

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

Date of writing Report 2nd June 1945 When handed in at Local Office 21st June 1945 (Received at London Office 7 JUL 1945) Port of FREETOWN.

No. in Survey held at Lagos Date. First Survey 2nd March Last Survey 14th June 1945
(No. of Visits 5)

2401 on the Machinery of the Wood, Iron or Steel SS EMPIRE LIDDELL

Tonnage { Gross 1425 Vessel built at Middlesbrough By whom W Harkness & Son Ltd Year. Month. 1930 -
Net 784 Engines made at ditto By whom Richardson & Son Ltd When ditto

Nominal Horse Power 2 Boilers, when made (Main) ditto (Donkey) ✓
No. of Main Boilers 2 Owners Ministry of War Transport Owners' Address London
No. of Donkey Boilers ✓ Managers Elder Dempster Line Ltd (if not already recorded in Appendix to Register Book.)
Steam Pressure in Main Boilers 180 Port London Voyage ✓
in Donkey Boilers ✓ If Surveyed Afloat or in Dry Dock Both Lagos (State name of Dock.)

Last Report No. 101 Port Lagos

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

CHARACTER. Date of 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)

100 A1 MS 2.44
Classification BS 2.44
contemplated. TS 2.44
2.44 NOT in RB
EX 2.44

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? ✓

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

" " Donkey " " " " ✓

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 P13.6.45 S13.6.45

Did the Surveyor examine the Safety Valves of the Main Boilers? Yes all To what pressure were they afterwards adjusted under steam? 180 lbs per sq. in.

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 all and of the Donkey Boilers? ✓

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? Yes all and of the Donkey Boilers? ✓

Is 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? ✓

Is 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 oil retaining appliance fitted at the after end? ✓ State date of examination of Screw Shaft 9.3.45 State the wear down in the stern bush close

Is electric light and/or power fitted? Yes If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? Yes

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

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

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

Now done for docking. The vessel placed on the floating dock and the propeller, sea connections and their fastenings and the funnel examined and found in good condition. The screw shaft drawn examined and found in good condition, the stern bush slack in the stern tube, the stern bush renewed.

Now done for B.S. The port and starboard boiler examined internally and externally with safety valves, doors and mountings and found in good condition. The safety valves afterwards adjusted to 180 lbs per sq. in. under steam.

Now done for general examination. The main engines and auxiliaries generally examined and found in good condition. The Owners representative reports that the machinery is giving satisfactory service. The following machinery parts ordered out for routine P.T.O.

General Observations, Opinion, and Recommendation: The machinery of this vessel as now

(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 or LMC 9.11 or LMC 140 lb., FD, &c.)

is in an efficient condition and eligible in my opinion to remain as classed with fresh record of B.S. 6.45 and T.S. 3.45.

subject to the dynamo being repaired at earliest opportunity.

Fee (per Section 29.) B.S. Section £ 7 10 0 Fees applied for 20.6.1945

Special Damage or Repair Fee (if any) (per Section 29.) £ 3 3 0

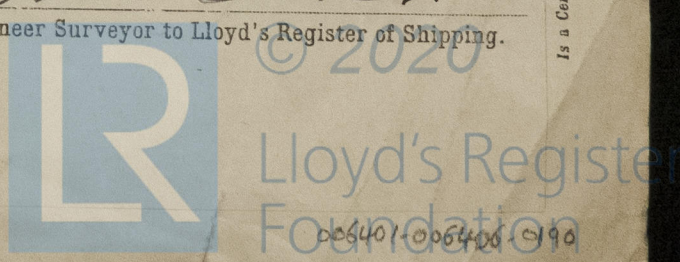
Travelling expenses (if chargeable) £ ✓ : ✓ : ✓ Received by me, 22.6.1945

Committee's Minute FRI 17 AUG 1945

Signed As now, subject

S3.45 CL. BS 6.45

Note 2 SB - 180 lb.



inspection examined at this time and found to be in good condition:— The main engine I.P. cylinder, piston ring, slide valve and spindle. The H.P. bottom end and crankpin, the attached pump liners and bearings. The auxiliaries tested under working conditions and found to operate satisfactorily.

The electrical installation examined throughout. a general examination made of generator, switch, distribution boards, fuse boxes and circuits so far as possible without dismantling casings. A megger test was carried out on the complete installation with satisfactory results except on the dynamo the armature and field coils were found to be low, the armature being 15,000 ohms and coils 10,000 ohms. As means do not exist at Lagos for the rewinding of these parts, a new armature and field coils have been ordered from the United Kingdom.

Now done for Ward T repairs. The stern bush renewed and wood linings renewed. The main engine attached pump lever fulcrum bearings renewed and links placed in alignment. Minor repairs carried out to sea injections.

Ballast Port All C.C.'s several stays caulked, several tubes expanded, wrapper plate seams part caulked at tops, several furnace rivets caulked at goose-necks, Centre C.C. one stoppered tube renewed. Starboard boiler. All plain tubes renewed.

All C.C.'s, several stays caulked. Bottom manhole door built up by electric welding where wasted.

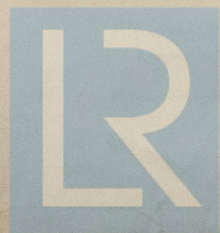
Both boilers several mountings valves renewed.

The above repairs were efficiently carried out.

It is recommended that the dynamo be repaired at earliest opportunity in the meanwhile it is considered efficient.

S.P.L. As the screw shaft has been specially examined at this time the notation "Core of T.S. examined" is recommended to be deleted from the Special Reason List.

J.R.V.



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