

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

(Received at London Office)

27 MAR 1951

Date of writing Report 9 March 51 When handed in at Local Office 24-3-51 Port of ANTWERP

No. in Survey held at ANTWERP Date. First Survey 26-10-50 Last Survey 16-12-1950
Reg. Book. (No. of Visits 3)

on the Machinery of the Wood, Iron or Steel m/v "KAMINA ex ROYAL HAROLD"

Tonnage { Gross 4424 Vessel built at Hoboken By whom J. M. Cockrell Launched Year 1940 Month
 Net 2874 Engines made at Perainf By whom do. When 1940
 Nominal Horse Power } Boilers, when made (Main) (Donkey) 1941 When 1940
 No. of Main Boilers } Owners Belgian Navy Owners' Address Force Navale Brussels
 No. of Donkey Boilers } Managers (If not already recorded in Appendix to Register Book.)
 Steam Pressure in Main Boilers } Port (none) Voyage
 in Donkey Boilers } Surveyed Afloat or in Dry Dock Cockrell and (Hoboken) Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

ast Report No. Port

Particulars of Examination and Repairs (if any) Classification & Repairs

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.

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.

as 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 " " " "

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. Both 17-11-50 Present condition of funnel(s) Good

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? Yes To what pressure were they afterwards adjusted under steam? 12 atm per sq in

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

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

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

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? Yes

Has the shaft now been changed? No If so, state reasons Has the shaft now fitted been previously used? Yes Has it a continuous liner? Yes

Is an approved oil retaining appliance fitted at the after end? Yes State date of examination of Screw Shaft 8-11-50 State the wear down in the stern bush 1.5 mm

Is electric light and/or 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

WORK DONE:- Funnel placed in drydock; propellers, propeller shaft, stern bush and sea cocks with valves and fastenings examined.

Main Motor: all cylinders, liners, covers, valves and gear, pistons, rods, guides and guide shoes, connecting rods and brasses, crankpins, all journals and bearings, thrust shaft, intermediate shafts and bearings, screw blower and all attached pumps opened out and examined.

Auxiliaries: All aux. motors with attached air compressors opened out and examined in their entirety.

All independent pumps and emergency air compressor opened out and examined.

All main and aux. starting air receivers examined throughout together with mountings etc., hydraulically tested and safety valves adjusted to the working pressures. (See Contⁿ)

General Observations, Opinion, and Recommendation: The machinery of this vessel is in

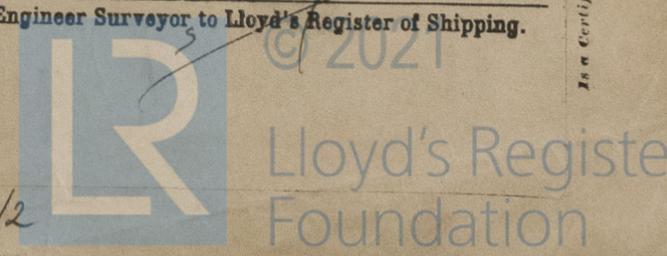
(State clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, BS 9,11, B&MS 9,11 *LMC 9,11 or *LMC 140 lb., PD, &c.)

Minimum condition and is eligible, in our opinion, to be classed in the Register Book with the record LMC 12,50 and with the notation L.C. 11.50 subject to the generator main cables being dealt with to complete the classification survey.

Survey Fee (per Section 29)	Classification	£. 22,600.-	Fees applied for
Special Damage or Repair Fee (if any) (per Section 29.)		£. 25,000.-	24-3-1951
Traveling expenses (if chargeable)		£. 3,625.-	Received by me,
Late attendances		£. 2400.-	19

Committee's Minute FRI. 19 OCT 1951
Signed See minute on F.E. Rpt.

G. J. Ackema
Engineer Surveyor to Lloyd's Register of Shipping.



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

m/s "KAMINA" on "ROYAL HAROLD"

All starting air pressure pipes and oil pressure pipes hydraulically tested.

Pumping arrangements opened out examined and tried under working conditions.

All coolers and condensers opened out, cleaned, examined and hydraulically tested.

Windlass and steering gear opened out and examined.

Daily service tanks with fittings and connections examined throughout.

Boilers: Both boilers examined throughout together with all mountings, manholes, etc. Mountings overhauled. Boilers hydraulically tested and Safety valves afterwards adjusted under steam to the pressure as noted above.

Fuel burning installation opened out examined and tried under working conditions.

Steam pipes examined and tested to hydraulic pressure as per Rules requirements.

An accumulation test was carried out with satisfactory results.

Electrical equipment: The electrical equipment examined throughout, modified in accordance with the approved plans, insulation resistances measured and installation tried under working conditions and found satisfactory.

Main and aux. machinery tried under working conditions and found satisfactory.

NOTE: - The size of the generator main cables has not been increased from 150 mm² to 185 mm² at this time, it was recommended that this be done to complete the Classification Survey.

The total load on the installation was found to be 314 kW with all electric lights switched on and about 90% of the electric driven machinery in service. The total load on the installation had been reduced through removal of ammunition lifts, torpedo lifts and most of the electrically driven machinery in workshops.

REPAIRS: - Main motor: All piston head landings machined and piston rings renewed. Small cracks in all covers cut out and E.W., covers afterwards hydraulically tested. Four crosshead brasses reinstalled.

Aux. motor completely overhauled; six cylinders covers renewed.

All pumps and pumping arrangements overhauled.

All tubes in feed water heater renewed, heater hydro. tested.

New bronze propeller fitted: ^{44040's}
²³⁰⁹
A.V.H. 27.11.50

Several lengths of electric cables renewed. Fittings and pins renewed as found necessary.