

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

25 MAY 1940

(Received at London Office)

MAY 25 1940

Date of writing Report _____ 19 _____ When handed in at Local Office _____ 19 _____ Port of **HULL**

No. in Survey held at **Spain** Date, First Survey **29.3.40** Last Survey **12.5.1940**
9527 on the Machinery of the **Wood, Iron or Steel** **"EMPIRE SUCCESS" ex "IXIA"** (No. of Vises **81**)

Management { Gross **6009** Vessel built at **Hamburg** By whom **Vulcan. Werke** Year. Month. **1921**
Net **3646** Engines made at **B.** By whom **B.** When **1921**
Nominal Horse Power **820** Boilers, when made (Main) **1921** By whom **B.** When **1921**
of Main Boilers **4SE** Owners **Ministry of Shipping** (Donkey)
of Donkey Boilers **None** Managers **Union-Castle Mail Steamship Co. Ltd. Port. London** Owners' Address _____
Main Pressure **206 lb** If Surveyed Afloat or in Dry Dock **King George** Voyage _____
Donkey Boilers **1** (State name of Dock.) _____

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

Particulars of Examination and Repairs (if any) **Class Contemplated**
Special Surveys, when held, must be reported in detail and seriatim in the terms of the Rules. State clearly 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 the nature of such repairs, as being detailed in the body of the report, should be briefly summarised at the end of the report. State also the date and initials of any letters respecting this case. **1940 S 20/3, M 29/3, F 29/3, S 2/4, S 8/4, F 1/4**

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

Has the Surveyor personally go inside each Donkey Boiler separately and make a thorough examination at this time? **Yes**

Were any 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? **Yes**

What parts of the Boilers could not be thus thoroughly examined? **None**

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? **None**

Latest date of internal examination of each boiler **P. 5.4.40 C. 30.3.40 S 25.4.40 F. 28.3.40** Present condition of funnel(s) **Good**

Surveyor examine the Safety Valves of the Main Boiler? **Yes** To what pressure were they afterwards adjusted under steam? **206 lb**

Surveyor examine the Safety Valves of Donkey Boiler? **Yes** To what pressure were they afterwards adjusted under steam? **None**

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

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

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

Screw shaft now been drawn and examined? **Yes** Is it fitted with continuous liner? **Yes** Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? **Yes**

Shaft now been changed? **No** If so, state reasons _____

Shaft now fitted been previously used? **Yes** Has it a continuous liner? **Yes** Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? **Yes**

Distance of examination of Screw Shaft **5.4.40** State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft **3/32**

Engine parts, when referred to by numbers, should be counted from forward. Is electric light fitted? **Yes**

Did the Surveyor examine the generators, motors, switchgear, cables and fuses? **Yes**

Insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? **Yes**

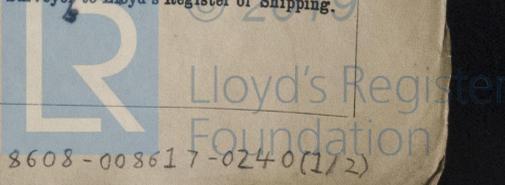
Survey is not complete, state what arrangements have been made for its completion and what remains to be done **To Complete the Survey**

Port boiler safety valves to adjust under steam and bottom manhole doors to refit after electric welding flanged in end plates in way, and main auxiliary steam pipes to test. It was stated survey would be advanced to middleboilers to which port the vessel has now proceeded; Surveyor advised. Done: Vessel placed in drydock. Examined propeller, screwshaft (cl), bushes, sea connections and fastenings. Examined main engine cylinders, valves, crank thrust and intermediate shafting. The thrust shaft, or inner shaft of the flexible drive connecting up with the main geared shaft to short shaft, was withdrawn to machine single removable thrust collar, the pads of which were badly ground down; pads reinstalled. P.T.O.

General Observations, Opinion, and Recommendation:— The machinery of this vessel, as 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 L.M.C. 140 lb., F.D., &c.)
As seen, is in good condition and in our opinion eligible to be classed in the Register Book with record of LMC 5,40 on completion of survey and T.D. (cl) per

Fee (per Section 29) £ : : Fees applied for 10
Damage or Repair Fee (if any) £ : :
Expenses (if chargeable) £ : :
Received by me, **W.S. Shields & A. King, Surveyors**

Committee's Minute **FRI, 21 JUN 1940**
Signed **See Ind 76 50675**



Steel screw Steamer "EMPIRE SUCCESS" ex "IXIA"

Examined condenser (tested), main and auxiliary pumps, pumping arrangements, dynamo, engines, switchboards, circuits (megger tested).

Examined boilers internally and externally with all mountings, doors and fastenings. The backs of the combustion chambers are buckles but efficient. A selected number of superheater elements were removed, cut, examined and found satisfactory, also a number of others tested. Two of the main steam pipes of the starboard boiler were seen internally and appear satisfactory. Examined boilers under steam and adjusted safety valves including superheater safety valves as above.

Tried all machinery under working conditions and found same satisfactory.

It was recommended that the bottom manhole doors be refitted with electric-welding flanges-in end plates in way, but this was overlooked. The port boiler centre safety valve could not be adjusted above 200 lb, low when the spring was screwed down hard. It was stated above would be done at Middlesbrough: Surveyors advised.

The Bauer-Wach turbine has been blanked off, as the turbine shaft to reduction gearing, it was stated, fractured completely after leaving Hamburg for Durban in July 1940.

The main gear wheel connecting low pressure turbine to main shaft was found to have a number of teeth partly burnt away, it was stated, by ship's engineers at Durban in September 1940.

The low pressure turbine is thus out of use.

The circulating pump impeller lower casing already fitted with a shaped copper patch was refitted and is in efficient condition.

The air pump chamber has already been re-inforced by plates electric welded together around the base and is in efficient condition.

The main and auxiliary engines have been overhauled throughout and HP engine and shafting aligned. The HP engine piston hood renewals and guide shoes remounted and other minor repairs effected.

W.S. S.P.C.F.