

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 20854

Received at London Office JAN 28 1939.

Date of writing Report *24th January 39* When landed in at Local Office *24th January 39* Port of *Grimsby*  
 No. in Survey held at *Lincoln* Date, First Survey *3.10.1938* Last Survey *16. 1. 1939*  
 Reg. Book. Number of Visits *9*

Single  
Twin  
Triple  
Quadruple  
Screw vessel

*M.V. "CEDARDALE"*

Tons { Gross  
Net

Built at *Glasgow* By whom built *Blythwood Shipbuilding Co. Ltd* Yard No. *54* When built  
 Owners Port belonging to

Oil Engines made at *Lincoln* By whom made *Ruston & Hornsby Ltd* ENGINE Contract No. *194739* When made *1939*  
 Generators made at *Sunderland* By whom made *The Sunderland Engineering & Shipbuilding Co. Ltd* GENERATOR Contract No. *F 6563* When made *1939*  
 No. of Sets *One* Engine Brake Horse Power *16 1/2* Nom. Horse Power as per Rule *4.7* Total Capacity of Generators *8* Kilowatts.

OIL ENGINES, &c.—Type of Engines *3 VSOZ. Vertical Solid Injection* 2 or 4 stroke cycle *4* Single or double acting *Single*

Maximum pressure in cylinders *800* Diameter of cylinders *4 1/2"* Length of stroke *4 1/2"* No. of cylinders *3* No. of cranks *3*

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *5 3/32"* Is there a bearing between each crank *yes*

Revolutions per minute *450* Flywheel dia. *24"* Weight *380 lbs.* Means of ignition *Compression* Kind of fuel used *Heavy oil*

Crank Shaft, dia. of journals as per Rule *Approved* *2 3/8"* Crank pin dia. *2 3/4"* Crank Webs Mid. length breadth *3 3/4"* Thickness parallel to axis  
 as fitted *2 3/8"* Mid. length thickness *1 9/16"* Thickness around eyehole *shrunk*

Flywheel Shaft, diameter as per Rule *Approved* *2 3/8"* Intermediate Shafts, diameter as per Rule *as fitted* Thickness of cylinder liners *5/16"*

Is 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 *No. hand starting* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material *yes*

Cooling Water Pumps, No. *One* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *yes*

Lubricating Oil Pumps, No. and size *One, geared.*

Air Compressors, No. *yes* No. of stages *yes* Diameters *yes* Stroke *yes* Driven by *yes*

Scavenging Air Pumps, No. *yes* Diameter *yes* Stroke *yes* Driven by *yes*

AIR RECEIVERS:—Have they been made under Survey *yes* State No. of Report or Certificate *yes*

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 *yes* What means are provided for cleaning their inner surfaces *yes*

Is there a drain arrangement fitted at the lowest part of each receiver *yes*

High Pressure Air Receivers, No. *yes* Cubic capacity of each *yes* Internal diameter *yes* thickness *yes*

Seamless, lap welded or riveted longitudinal joint *yes* Material *yes* Range of tensile strength *yes* Working pressure by Rules *yes*

Starting Air Receivers, No. *yes* Total cubic capacity *yes* Internal diameter *yes* thickness *yes*

Seamless, lap welded or riveted longitudinal joint *yes* Material *yes* Range of tensile strength *yes* Working pressure by Rules *yes*

ELECTRIC GENERATORS:—Type *Enclosed*

Pressure of supply *110* volts. Full Load Current *43* Amperes. Direct or Alternating Current *Direct*

If alternating current system, state the periodicity *yes* Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off *yes*

Generators, are they compounded as per rule *yes* 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*

If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test *yes* and do the results comply with the requirements *yes*

If the generators are 100 kw. or over have they been built and tested under survey *yes*

PLANS. Are approved plans forwarded herewith for Shafting *22.8.36* Receivers *yes* Separate Tanks *25.2.38.*

SPARE GEAR

*As per Rule requirements.*

The foregoing is a correct description,  
**Ruston & Hornsby Limited,**  
*H. G. Kimber*

Manufacturer.

Oil & Gas Engine Dept.



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002784-002789-0140



Dates of Survey while building { During progress of work in shops - - 1938 Dec 2 13 Nov 12 14 21 Dec 12 1939 Jan 2 9 16  
During erection on board vessel - - -  
Total No. of visits 9.

Dates of Examination of principal parts—Cylinders 21-11-38 Covers 21-11-38 Pistons 21-11-38 Piston rods ✓  
Connecting rods 21-11-38 Crank and Flywheel shafts 14-11-38 Intermediate shafts ✓  
Crank and Flywheel shafts, Material Steel Identification Marks LLOYD'S 5029A 14-11-38  
Intermediate shafts, Material ✓ Housing Identification Marks 3471-21-11-38 AS.  
Identification marks on Air Receivers ✓

Is this machinery duplicate of a previous case Yes If so, state name of vessel Gms Rpt. No. 20812.

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

This engine has been built under special survey in accordance with the Rules and approved plans.

The workmanship and materials are good.

Running tests have been carried out at the Makers works with satisfactory results.

The set has been despatched to Messrs. Rhythwood Shipbuilding Co., Ltd., Glasgow, for fitting on board the vessel.

This generator set has been properly installed in the vessel.  
J. Boyle, Greenock  
25/5/39.

Requests form attached.

43759/T/38/11/1100 . P/11/2538.  
3991/T/117.

The amount of Fee £ 2 15 27.1.1939  
When applied for.  
Travelling Expenses (if any) £ : : When received.  
15.3.1939

*Beattie*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 30 MAY 1939

Assigned SEE ACCOMPANYING MACHINERY REPORT.



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5009A Bench fitted. See sketch.

3252 for rods old type