

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS,

No. 60375

Received at London Office NOV 9 1938

Date of writing Report

19

When handed in at Local Office

5. 11. 38 Port of

Glasgow.

No. in Survey held at  
Reg. Book.

Glasgow.

Date, First Survey

11. 5. 38

Last Survey

28. 10. 1938

Number of Visits

28

Single  
on the Twin  
Triple  
Quadruple

Screw vessel

RICHMOND CASTLE

Tons { Gross  
Net

Built at

Belfast

By whom built Harland &amp; Wolff Ltd.

Yard No. 1012 When built 1938

Owners

Union Castle Mail SS Co. Ltd

Port belonging to

London.

Oil Engines made at

Glasgow.

By whom made

Harland &amp; Wolff Ltd.

Contract No. 1012

When made 1938

Generators made at

Belfast

By whom made

Harland &amp; Wolff Ltd

Contract No. 1012

When made 1938

No. of Sets

3

Engine Brake Horse Power

440

Nom. Horse Power as per Rule

377

Total Capacity of Generators

900

Kilowatts.

OIL ENGINES, &amp;c.—Type of Engines Enclosed tank. 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. as fitted 280 " Crank pin dia. 220 mm. Crank Webs Mid. length breadth 288 mm. Thickness parallel to axis Solid

Flywheel Shaft, diameter as per Rule as fitted on crank shaft Intermediate Shafts, diameter as per Rule as fitted Mid. length thickness 115 " Thickness around eye hole 7 mm.

Is a governor or other arrangement fitted to prevent racing of the engine when disconnected 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.

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

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

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

(If not, state date of approval)

Receivers

Separate Tanks

SPARE GEAR

as per list attached.

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

Wm. J. Wright.

Manufacturer.

Finnlestone Secretary.

W1175 - 0034

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Lloyd's Register  
Foundation



1938 May: 11.12.13.17.23.24 June: 7.15.17.23.27/29 July Aug: 8.10.15.18.22.26.30  
Dates of Survey { During progress of work in shops - - }  
while building { During erection on board vessel - - - }  
Total No. of visits 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 29-7-38; 22-8-38; 30-8-38 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 Water test bed, and have now been shipped to Belfast to be fitted on board the vessel.

Forging 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  
23/3/39.

The amount of Fee ... £ 37 : 14 : 8 - NOV 1938

Travelling Expenses (if any) £ : : 6 Dec. 1938 See Sec. C.4.

Committee's Minute GLASGOW 8 - NOV 1938

Assigned Deferred.

P. Fitzgould.

Surveyor to Lloyd's Register of Shipping.

TUE 28 FEB 1939

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