934)

Date of writing Report 2nd Nov. 1934 When handed in at Local Office 2nd Nov 1934 Port of Belfast.

Survey held at Belfast Date, First Survey 20th Sept. Last Survey 26th Oct. 1934

258 on the Machinery of the Wood, Iron or Steel T.S. IROQUOIS (No. of Visits 23)

Gross 9202
 Net 5772 Vessel built at Belfast By whom Harland & Wolff Ltd. When 1907-10
 Engines made at " By whom " When 1907
 Boilers, when made (Main) 1907 (Donkey) "
 Owners Anglo-American Oil Co Ltd. Owners' Address "
 Managers F. J. Wolfe Port Belfast Voyage "
 If Surveyed Afloat or in Dry Dock Alexandra D.D. (State name of Dock.)

Report No. _____ Port _____

Particulars of Examination and Repairs (if any) LMC

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 or expired.	Machinery and Boiler Surveys (including date of N.B., if any).
<u>+100A1</u>	<u>2, 23</u>	<u>+LMC 8, 30</u>
<u>S.S. Rot No 3 - 5, 21</u>		<u>BS 12, 33</u>
<u>S.S. H.L. No 2 - 30</u>		<u>S 4, 32</u>
		<u>CLP 4, 32</u>

Carrying petroleum in bulk fitted for oil fuel 2, 16. FR. above 150°.

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

Surveyor examine the Safety Valves of the Main Boiler? Yes To what pressure were they afterwards adjusted under steam? 215 lb D

Surveyor examine the Safety Valves of Donkey Boiler? " To what pressure were they afterwards adjusted under steam? "

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

Surveyor examine the drain plugs of the Main Boilers? Yes and of the Donkey Boiler? "

Surveyor examine all the mountings of the Main Boilers? Yes and of the Donkey Boiler? "

Shaft now been drawn and examined? Yes - Starboard only Is it fitted with continuous liner? Yes - jointed as an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? "

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? "

Date of examination of Screw Shaft 3/10/34 State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft S - close fit

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

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

WORK DONE:- Vessel in dry dock; propellers, sea fastenings and sea connections examined. Starboard screw shaft drawn out and examined (jointed continuous liner) A crack, nearly 3 ins long, was noted in the liner. This crack was situated 9" aft of the middle of the liner and was about 60° to the horizontal axis. At some previous time it had been pinned at the ends and run up with in solder or similar metal. No extension or opening was found and, in my opinion, the liner is meanwhile efficient.

The following parts of machinery opened out and examined:- Port & Starboard main engine cylinders, pistons valves & casings, top ends, bottom ends, guides, crossheads, crankshafts & bearings, thrust shafts & bearings, attached bilge pumps, Port & Starboard air and circulating pumps & condensers, feed pumps, hotwell pumps, ballast, general service, fire and sanitary

Observations, Opinion, and Recommendation:- The machinery of this vessel is nearly 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 by alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, R.S. 9, 11, B.&M.S. 9, 11, L.M.C. 9, 11, or

eligible, in my opinion, to remain as classed with fresh record of + LMC 10, 34 subject to D.B. not being used and joints of liners on Starboard T.S. being examined for expiry of 2 years

NOTE:- Starboard screw shaft seen 10, 34

Section 29) LMC £ 14: : : Fees applied for 9th Nov. 1934

Section 29) of Repair Fee (if any) £ : : : Received by me. 22.12.34

Section 29) charges (if chargeable) £ : : : 29

Surveyor's Minute FRI. 23 NOV 1934 + LMC 10.34 subject

John Ruddle 2019 Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

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1900-1605M

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

CERTIFICATE WRITTEN 31/11/35

pumps, boiler fuel oil pumps, P. S. reversing engines, steering engine and windlars. Pumping arrangements examined. Main steam pipes tested hydraulically.

Electrical Survey Port & Starboard dynamo engines opened out and examined. Both dynamos removed to shop, overhauled & tested. All circuits tested with 500 volt megger. Several circuits overhauled and retested.

B.S. All ^{main} boilers and their mountings opened out and examined internally and externally. The safety valves adjusted under steam. The front end plate manhole door on each boiler, at middle height of boiler opening into space between tubes of two low furnaces was fitted into with dogs & nuts & welded in position. Nuts spot welded.

REPAIRS

Starboard Main Engine: - FP bottom half bottom end reinstalled. 2nd MP top half top end reinstalled. Nos 4, 5, & 6 bottom halves main bearings turned out and scraped up. Bilge pump suction & discharge valve lids & seats skimmed.

Port Main Engine :-

FP bottom half bottom end reinstalled. 2nd MP bottom end reinstalled. 2nd MP ahead eccentric strap top half reinstalled. Bilge pump suction & delivery valves skimmed. Main steam pipe expansion gland tail piece at intermediate stop valve renewed.

Hotwell pump:- All rods skimmed & rebushed. Piston rings renewed.

Circulating pumps (2) Impeller shafts renewed.

Air pump (Port) Rods skimmed & rebushed.

O.F. pumps Steam & oil piston rings renewed. O.F. heaters tested.

Main feed pumps Steam rings renewed. Suction & delivery group valve skimmed up.

New surface heater fitted to main feed line.

Boilers. 1 main check valve lid and spindle renewed. Blow down valve cover studs renewed. Several tubes expanded.

Alterations to Engine room Bilge Lines

The steam duplex Bilge pump was discarded and new bilge ^{pipes} fitted and connected to the Fire, Sanitary, & Refrig. circulating pumps as shown in attached sketch. Sizes of Pumps:-

Fire Pump	16" x 10" x 14"
Sanitary "	8" x 6" x 12"
Refrig. circ. "	5 1/4" x 5" x 5"
Discarded Steam Duplex "	10" x 8" x 12"

All valves fitted are of non-return type and the pumps were tried out under working conditions with satisfactory results.

Ballast Pump This pump was removed from vessel and the Owners proposal to utilize the Fire pump and its existing connections to the ballast line for pumping ballast merits, in my opinion the favourable consideration of the Committee.

N.B.—If this Report is copied by copying Press, special 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.

