

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

(Received at London Office)

JUN 13 1939

Date of writing Report _____ When handed in at Local Office 10-6-39 Port of Belfast

No. in Reg. Book. 78495 Survey held at Belfast Date, First Survey 9 Feb 1939 Last Survey 28 May 1939
(No. of Visits 31)

on the Machinery of the Wood, Iron or Steel T.W. S. Llandaff Castle

Tonnage { Gross 10799
Net 6538 Vessel built at Belfast By whom Workman Clark & Co. When 1926-12

Nominal Horse Power 1086 Engines made at _____ By whom _____ When 1926

No. of Main Boilers 5 Boilers, when made (Main) 1926 (Donkey) _____

No. of Donkey Boilers _____ Owners Union Castle Mail S.S. Co. Ltd. Owners' Address _____
(if not already recorded in Appendix to Register Book.)

Steam Pressure in Main Boilers 220 Managers _____ Port London Voyage _____

in Donkey Boilers _____ If Surveyed Afloat & in Dry Dock Thompson
(State name of Dock.)

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

Last Report No. _____ Port _____

Particulars of Examination and Repairs (if any) Compl't LMC. BS. Conversion to oil fuel

(Periodical Surveys, when held, must be reported in detail and seriatim 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 12 May '39

Did the Surveyor examine the Safety Valves of the Main Boiler? Yes To what pressure were they afterwards adjusted under steam? 220 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? Yes and of the Donkey Boilers? _____

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

Has screw shaft now been drawn and examined? Part 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? No

Has 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 appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? _____

State date of examination of Screw Shaft 24-4-39 State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft 3/16"

Engine parts, when referred to by numbers, should be counted from forward. 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 To complete the survey N° 172 generator engines to be overhauled & made good.

Now done. Vessel placed in dry dock, propellers outside fastenings & all sea connections examined. Prop screw shaft drawn in & examined. Main boilers opened up & examined in their entirety with mountings, doors & fastenings. New safety valves fitted to each boiler is St. 2 1/4" and Dls 3" cast iron double spring marine improved high lift. The boilers have been adapted for burning oil fuel by the Babcock & Wilcox natural draught method. The oil fuel system together with the amended arrangement of bilge & ballast systems have been fitted in accordance with the approved plans, the oil fuel unit & discharge piping have been tested.

General Observations, Opinion, and Recommendation:— The machinery of this vessel as now run (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, E.M.S. 9, 11, L.M.C. 9, 11, or L.M.C. 140 lb., F.D., &c.)

is eligible in our opinion to remain as classed and to have record of survey + LMC N/S 5-38 as previously recommended, BS 5-39. Prop screw shaft examined 4-39, and Adaptation adapted for oil fuel FP plans 150 5-39, subject to N° 172 generator engines being made good.

Survey Fee (per Section 29).....	<u>BS</u>	£ 9 : 0 : 0	Fees applied for <u>12.6.39</u>
Special Damage or Repair Fee (if any).....		£ 4 : 0 : 0	
Travelling expenses (if chargeable).....		£ 2 : 2 : 0	Received by me, <u>4.7.1939</u>

Committee's Minute _____
Assigned _____

+ Lmb 5-38 Subject
BS 5-39
note fitt. for oil fuel 5-39

Checks of Handover for J.E. Madigan
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register of Shipping
CERTIFICATE WRITTEN
U 193-0074(112)

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

A Certificate required? If so, to be sent to _____

to 500 lbs/°" see Deeps letter 24.5.39. Extended spindles for the oil fuel system including oil fuel transfer & unit pumps have been fitted & tested, an observation drain tank is fitted in connection with the oil fuel heating system.

A Pyrene gravity fire extinguishing installation has been fitted in the boiler room in accordance with the approved plan, together with an auxiliary equipment consisting of one 34 gallon tank with a length of hose and 4-2 gals tanks, all operations tested & found efficient.

Examined:-

Starboard Main engine opened up all cylinders pistons valves & casings, crossheads & guides, crank thrust & tunnel stuffing Pent & Stand² attached pumps, circulating, bilge & ballast, general service & feed pumps and condensers.

Main & auxiliary steam pipes examined & tested by hydraulic pressure. Pumping arrangement, valves cocks pipes & strainers examined.

Electrical installation tested & examined as per rules requirements.

Repairs:-

Boilers; all mountings overhauled, all plain tubes expanded (3 renewed) several bottom manhole door studs renewed All boilers insulated on bottom Single ended boiler fastenings overhauled, new pins fitted.

Engines:-

A steel strip has been fitted to the P & S. 1P cylinder covers where corrosion had taken place. P & S condensers tubes withdrawn examined cleaned & replaced, also auxiliary condenser, all condensers tested. A new impeller shaft fitted to 5th² circulating pump. Several lengths of bilge piping renewed in Boiler room.

Electrical:-

Boiler room & crew accommodation wiring modified & revised to suit new conditions. General repairs effected to Main & emergency switch boards, circuit breakers, switches & fuses. N° 1 & 2 generator governors were repaired but full load could not be obtained, recommended that the engine cylinders & valves be examined & overhauled.

On completion of the oil fuel installation the main boiler safety valves were adjusted under steam to 220 lbs/°", The accumulation with the largest size of lips supplied did not exceed 10% with the maximum oil pressure 250 lbs/°" at the pump.

C. J. W.