

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 11,402.

Received at London Office

3 SEP 1943  
15 MAR 1943

Date of writing Report 10 When handed in at Local Office 11. 3. 43 Port of MANCHESTER.

No. in Survey held at ASHTON-UNDER-LYNE Date, First Survey 27.8.42 Last Survey 18.1. 1943.  
Reg. Book. ASHTON-UNDER-LYNE Number of Visits Six.

Single  
on the Twin }  
Triple } Screw vessel  
Quadruple }

EMPIRE VICEROY.

Tons { Gross  
Net

Built at BARROW IN FURNESS. By whom built Vickers Armstongs Ltd. Yard No. 858 When built

Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_  
Oil Engines made at Ashton-u-Lyne By whom made National Gas & O.E.Co. Ltd. Engine No. 54038. When made 1943.  
Generators made at Birmingham. By whom made General Electric Co. Ltd. Generator No. 55861/3 When made 1942.

No. of Sets 1 Engine Brake Horse Power 300 Nom. Horse Power as per Rule 49 Total Capacity of Generators 180 Kilowatts.

## OIL ENGINES, &c.—Type of Engines Heavy Oil Engine Vertical. 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 800 lbs/sq" Diameter of cylinders 10" Length of stroke 13" No. of cylinders 5 No. of cranks 5

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 12.3/8" Is there a bearing between each crank Yes.

Revolutions per minute 550 Flywheel dia. 3'7" Weight 2600 lbs. Means of ignition Compression Kind of fuel used Diesel Oil.

Crank Shaft, dia. of journals as per Rule Approved. as fitted 7.25" Crank pin dia. 7" Mid. length breadth 2.15/16" Crank Webs shrunk Thickness parallel to axis -  
Mid. length thickness 8 1/2" Thickness around eyehole Solid.

Flywheel Shaft, diameter as per Rule Flywheel mounted on Crank-Intermediate Shafts, diameter as per Rule - as fitted shaft coupling. as fitted - Thickness of cylinder liners 13/16"

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes. Means of lubrication Forced Lubrication.

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

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

Lubricating Oil Pumps, No. and size One incorporated with Engine.

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 Compound wound, continuous rating, fan ventilated.

Pressure of supply 220 volts. Full Load Current 820 Amperes. Direct or Alternating Current D.C.

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 Yes. is an adjustable regulating resistance fitted in series with each shunt field -

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.

PLANS. Are approved plans forwarded herewith for Shafting 6.1.42. Receivers - Separate Tanks -  
(If not, state date of approval)

SPARE GEAR AS PER RULE REQUIREMENTS. ✓

The foregoing is a correct description,

THE NATIONAL GAS AND OIL ENGINE Co. Ltd.

*[Signature]*

Manufacturer.



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Lloyd's Register Foundation

012019-012026-0245

*[Handwritten initials]*  
*[Handwritten date]*

Dates of Survey while building  
 During progress of work in shops - - 27.8.42, 4.9.42, 21.9.42, 9.10.42, 15.1.43, 18.1.43.  
 During erection on board vessel - - -  
 Total No. of visits 6

Dates of Examination of principal parts—Cylinders 21.9.42. Covers 9.10.42. Pistons 18.1.43. Piston rods -  
 Connecting rods 18.1.43. Crank and Flywheel shafts 27.8.42. Intermediate shafts -  
 Crank and Flywheel shafts, Material S.M. Steel. Identification Marks Engine No. 54038.  
 LLOYD'S 1218 - DRW - 27.8.42.  
 Intermediate shafts, Material - Identification Marks -  
 Identification marks on Air Receivers -

Is this machinery duplicate of a previous case Yes.  If so, state name of vessel See Engine No. 54037 for same vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) THIS ENGINE HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND THE RULE REQUIREMENTS. THE WORKMANSHIP AND MATERIALS ARE GOOD AND THE ENGINE, WHEN TESTED IN THE SHOP UNDER FULL LOAD CONDITIONS, GAVE 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.*  
*Edley J. H. [Signature]*  
 Barrow.

SEE MANCHESTER RPT. NO. 11,403.  
 The amount of Fee ... £ : : When applied for, ..... 19.....  
 Travelling Expenses (if any) £ : : When received, ..... 19.....

*E. Knowles, for self & D.R. Walburn.*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 14 SEP 1943

Assigned see minute on Rev. J. G. Rpt.



Im. 1, 37.—Transfer. (MADE IN ENGLAND.)  
 (The Surveyors are requested not to write on or below the space for Committee Minute.)