

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 10,158

Received at London Office

ALIC 21 1940

Date of writing Report 11<sup>th</sup> Aug. 1940 When handed in at Local Office 19<sup>th</sup> Aug. 1940 Port of MANCHESTER  
No. in Survey held at ASHTON-U. LYNE Date, First Survey 1<sup>st</sup> July, 1940 Last Survey 11<sup>th</sup> Aug. 1940.  
Reg. Book. Number of Visits 3.

on the Single Screw vessel  
Twin  
Triple  
Quadruple  
Built at \_\_\_\_\_ By whom built \_\_\_\_\_ Yard No. \_\_\_\_\_ When built \_\_\_\_\_

Owners INDO-CHINA STEAM NAVIGATION CO. Port belonging to \_\_\_\_\_  
Oil Engines made at ASHTON-U. LYNE By whom made NATIONAL GAS & OIL ENG. CO ENGINE Contract No. 53163 When made 1940  
Generators made at BRADFORD. By whom made ENGLISH ELECTRIC CO. GENERATOR Contract No. 5K4947 When made 1940.  
No. of Sets ONE Engine Brake Horse Power 37. Nom. Horse Power as per Rule 10.5 Total Capacity of Generators 17.5 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 750 LBS/SQ IN Diameter of cylinders 4 1/25" Length of stroke 6" No. of cylinders 4 No. of cranks 4.  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 4 25/32" 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. Crank pin dia. 2 3/8" Mid. length breadth 3 1/4" Thickness parallel to axis SOLID.  
as fitted 2 3/8" Crank Webs Mid. length thickness 1 5/16" shrunk Thickness around eye-hole \_\_\_\_\_  
Flywheel Shaft, diameter as per Rule \_\_\_\_\_ Intermediate Shafts, diameter as per Rule \_\_\_\_\_ Thickness of cylinder liners 3/8"  
as fitted \_\_\_\_\_ as fitted \_\_\_\_\_  
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 APPROX. 65 GALLS PER HOUR  
Air Compressors, No. ONE No. of stages 2. Diameters 1 3/4" + 4" Stroke 3" Driven by AVT ENGINE  
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 \_\_\_\_\_  
Pressure of supply 220 volts. Full Load Current 79.5 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 YES 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.  
If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test Not received and do the results comply with the requirements \_\_\_\_\_  
If the generators are 100 kw. or over have they been built and tested under survey \_\_\_\_\_

**PLANS.** Are approved plans forwarded herewith for Shafting YES Receivers \_\_\_\_\_ Separate Tanks YES  
(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.

A. K. Cowell

Manufacturer.



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Lloyd's Register Foundation

4.c

N<sup>o</sup> 10158

Dates of Survey while building  
During progress of work in shops - -  
During erection on board vessel - - -  
Total No. of visits

1940. July. 1. 4. Aug 11.

3.

Dates of Examination of principal parts—Cylinders 1.7.40 Covers 4.7.40 Pistons 1.7.40 Piston rods —  
Connecting rods 1.7.40 Crank and Flywheel shafts 1.7.40 Intermediate shafts —  
Crank and Flywheel shafts, Material O.H. INgot STEEL Identification Marks LLOYDS / 20. WTH. 31.5.40  
Intermediate shafts, 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 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.

Im. 11.37.—Transfer. (MADE IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 5 : 5 : 0 } When applied for, 17.8.40 J.M.  
Travelling Expenses (if any) £ : 5 : 0 } When received, 19.....

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

Committee's Minute  
Assigned

FRI. 12 SEP 1941  
See Hkg JE 8793