

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS,

No. 20495

MAR 28 1938

JUL -6 1938

Date of writing Report 24. 3. 38 When handed in at Local Office 25. 3. 38 Port of *Grimsby*
 No. in Survey held at *Lincoln* Date, First Survey 22. 4. 1937 Last Survey 14. 3. 1938
 Reg. Book. Number of Visits 12

Single on the Twin Triple Quadruple Screw vessel *MY DAPHNELLA* Tons { Gross Net
 Built at *Newcastle* By whom built *Hawthorn Leslie & Co. Ltd* Yard No. 610 When built 1936

Owners Port belonging to *ENGINE*
 Oil Engines made at *Lincoln* By whom made *Ruston & Hornsby, Ltd* Contract No. 185255 When made 1938
 Generators made at *✓* By whom made *✓* Contract No. *✓* When made *✓*
 No. of Sets *One* Engine Brake Horse Power 60 Nom. Horse Power as per Rule 18.6 Total Capacity of Generators *✓* Kilowatts.

OIL ENGINES, &c. Type of Engines *3VCRZ Vertical Solid Injection* 2 or 4 stroke cycle *4* Single or double acting *Single*
 Maximum pressure in cylinders *700 lbs.* Diameter of cylinders *8"* Length of stroke *10 3/4"* No. of cylinders *3* No. of cranks *3*
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *9 1/8"* Is there a bearing between each crank *yes*
 Revolutions per minute *450* Flywheel dia. *3'-4"* Weight *19 tons* Means of ignition *Compression* Kind of fuel used *Heavy Oil*
 Crank Shaft, dia. of journals as per Rule *Approved* as fitted *6"* Crank pin dia. *4 3/4"* Crank Webs Mid. length breadth *8"* Thickness parallel to axis *✓*
 Flywheel Shaft, diameter as per Rule *Approved* as fitted *6"* Intermediate Shafts, diameter as per Rule *✓* as fitted *✓* Thickness of cylinder liners *3/4"*
 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 *yes* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material *Water cooled*
 Cooling Water Pumps, No. *One* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *✓*
 Lubricating Oil Pumps, No. and size *One, geared*
 Air Compressors, No. *644* No. of stages *Two* Diameters *184 - 206 mm* Stroke *160 mm* Driven by *Engine*
 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 *✓*

Pressure of supply *✓* volts. Load *✓* Amperes. Direct or Alternating 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 *✓*

Generators, do they comply with the requirements regarding rating *✓* are they compound wound *✓*

are they over compounded 5 per cent. *✓* 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 *✓*

are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched *✓* Are the lubricating arrangements of the generators as per Rule *✓*

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

SPARE GEAR

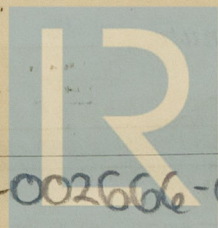
As per Rule requirements.

Ruston & Hornsby, Limited
 The foregoing is a correct description.

B. Coyle

Manufacturer.

Oil & Gas Engines Dept



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002659-002666-0166

Dates of Survey while building { During progress of work in shops - - 1937 Apr 22 May 6.20 Jun 19.22 Aug 12 Sep 20 1938 Jan 6.24 Feb 24.28 Mar 14
During erection on board vessel - - -
Total No. of visits 12

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

Connecting rods 14-12-37 Crank and Flywheel shaft 6-1-38 Intermediate shaft ✓

Crank and Flywheel shafts, Material Steel Identification Mark LLOYD'S - 3274 - 6-1-38 A.S.

Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case *yes*. If so, state name of vessel *Imv. Apt. 20393*.

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

This engine and compressor have 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 Newcastle on Tyne to the order of Messrs Hawthorn Leslie & Co. Ltd for fitting on board the vessel.

This engine has been efficiently installed on MV Daphneller examined under working conditions & found satisfactory.

L. Peskett ✓

1m. 9.28 - Transfer.
(The Surveyors are requested not to write on or below the space for Committee Minute.)

Request form attached Imv. Rpt 20393
9/2584/P. IV. 8432
- 37/10. 702

The amount of Fee ...

Travelling Expenses (if any) £

To be charged
in
Annual account
When received, 19...

W. H. H. Collinson for *J. D. H. Collinson* Self.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI 8 JUL 1938

See Mva. & C. 96399



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