

# YACHT.

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

21537  
No. 8928

pt. 4c.

Received at London Office MAY 20 1937

Date of writing Report 14 May 1937 When handed in at Local Office 19 May 1937 Port of MANCHESTER  
 No. in Survey held at MANCHESTER Date, First Survey 9-2-1937 Last Survey MAY 14 1937  
 Reg. Book. 39224 Number of Visits 4

Built at Southampton on the Single Screw vessel "Yadorna" Tons { Gross 226.25 Net 143.23  
 By whom built J. I. THORNYCROFT & Co. Yard No. 1172 When built 1937

Owners G. & W. H. Maisegau Port belonging to Amsterdam  
 Oil Engines made at MANCHESTER By whom made L. GARDNER & SONS LTD ENGINE Contract No. 38599 When made 1937  
 Generators made at DURSLEY GLOS. By whom made MANDSLEYS LTD. GENERATOR Contract No. 1005562 When made 1937

No. of Sets ONE Engine Brake Horse Power 28.5 Nom. Horse Power as per Rule 8 Total Capacity of Generators 16 Kilowatts.

**OIL ENGINES, &c.** Type of Engines VERTICAL SOLID INJECTION 2 or 4 stroke cycle 4 Single or double acting SINGLE  
 Maximum pressure in cylinders 650 LBS. Diameter of cylinders 4 1/4" Length of stroke 6" No. of cylinders 3 No. of cranks 3  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 5 3/16" Is there a bearing between each crank YES

Revolutions per minute 1000 Flywheel dia. 26" Weight 511 LBS. Means of ignition COMPRESSION Kind of fuel used HEAVY OIL  
 Crank Shaft, dia. of journals as per Rule APPROVED Crank pin dia. 2.625" Crank Webs Mid. length breadth 4" Thickness parallel to axis SOLID  
 as fitted 2.625" Mid. length thickness 1 3/8" shrunk Thickness around eyehole SOLID

Flywheel Shaft, diameter as per Rule APPROVED Intermediate Shafts, diameter as per Rule APPROVED Thickness of cylinder liners APPROVED  
 as fitted APPROVED as fitted APPROVED as fitted APPROVED  
 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 Are the exhaust pipes and silencers water cooled or lagged with non-conducting material NO  
 Cooling Water Pumps, No. ONE Is the sea suction provided with an efficient strainer which can be cleared within the vessel NO  
 Lubricating Oil Pumps, No. and size TWO (ONE SPARE) 3/16" x 1/2" STROKE 28 GALL. PER HOUR

Air Compressors, No. ONE No. of stages TWO Diameters 4" > 1 3/4" Stroke 3" Driven by AUX. 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 —

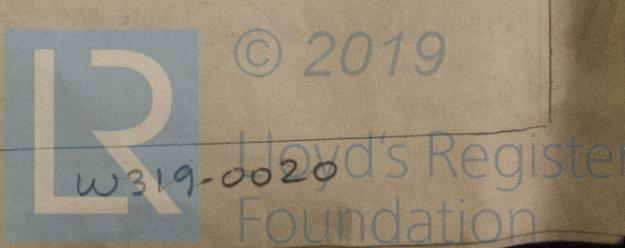
**ELECTRIC GENERATORS:** — Type —  
 Pressure of supply 110 volts. Full Load Current 145.5 Amperes. Direct or Alternating Current DIRECT  
 If alternating current system, state the periodicity — Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off YES  
 Generators, are they compounded as per rule — is an adjustable regulating resistance fitted in series with each —

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 —  
 If the generators are under 100 kw. full load rating, have the makers supplied certificates of test NO. SENT TO SOUTHAMPTON and do the results comply with the requirements —  
 If the generators are 100 kw. or over have they been built and tested under survey —

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

SHAFTING AS PER RULE REQUIREMENTS

The foregoing is a correct description.  
**L. GARDNER & SONS LD.**  
 William Gardner, Manufacturer.  
 Director.



under the  
 Register of Shipping  
 and will be  
 machinery has  
 conditions  
 Register of Shipping

11/6/37

Dates of Survey while building { During progress of work in shops - - } 9-2-37, 9-3-37, 3-3-37, 14-5-37.  
 { During erection on board vessel - - - }  
 { Total No. of visits } 4

Dates of Examination of principal parts—Cylinders 9-2-37, Covers 9-3-37, Pistons 30-3-37, Piston rods —  
 Connecting rods 30-3-37, Crank and Flywheel shaft 30-3-37, Intermediate shaft —  
 Crank and Flywheel shafts, Material STEEL, Identification Mark LLOYD'S REG. 74242, 11-3-37  
 Intermediate shafts, Material —, Identification Marks —

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 CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE OF A GOOD QUALITY AND THE ENGINE WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS SHOWN SATISFACTORY RESULTS. IN MY OPINION THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL, CLASSED WITH THIS SOCIETY, FOR THE PURPOSE INTENDED.

Satisfactorily fitted on board and tried under working conditions

1m.236.—Transfer. (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 4 : 4 : 0 | When applied for, 19-5-1937 | M.  
 Travelling Expenses (if any) £ : 4 : 0 | When received, 25<sup>th</sup> June 1937

*J. Mearns*  
 Surveyor to Lloyd's Register of Shipping.

TUE 7 SEP 1937

Committee's Minute  
 Assigned See above F.E. rpt

Rpt. No. **R**  
 Date of Reg. No. i Reg.  
 Built Own Elect Is the System Press Direc If alter Has in Gen are the Where series Are al short Posi is the if sit are the Earth their Main a fuse Swit are the wood are th perma with and is bars Main AG Inst Earth Swit Join