

Bel. 11.524

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Date of writing Report 15th Mar. 1935 When handed in at Local Office 18th Mar. 1935 Port of GLASGOW
No. in Survey held at Glasgow Date, First Survey 7th Sep 1934 Last Survey 5th Mar. 1935
Reg. Book. 1071 on the Single Screw vessel ROTHESAY CASTLE Tons { Gross Net

By whom built Harland & Wolff Ltd. Yard No. 944 When built 1935
Owners Union Castle Mail S.S. Co. Ltd. Port belonging to LONDON
Engines made at Glasgow By whom made Harland & Wolff Ltd. Contract No. 944-1 When made 1935
Generators made at Belfast By whom made Do. Contract No. 944 When made 1935
No. of Sets 3 Engine Brake Horse Power 433 Nom. Horse Power as per Rule 371 Total Capacity of Generators 900 Kilowatts.

ENGINES, &c.—Type of Engines Heavy oil, trunk type: air-bus injection 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 500 lbs./sq. in. Diameter of cylinders 330 cms. Length of stroke 580 cms. No. of cylinders 6 No. of cranks 6
Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 400 cms. Is there a bearing between each crank Yes
Revolutions per minute 270 Flywheel dia. 1900 cms. Weight 4.9 tons Means of ignition Compression Kind of fuel used Diesel oil
Crank Shaft, dia. of journals as per Rule 190 cms. Crank pin dia. 220 cms. Crank Webs Mid. length breadth 288 cms. Thickness parallel to axis Solid
as fitted 280 cms. Mid. length thickness 115 cms. Thickness around eye-hole Forgings
Flywheel Shaft, diameter as per Rule filled to Intermediate Shafts, diameter as per Rule filled to Thickness of cylinder liners 24 to 30 cms.
as fitted crank shaft Is there a governor or other arrangement fitted to prevent racing of the engine when declutched 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
Boiling Water Pumps, No. Ship's System Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Lubricating Oil Pumps, No. and size 1 each @ 6 1/2 tons/hr.
Air Compressors, No. None No. of stages — Diameters — Stroke — Driven by —
Sucking Air Pumps, No. None Diameter — Stroke — Driven by —

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule —
Are 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. Report on Main Engines Cubic capacity of each — Internal diameter — thickness —
Material — Range of tensile strength — Working pressure by Rules —
Is it seamless, lap welded or riveted longitudinal joint —
Working Air Receivers, No. Belfast Total cubic capacity — Internal diameter — thickness —
Material — Range of tensile strength — Working pressure by Rules —
Is it seamless, lap welded or riveted longitudinal joint —

ELECTRIC GENERATORS:—Type Harland & Wolff — Open type.
Voltage of supply 220 volts. Load 1350 Amperes. Direct or Alternating Current Direct
Is it an 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
Do the 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 Yes 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

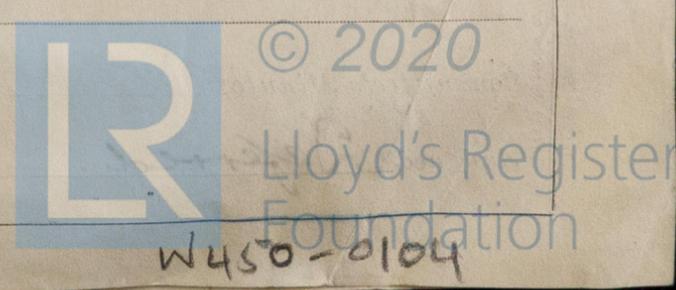
APPROVED PLANS: Are approved plans forwarded herewith for Shafting Oct. 1933 per Mr. Wainwright Receivers Bel. Ppt. Separate Tanks Bel. Ppt.
ARE GEAR As per list forwarded with fls. Ppt. 55-347.

18/3/35.

26/3/35

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

Manufacturer.



Dates of Survey while building
 During progress of work in shops - 1934 Sep: 7 Nov: 2, 6, 20, 23, 28 Dec: 19, 24, 28 (1935) Jan: 7, 10, 11, 14, 16, 18, 23, 25, 28, 29
 During erection on board vessel - Feb: 5, 21 Mar: 5
 Total No. of visits 22

Dates of Examination of principal parts - Cylinders 14-1-35 Covers 16-1-35 Pistons 16-1-35 Piston rods None
 Connecting rods 11-1-35 Crank and Flywheel shafts 6, 20+23-11-34 Intermediate shaft None
 Crank and Flywheel shaft, Material Steel Identification Mark LLOYD'S 56390 + 5050 24-11-34 6123-11-34 Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case? Yes If so, state name of vessel: *Birth ship - as per fls. Rpt. 53347.*

General Remarks (State quality of workmanship, opinions as to class, etc.) *These three auxiliary engines have been built under special survey in accordance with the Society's Rules. The materials & workmanship are good. Together with the generators they have been examined under full power on the Works' test bed & found satisfactory. The engines & generators have been forwarded to Belfast to be fitted in the vessel.*

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

Rich. James, Charles J. Hendon.

1m, 7, 26 - Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minutes.)

The amount of Fee ... £ 37 : 2/-
 Electric Generation £ 6 : 6 : 0
 Travelling Expenses (if any) £ : :
 When applied for, 18 MAR 1935
 When received, 10th Ap. 19 35 See Sec's Ltr C.4.

J. Doyle
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 19 MAR 1935 FRI. 24 MAY 1935

Assigned *Deferred.* See Minute on J.E. Rpt.

