

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 60509

DEC 21 1938

Date of writing Report 19... When handed in at Local Office 19:12:1938 Port of Glasgow.  
 No. in Survey held at Glasgow. Date, First Survey 23-5-38 Last Survey 16-12-1938  
 Reg. Book. Number of Visits 30  
 on the <sup>Single</sup> ~~Triple~~ ~~Quadruple~~ Screw vessel "ROWALLAN CASTLE". Tons {Gross Net  
 Built at Belfast By whom built Harland & Wolff Ltd. Yard No. 1013 When built 1938  
 Owners Union Castle Mail S.S.Co. Ltd. Port belonging to London  
 Oil Engines made at Glasgow By whom made Harland & Wolff Ltd. Contract No. 1013 When made 1938  
 Generators made at Belfast By whom made Harland & Wolff Ltd. Contract No. 1013 When made 1938  
 No. of Sets 3 Engine/Brake Horse Power 440 <sup>each</sup> Nom. Horse Power as per Rule 377 <sup>total</sup> Total Capacity of Generators 900 Kilowatts.

OIL ENGINES, &c.—Type of Engines ~~Endless trunk~~ Solid Injection. 2 or 4 stroke cycle 4 Single or double acting S.A.  
 Maximum pressure in cylinders 500 lb/sq. in. 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. as fitted 280 mm. Crank pin dia. 220 mm. Crank Webs Mid. length breadth 288 mm. Thickness parallel to axis Solid  
 as per Rule on crank shaft Intermediate Shafts, diameter as per Rule as fitted Thickness around eye-hole forged  
 Flywheel Shaft, diameter as per Rule as fitted Thickness of cylinder liners 24 to 20 mm.  
 Is a governor or other arrangement fitted to prevent racing of the engine when detached 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 at 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  
 Can the internal surfaces of the receivers be examined 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 of each Internal diameter thickness  
 Seamless, lap welded or riveted longitudinal joint Material 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 220 volts. Load 1350 Amperes. Direct or Alternating Current Direct current.  
 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 20-12-37 Receivers ✓ Separate Tanks ✓  
 (If not, state date of approval)

SPARE GEAR  
 As per list enclosed with Glasgow Report No 60375 on duplicate copies No. 1012.

The foregoing is a correct description,  
 For HARLAND AND WOLFF, LIMITED,

Wm. J. Wright.

Manufacturer.

Finneston Secretary



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Lloyd's Register  
 Foundation

W116-6096

Handwritten signature and date: J. J. 19/11/38

Dates of Survey while building { During progress of work in shops - - } 1938 May: 23.24 June: 30 July: 1.12 Aug: 5.8.30.31 Sep: 5.22.30 Oct: 26 Nov: 2  
 { During erection on board vessel - - - } 2.3.7.10.11.16.18.24.28.30 Dec: 2.5.6.9.12.14.16  
 Total No. of visits 30

Dates of Examination of principal parts—Cylinders 2-11-38 11-11-38 2-12-38 Covers 2-11-38 14-12-38 Pistons 28-11-38 5-12-38 Piston rods ✓

Connecting rods 28-11-38: 5-12-38 Crank and Flywheel shaft 5-9-38, 30-6-38 Intermediate shaft ✓

Crank and Flywheel shaft, Material Steel Identification Mark 9048 P.9 8092 P.9 8997 GRC. Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case? No If so, state name of vessel Richmond Castle, Glasgow Regt No. 60375

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 Waters test bed, and are being shipped to Belfast to be fitted on board the vessel.

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

Charles J. Hunter  
 Belfast 15.3.39

Im. 7, 28—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 37 : 14 :  
 Travelling Expenses (if any) £ : :  
 When applied for, 20 DEC 1938  
 When received, 18.1.1939 See Sec C.4.  
 P. Fitzgerald, Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 20 DEC 1938

Assigned before.

TUE. 28 MAR 1939

J.S.M. // See KE machine



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