

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 11,403

15 MAR 1943

Date of writing Report

19

When handed in at Local Office

11. 3.

19 43 Port of

Received at London Office

MANCHESTER.

3 SEP 1943

No. in Survey held at

ASHTON-UNDER-LYNE.

Date, First Survey

27.8. 42.

Last Survey

16. 2.

19 43.

Reg. Book.

Number of Visits

12.

 Single  
on the Twin  
Triple  
Quadruple  
Screw vessel

EMPIRE VICE ROY.

 Tons { Gross  
Net

Built at BARROW ON FURNESS.

By whom built Vickers Armstrongs Ltd.

Yard No. 858

When built

Owners

Port belonging to

Oil Engines made at Ashton-u-Lyne.

By whom made National Gas &amp; O.E.Co.Ld.

Engine

Generator

No. 54039.

When made 1943.

Generators made at Birmingham.

By whom made General Electric Co.Ltd.

Generator

No. 55861/1

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

Maximum pressure in cylinder 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" Crank Webs Mid. length breadth 2.15/16" Mid. length thickness 8 1/2" Thickness parallel to axis - Thickness around eyehole Solid.

Flywheel Shaft, diameter as per Rule Flywheel mounted on Crank-shaft coupling. Intermediate Shafts, diameter as per Rule - 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.

Cooling Water Pumps, No. One incorporated 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 -

IR 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.

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

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.

TANKS. Are approved plans forwarded herewith for Shafting 6.1.42. Receivers - Separate Tanks -

GEAR AS PER RULE REQUIREMENTS.

The foregoing is a correct description,

THE NATIONAL GAS AND OIL ENGINE Co. Ltd.

Manufacturer.



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012019-012026-0243



Dates of Survey while building { During progress of work in shops - - 1942. Aug.27. Sept.14, 18. Oct.20. Nov.4, 11, 19, 26. Dec.5. 1943. Feb. 1944. }  
{ During erection on board vessel - - - }  
Total No. of visits 12.

Dates of Examination of principal parts—Cylinders 16.2.43. Covers 16.2.43. Pistons 16.2.43. Piston rods -

Connecting rods 14.9.42. Crank and Flywheel shafts 16.2.43. Intermediate shafts -

Crank and Flywheel shafts, Material O.H. Steel. Identification Marks LLOYD'S 1289 DRW 27.8.42.

Intermediate shafts, Material - Identification Marks -

Identification marks on Air Receivers 28785/6.  
LLOYD'S TEST 700 lbs/sq.in. (See Secretary's letter of 11th Jan. 1943).  
FH.26.2.43.

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 GOOD AND THE ENGINE WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS SHEWED 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  
*[Signature]*  
Barrow.

To cover Engine N<sup>o</sup> 54037, 8 + 9.  
The amount of Fee £ 26 : 5 :  
Travelling Expenses (if any) £ 2 : 5 :  
When applied for, 11-3-1943.  
When received, 19.....

*[Signature]*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 14 SEP 1943

Assigned

See minute  
on Rev F.E. Rpt.



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