

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS,

No. 60375

NOV 9 1938

Bel. 12.312

Date of writing Report 19 When handed in at Local Office 5. 11. 38 Port of Glasgow.
 No. in Survey held at Glasgow. Date, First Survey 11: 5: 38 Last Survey 28: 10: 1938
 Reg. Book. Number of Visits 28

on the Single Screw vessel RICHMOND CASTLE Tons { Gross _____ Net _____
Triple
Quadruple

Built at Belfast By whom built Harland & Wolff Ltd. Yard No. 1012 When built 1938

Owners Union Castle Mail SS Co. Ltd Port belonging to London.
Engines Nos 1148, 1149, 1150.

Oil Engines made at Glasgow. By whom made Harland & Wolff Ltd. Contract No. 1012 When made 1938
 Generators made at Belfast By whom made Harland & Wolff Ltd Contract No. 1012 When made 1938

No. of Sets 3 Engine Brake Horse Power 440 ^{each.} Nom. Horse Power as per Rule 377 Total Capacity of Generators 900 Kilowatts.

OIL ENGINES, &c.—Type of Engines Enclosed trunk. Solid injection 2 or 4 stroke cycle 4 Single or double acting S.A.
 Maximum pressure in cylinders 500 lb. Diameter of cylinders 330 mm. Length of stroke 580 mm. No. of cylinders 6 No. of cranks 6
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 400 mm. Is there a bearing between each crank yes

Revolutions per minute 270 Flywheel dia. 1900 mm. Weight 4.9 tons Means of ignition Compression Kind of fuel used Diesel oil
 Crank Shaft, dia. of journals as per Rule 202 mm. Crank pin dia. 220 mm. Crank Webs Mid. length breadth 288 mm. Thickness parallel to axis Solid
as fitted 280 " Mid. length thickness 115 " Thickness around eye-hole 7 ryls

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 24 to 20 mm.
as fitted on crank shaft as fitted

Is a governor or other arrangement fitted to prevent racing of the engine yes Means of lubrication Forced
 Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged

Cooling Water Pumps, No. Ship's system. Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 Lubricating Oil Pumps, No. and size 1 each engine. 6 1/2 tons per hour.

Air Compressors, No. No. of stages Diameters Stroke Driven by
 Scavenging Air Pumps, No. Diameter Stroke Driven by

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
 Can the internal surfaces of the receivers be examined Man What means are provided for cleaning their inner surfaces
 Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No. Cubic capacity Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Belfast Report on Range of tensile strength Working pressure by Rules

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type Open type
 Pressure of supply 222 volts. Load 1350 Amperes. Direct or Alternating Current Direct

If alternating current system, state frequency of periods per second
 Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off yes

Generators, do they comply with the requirements regarding rating yes are they compound wound yes
 are they over compounded 5 per cent. yes, if not compound wound state distance between each generator

is an adjustable regulating resistance fitted in series with each shunt field - Are all terminals accessible, clearly marked, and furnished with sockets yes
 are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yes

PLANS. Are approved plans forwarded herewith for Shafting yes Receivers - Separate Tanks -
 (If not, state date of approval)

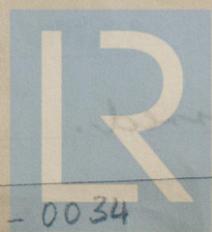
SPARE GEAR as per list attached.

The foregoing is a correct description,
 For HARLAND AND WOLFF, LIMITED,
Wm. J. Wright.

Manufacturer.

Finnlestone Secretary.

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Lloyd's Register Foundation

WJW/38

Dates of Survey while building

1938 May: 11. 12. 13. 17. 23. 24 June: 7. 15. 17. 23. 27. 29 July Aug: 8. 10. 15. 18. 22. 26. 30
 Sep: 6. 9. 13. 22. 28. 29 Oct: 7. 24. 28

Dates of Examination of principal parts—Cylinders 23-6-38 29-7-38 18-8-38 Covers 17-6-38 25-8-38 Pistons 22-8-38 30-8-38 29-7-38 Piston rods

Connecting rods Crank and Flywheel shaft 17-5-38; 7-6-38; 17-6-38 Intermediate shaft

Crank and Flywheel shaft, Material *Steel* Identification Mark 8828 P.F. 8092 P.F. 8092 L.C.P. Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case *Yes*. If so, state name of vessel *"Rochester Castle" Gls. Regt No. 58011*

General Remarks (State quality of workmanship, opinions as to class, &c.)

These auxiliary engines have been built under Special Survey and in accordance with the approved plans and the Rules of this Society. The materials and workmanship are good. The engines have been tested under full load on the Works test bed, and have now been shipped to Belfast to be fitted on board the vessel.

Fogging reports will be forwarded with report on duplicate engines 1013.

These engines have been efficiently installed & fastened in seats in the Main motor room. They have been tried out under full working conditions with satisfactory results. The vessel is eligible in my opinion for classification in the Society's Register Book.

Charles J. Hunter
 Belfast
 23/2/39.

The amount of Fee ... £ 37 : 14 : 8 - NOV 1938
 Travelling Expenses (if any) £ : : 6 Dec. 1938 See Sec. C.4

P. Fitzgerald.
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 8 - NOV 1938

Assigned *Deferred.*

TUE 28 FEB 1939

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See Bel. 76.12312

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