

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

(Received at London Office)

2 JUN 1931

Date of writing Report 19 June 1931 When handed in at Local Office 1st June 1931 Port of Belfast.

No. in Reg. Book. Survey held at Belfast Date, First Survey 3rd Mar. Last Survey 29 May 1931 (No. of Visits 26)

69502. on the Machinery of the Wood, Iron or Steel S. "DUNAFRIC".

Tonnage { Gross 3489. Vessel built at Glasgow. By whom Barclay Curle & Co Ltd When 1909-3.
Net 2134. Engines made at Glasgow. By whom Burmeister & Wain Ltd When 1914.
(Donkey) 1914.

Nominal Horse Power { 405. Boilers, when made (Main) Owners Bank Line Ltd. Owners' Address (if not already recorded in Appendix to Register Book)
No. of Main Boilers 2. Managers A. Weir & Co. Port Glasgow. Voyage

No. of Donkey Boilers 2. If Surveyed Afloat or in Dry Dock Yes both. Afloat. (State name of Dock.)

Steam Pressure in Main Boilers 140 lb. in Donkey Boilers 100 lb.

Last Report No. Port

Particulars of Examination and Repairs (if any) + LMC. NDB.

(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? ✓

Do. " Donkey " " " " ✓

If this was not done, state for what reasons? See 1st Entry report. ✓

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? ✓

Did the Surveyor examine the Safety Valves of the Main Boiler? ✓

To what pressure were they afterwards adjusted under steam? ✓

Did the Surveyor examine the Safety Valves of Donkey Boiler? ✓

To what pressure were they afterwards adjusted under steam? 120 lbs. ✓

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

, and of the Donkey Boiler? ✓

Did the Surveyor examine the drain plugs of the Main Boilers? ✓

, and of the Donkey Boiler? ✓

Did the Surveyor examine all the mountings of the Main Boilers? ✓

, and of the Donkey Boiler? ✓

Has 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 the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft? 5 3/32

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

Now done. Vessel placed in dry dock, propeller & outside fastenings examined. Sea cocks and valves opened out & examined.

Main engines. Cylinder liners drawn & examined. Water spaces cleaned out & jackets & studs etc examined. Cylinder heads sent to shop, tested under hydraulic pressure & all valves overhauled. All piston rods, top & bottom ends, crossheads, main bearings, crank, thrust & tunnel shafting opened out and examined. Main engine compressors opened out & examined. Beam shaft together with its driving wheels, rods & fuel pump drive examined. Fuel pump sent to shop & overhauled.

All auxiliary engines, compressors, & pumps opened out, examined & placed in good order. Air receivers examined internally, blast air bottles examined & tested under hydraulic pressure to 2000 lbs. Separate fuel tanks examined.

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, or L.M.C. 9, 11, 140 lb., F.D., &c.)

is now in a good and efficient condition and eligible in our opinion to remain as classed in the Register Book, with fresh record + LMC, NDB 5, 31. Pressure 120 lbs. ✓

Survey Fee (per Section 28) £13 0 0

Fees applied for 1st June 1931

Special Damage or Repair Fee (if any) £5 5 0

(per Section 28.)

Travelling Expenses (if chargeable) £

Received by me, H. G. 1931

TUE. 16 JUN 1931

Committee's Minute

Assigned

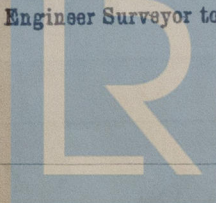
+ LMC 5, 31

note 2 NDB 31-120 lbs

Del 2 NDB 14-100 lbs

CERTIFICATE WRITTEN

John K. Williams. R. Lee Ames. Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation W 479-0710

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

all pumping arrangements, pipes & connections examined & placed in good order.
Electric installation, motors, switchboards, fittings & connections and all cables
examined. All cables throughout vessel renewed.

Megger test of all motors & cables made.

Repair & renewals

Two existing boilers removed and replaced by one new single ended boiler.
(FE report herewith)

Old ballast pump removed and replaced by new pump.

Two fuel oil pressure pumps removed & replaced by two new pumps.

Existing Kromhout engine removed together with pumps and replaced by
Gardner Diesel engine driving dynamo, lubricating oil & circulating water pumps.

Hot air compressor erected on new seat and chain drive from main engine
crank shaft installed.

Old steam dynamo removed & replaced by new one.

All main engine crossheads skimmed up & sleeves of Vanadium steel fitted,
& top end brushes re-metalled.

Old water-cooled exhaust manifold removed & new non-cooled manifold
fitted & lagged.

1 main engine cylinder head sent to shop chain pinned where found cracked
and tested under hydraulic pressure.

2 bottom end brushes, top halves re-metalled.

Main engine fuel pump plunger renewed.

2 aux engine pistons found cracked, bored out & fitted with screwed plugs
& pinned from side.

A number of minor repairs carried out in good order.

Main & auxiliary engines tried out at moored trials & manoeuvring
trial carried out according to Rule requirements.