

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

(Received at London Office

10 DEC 1942

Date of writing Report 3rd Dec. 1942, When handed in at Local Office 3rd Dec. 1942, Port of DundeeNo. in Survey held at Dundee Date First Survey 23rd Oct. Last Survey 30th Nov. 19428302 on the Machinery of the Wood, Iron or Steel 5/8" Matiso ex "Bitterfeld" (No. of Visits 11)

Gross 46.59 Vessel built at Kiel By whom Fried Krupp Akt. Ges. When 1930

Net 44.82 Engines made at Hamburg By whom Blohm & Voss When 1923

Nominal 1286 Boilers, when made (Main) 1930 (Donkey) ✓ Refitted 1930

No. of Main Boilers 2-SE Owners Netherland Government Owners' Address (if not already recorded in Appendix to Register Book.)

No. of Donkey Boilers 2-DE Managers Stoomvaart Maatschappij Port Willemstad Voyage

Steam Pressure in Main Boilers 213 lbs. If Surveyed Afloat or in Dry Dock Afloat

in Donkey Boilers ✓ (State name of Dock.) Eastern Wharf.

Last Report No. Port

Particulars of Examination and Repairs (if any) B.S. & General Exam

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 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. Star & Boilers 3/11/42 Port Boilers 10/11/42 Present condition of funnel(s) Good

Did the Surveyor examine the Safety Valves of the Main Boiler? yes To what pressure were they afterwards adjusted under steam? 215 lbs.

Did the Surveyor examine the Safety Valves of Donkey Boiler? ✓ 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, 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, and of the Donkey Boilers? ✓

Was 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 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? ✓

State date of examination of Screw Shaft. ✓ State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft. Vessel afloat.

Is electric light and/or power fitted. yes

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

So, did the Surveyor examine the generators, motors, switchgear, cables and fuses? } Not examined.

Has the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? } See body of report.

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

The Boilers of this vessel have been examined throughout, together with all

mountings manholes etc. Severe pitting was found to have been taking place

along the line of firebars, on the water side, & on various places on the furnace

& combustion chamber tops, in all boilers, except the star double ended boiler,

which was in good condition. Considerable welding was carried out in

way of the pitting mentioned. All mountings were thoroughly overhauled

& put in good working order, the feed check valve chests being completely

renewed on the single-ended boilers. All boilers, with their superheaters

were tested hydraulically to 245 lbs per sq in. & were found tight & sound

at that pressure, & finally all safety valves were adjusted under steam to 215 lbs.

General Observations, Opinion, and Recommendation:— The Machinery of this vessel,

(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

GLMCO 110 lb., F.D., &c.)

CS 3,34, so far as seen, appears to be in an efficient condition & is eligible in

my opinion to be classed in the Register Book with the record now

of B.S. 11-42, (Spt); & Examined 12-42, & with the notation of L.M.C. with date, when

the vessel is drydocked at Leith for the survey of the propeller shaft & underwater fittings, &

when the M.S. survey has been completed.

Survey Fee (per Section 29) £ : : Fees applied for 19

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

Travelling expenses (if chargeable) £ : : 19

Committee's Minute GLASGOW 8 DEC 1942

Assigned See F. E. Report



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

W104-0143 (1/3)

s/s "Mariso"

The scantlings & the condition of the boilers are such as to merit, in my opinion, a working pressure of 213 lbs. The main & auxiliary steam pipes were examined in place, but were not tested at this time.

The feed pumps were overhauled & were put in good condition. They were tried on the boilers & were found satisfactory. The bilge & ballast pumps, & the pumping arrangements were examined & tried & were found in order. The centrifugal pump was also examined & tried. The main circulating pipe, made of copper, was found thin in places. Patches were brazed over the thin parts, & these were further strengthened by straps. The pipe is now efficient, but the Owners propose to renew this pipe abroad, where the copper supply is more plentiful. The steering engine & windlass were examined & tried & were found in order.

It was noticed that the lagging & cleading of all the boilers, & of the steam pipes on the boiler tops, was in a bad condition, & the attention of the Owners' representative was drawn to this. Enquiries were made to see if repairs could be carried out now, but neither labour nor materials were available. The Owners propose to have this work carried out abroad at the first opportunity.

The Main Machinery, which consists of four turbines driving the shafting & propeller through single reduction gearing, was not opened up at this time, but the lubricating oil pumps were tried, & were found in order.

The Generator Engines consist of three Linke-Hoffmann 6 cylinder Diesels, & one Deutz 6 cylinder Diesel, each driving a generator of 130 Kw. The three Linke-Hoffmann Engines are situated in line abreast in the port forward corner of the Engine Room, & the Deutz is placed aft of these, also on the port side. None of these engines was opened up at this time, but it was noticed that the centre Linke-Hoffmann was out of commission due to a broken crank-shaft. It is understood that a new crank-shaft has now been ordered. The remaining two Linke-Hoffmann Engines & the Deutz Engine were examined under running conditions, & they appeared to be satisfactory. The switchboard is situated on the after bulkhead of the Engine Room, & the electric system, when examined under load, & when tested by means of earth lamps appeared to be free from earthing faults. No further opportunity was given to survey the electric installation at this time.

To complete the survey for the notation of L.M.C. with date, the main propelling machinery, gearing, & shafting

s/s "Mariso"

the condensers & air pumps, the sea cocks & valves with their fastenings, the propeller shaft, stern bush, propeller, & the electric installation throughout, including the generator engines, require to be opened up & examined, & particulars obtained for the completion of the First Entry reports.

The steam pipes also remain to be tested.

It is understood that the vessel will be drydocked in the course of a few days at Leith, when the propeller shaft & underwater fittings will be surveyed. The remainder of the survey will be carried out, as opportunity permits. The Leith Surveyors have been advised.

A plan of the pumping arrangements was made up from some details found on board, & a copy is forwarded herewith. It will be noticed that the sizes of suction are smaller than required by the Rules, but the Chief Engineer stated that no difficulty had been experienced in the pumping arrangements.

John Houston

W104-0143 (3/3)