

Rpt. 4c.

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 1167

Received at London Office **28 JAN 1954**

Date of writing Report 20.1.55 When handed in at Local Office 19 Port of Nottingham.

No. in Survey held at Lincoln Date, First Survey 15.12.54. Last Survey 30.12.54. 19  
Reg. Book.

Single ✓ on the Twin ✓ Triple ✓ Quadruple ✓ Screw vessel ✓ " **ISOCARDIA** " Number of Visits 3

to the order of: Chantier Et Ateliers de St. Nazaire. Vessel No. Q.15. Tons 150 Gross 150 Net 150

Owners Port belonging to

Oil Engines made at Lincoln. By whom made C1/63620/13/530095. B.4362. Ruston & Hornsby Ltd.. Contract No. 385954 When made 1954

Generators made at Bedford. By whom made W.H. Allen, Sons & Co. Ltd.. Contract No. E3/60700 When made 1954

No. of Sets 1 Engine Brake Horse Power 240 M.N. as per Rule 48 Total Capacity of Generators 150 Kilowatts.

Is Set intended for essential services ✓

**OIL ENGINES, &c.**—Type of Engines 4VEBZ. 2 or 4 stroke cycle 4 Single or double acting SA

Maximum pressure in cylinders 715 ± 3% Diameter of cylinders 10 1/2" Length of stroke 14 1/2" No. of cylinders 4 No. of cranks 4

Mean indicated pressure 100 Firing order in cylinders 1. 4. 3. 2. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 12.5 1/8

Is there a bearing between each crank Yes. GD<sup>2</sup> - 38.7 tons ft. 2

Flywheel dia. 4'-6" Weight 61 cwt. Means of ignition Compression. Kind of fuel used Diesel Oil.

Crank Shaft, dia. of journals 8" Crank pin dia. 6 1/4" Crank Webs 11" Mid. length breadth 3.7/16" Thickness parallel to axis —

Flywheel Shaft, diameter as per Rule. Intermediate Shafts, diameter as per Rule. General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) 4/8/55

Are means provided to prevent racing of the engine when declutched Yes. Means of lubrication — Kind of damper if fitted —

Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged with non-conducting material —

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

Lubricating Oil Pumps, No. and size One Engine driven 772 gals/hour.

Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —

Scavenging Air Pumps, No. — Diameter — Stroke — Driven by —

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

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 DP. CW. CR. Machine No. E3/60700.

Pressure of supply 187.5 volts. Full Load Current 514 Amperes. Direct or Alternating Current DC.

If alternating current system, state the periodicity — Has the Automatic Governor been tested and found as per Rule when full 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 — and do the results comply with the requirements —

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

Details of driven machinery other than generator —

**PLANS.**—Are approved plans forwarded herewith for Shafting 20.12.38. Receivers — Separate Tanks —  
(If not, state date of approval)

Have Torsional Vibration characteristics if applicable been approved 14.8.53. Armature shaft Drawing No. —  
(state date of approval)

**PAIRE GEAR** Supplied to Rule Requirements —

The foregoing is a correct description,

Ruston &amp; Hornsby, Limited

Y. Marshall



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Lloyd's Register Foundation

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Dates of Survey while building { During progress of work in shops - - 15.12.54. 12.7.54. 30.12.54.  
During erection on board vessel - -  
Total No. of visits 3.

Dates of Examination of principal parts - Cylinders 15.12.54. Covers As clys. Pistons - Piston rods -

Connecting rods as clys. & 12.7.54. Crank and Flywheel shafts As clys. Intermediate shafts -

Crank shaft { Material Steel. Tensile strength  
Elongation Identification Marks LL 11815. LE 6668.

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers

Is this machinery duplicate of a previous case. If so, state name of vessel.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This Engine has been built under Special Survey in accordance with the Approved Plans and the Rules of the Society, materials and workmanship being good.

On completion, the generating set was tested in the Shops under working conditions and the governing tested with satisfactory results.

The set has been forwarded for installation in the vessel.

Explosion relief device fitted on each crankcase door.

500.1.18-T. (MADE AND PRINTED IN ENGLAND)  
(The Surveyors are requested not to write on or below the space for Committee Minutes.)

The amount of Fee ... £ 19. : When applied for 20.1.55.19 C.20286. A/C. No. 8325.  
Travelling Expenses (if any) £ : When received 19.

FRIDAY 20 JAN 1956

Committee's Minute  
Assigned

