

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8972

Received at London Office JUL - 2 1937

Date of writing Report 24-6-37 When handed in at Local Office 1-7-37 Port of MANCHESTER  
No. in Survey held at FISHTON-U. LYNE. Date, First Survey JUNE 3, 1937 Last Survey JULY 1, 1937  
Reg. Book. Number of Visits 3

Single on the Twin Triple Quadruple } Screw vessel MATHESON Tons { Gross \_\_\_\_\_ Net \_\_\_\_\_  
Built at HONG KONG. By whom built 3673 mkn. Yard No. \_\_\_\_\_ When built \_\_\_\_\_

Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_  
Oil Engines made at FISHTON-U. LYNE. By whom made NATIONAL GAS & OIL ENG CO ENGINE Contract No. 50083. When made 1937  
Generators made at BIRMINGHAM. By whom made HIGGS & CO. GENERATOR Contract No. 159767 When made 1937  
No. of Sets ONE. Engine Brake Horse Power 18.5 Nom. Horse Power as per Rule 5.3. Total Capacity of Generators 7.9. 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 1/8" Length of stroke 6" No. of cylinders 2 No. of cranks 2  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 4 3/4" Is there a bearing between each crank YES  
Revolutions per minute 1000 Flywheel dia. 25" Weight 337 lbs. Means of ignition COMPRESSION. Kind of fuel used HEAVY OIL.  
Crank Shaft, dia. of journals as per Rule APPROVED. as fitted 2 3/8" Crank pin dia. 2 3/8" Crank Webs Mid. length breadth 3 1/4" Thickness parallel to axis SOLID.  
Mid. length thickness 1 5/16" shrunk Thickness around eyehole \_\_\_\_\_  
Flywheel Shaft, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Intermediate Shafts, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Thickness of cylinder liners 3/8"  
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 \_\_\_\_\_  
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 GEAR TYPE. 78. GALLS. P. HR.  
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 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 116 volts. Load 68. 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. \_\_\_\_\_  
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 YES

**PLANS.** Are approved plans forwarded herewith for Shafting YES (If not, state date of approval) Receivers \_\_\_\_\_ Separate Tanks 17.6.37.  
**SPARE GEAR.** AS PER RULE REQUIREMENTS.

The foregoing is a correct description,  
THE NATIONAL GAS AND OIL ENGINE Co. Limited,

A.B. Bamford JOINT MANAGING DIRECTOR.

Manufacturer.



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W1056-0033

Dates of Survey while building { During progress of work in shops - - } JUNE 3<sup>rd</sup> 9<sup>th</sup> July 1<sup>st</sup> 1937.  
 { During erection on board vessel - - - }  
 Total No. of visits 3

Dates of Examination of principal parts—Cylinders JUNE 3, 1937 Covers JUNE 3, 1937 Pistons 3-6-37 Piston rods —

Connecting rods 3-6-37 Crank and Flywheel shaft 9-6-37 Intermediate shaft —

Crank and Flywheel shafts, Material STEEL Identification Mark LLOYDS 7802 M.A.B. 4-6-37.

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.

The amount of Fee ... £ 4 : 4 : 0 } When applied for, 29-6-37 M.  
 Travelling Expenses (if any) £ 6 : 0 } When received, 12-8-37 8/18

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

Committee's Minute

TUE. 17 MAY 1938

Assigned

See Hvy. 768049



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