

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

(Received at London Office.)

Date of writing Report 30th JANUARY 1922 When handed in at Local Office 19 Port of HAMBURG

No. in Reg. Book 59193 Survey held at HAMBURG Date, First Survey 25th Aug 21 Last Survey 13 January 1922 (No. of Visits 44)

37168 on the Machinery of the Wood, Iron or Steel THE S.S. 4761 "EMPEROR OF SCOTLAND" Master EX KAISERIN AUGUSTE VICTORIA

Gross Tonnage 24521 Vessel built at STETTIN By whom A. G. G. "VULCAN" When 1905

Net Tonnage 14847 Engines made at STETTIN By whom A. G. G. "VULCAN" When 1905

Registered Horse Power 1810 Boilers, when made (Main) 1905 (Donkey) (Aux) 1905

No. of Main Boilers 8 Owners CANADIAN PACIFIC RAILWAY CO. Port LONDON Voyage U.S.A. via U.K.

No. of Donkey Boilers 1 If Surveyed Afloat or in Dry Dock Afloat & Dry Dock Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

Team Pressure Aux (State name of Dock.) "Vulcan"

In Donkey Boilers Aux

Last Report No.

Port

Particulars of Examination and Repairs (if any) B.S. Long Rep & Alter

Periodical Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the nature 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 date 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? - Was a damage report made by anyone else? If so, by whom? -

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

Do. " Aux " Donkey " " " yes

Is was not done, state for what reasons? -

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? -

the Surveyor examine the Safety Valves of the Main Boiler? yes To what pressure were they afterwards adjusted under steam? -

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

the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? yes , and of the Donkey Boiler? yes

the Surveyor examine the drain plugs of the Main Boilers? yes , and of the Donkey Boiler? yes

the Surveyor examine all the mountings of the Main Boilers? yes , and of the Donkey Boiler? yes

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? -

shaft now been changed? no If so, state reasons -

Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? -

the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft? Fit 7/32" - Stb. 3/16"

Survey is not complete state what arrangements have been made for its completion and what remains to be done? no complete.

In Dry Dock examined propellers, propeller shafts, fastenings of stern bushes & sea connections and found in order.

Examined the Main & Auxiliary Boilers internally & externally, their mountings, & found all of these Boilers in order after the following repairs had been carried out:

42 Turnover fitted new (old boiler & 2 furnaces. In No 6 boiler and 4 in No 7 boiler and all furnaces in S.E. Boiler); the lower rows of stays in combustion chambers where liners have been fitted new, a number of plain & stay tubes renewed, all mountings dressed up. On each boiler 2 sets of valves of water gauges stand pipes (one fore & one aft) replaced by cocks as required by the Rules. All Boilers tested to 320 lbs hydraulic pressure. See Continuation.

General Observations, Opinion, and Recommendation:—

(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, R.S. 9, 11, R.&M.S. 9, 11, or R.&M.C. 9, 11, 140 lb., F.D., &c.)

The Machinery of this vessel is now in good & efficient condition eligible in my opinion for records "L.M.C. 1, 22" and "Fitted for oil fuel 1, 22 - F.P. above 150° F."

Survey Fee (per Section 28.) £ 100 0 0 Fee applied for 24/7/22

Special Damage or Repair Fee (if any) (per Section 28.) £ 100 0 0 Received by me 28/3/22

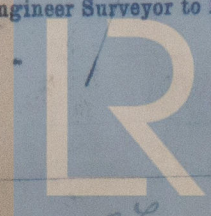
Travelling Expenses (if chargeable) £ 100 0 0

Committee's Minute

Signed

Friedrich H. A.

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
Foundation

S.S. "EMPRESS OF SCOTLAND"

Alterations: All boilers are fitted for burning oil fuel. The oil fuel installation (Tulvan System) now fitted, including settling tanks, sludge & overflow tanks, deep tank bunkers, air & overflow, draining pipes, pneumaticators, heating plants, observation tanks, pumps, pumping arrangements, headers, strainers. Quick closing valves have been made in accordance with the approved plans and the Society's letters.

E. 30/8/21 - 14/9/21 - 7/10/21 - 27/10/21 - 13/12/21 - 3/1/22. along with popps and otherwise in conformity with the requirements of Section 49 of the Rules. The pilot-hold ventilation is satisfactory; the fire extinguishing apparatus are of approved type (fire foam) in addition thereto connection to steam lines. I attended to a trial trip, when the whole fuel oil installation has been tested under working conditions & when it has given full satisfaction.

Upon completion of repairs & alterations all boilers have been examined under steam and were found tight. The safety valves have been adjusted to 213 lbs. The thickness of adjusting washers is as follows:

Forward Boilers.

Aft. Boilers.

Boilers:	Port	Port Centre	Stb. Centre	Stb.		Port	Port Centre	Stb. Centre	Stb.
Port	26 ¹ / ₂ in.	24.5 ¹ / ₂ in.	24.5 ¹ / ₂ in.	25.2 ¹ / ₂ in.		28 ¹ / ₂ in.	26.5 ¹ / ₂ in.	29 ¹ / ₂ in.	35.5 ¹ / ₂ in.
Centre	27 "	23.5 "	22 "	28 "		30 "	23 "	31.5 "	30.5 ¹ / ₂ in.
Stb.	24 "	18.5 "	25 "	28.2 "		30 "	27 "	26 "	31. "
Port	28.5 "	25.2 "	24.8 "	28.5 "		29.8 "	25 "	30 "	35 "
Centre	24.5 "	26 "	26 "	29. "		30.5 "	25 "	35 "	32 "
Stb.	24.5 "	18 "	24.8 "	31 "		31.5 "	25.5 "	29. "	30 "

For. Boiler. Port - 28.8 ¹/₂ in. - Centre 27.7 ¹/₂ in. - Stb. 25.7 ¹/₂ in.

Repairs & Renewals to Machinery. - P. cylinders re-bored, new pistons & springs fitted, piston rods skimmed up, new metallic glands fitted.

2 new evaporators fitted in engine room; evaporators tested under steam, safety valves adjusted to 28 lbs.

Hbg 30/1/22. Friedrich Gill



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