

Rpt. 4c  
CEIVED

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 482

Date of writing Report 3 MAY 1949 19 When handed in at Local Office 19 Port of NOTTINGHAM. Received at London Office 11 MAY 1949

N.D.O. Survey held at Lincoln. Date, First Survey Last Survey 19  
Reg. Book. 91776 on the Single or the Twin Triple or Quadruple Screw vessel. M.V. LATIUS Number of Visits

Built at Newcastle. By whom built Hawthorn Leslie. Eng. No. 699. Yard No. 4060. When built 1949.  
Owners THE ANGLO SAXON PETROLEUM CO. LTD. Port belonging to LONDON

Oil Engines made at Lincoln. By whom made Ruston & Hornsby Ltd. Contract No. 4975/12/470331. When made 1949.  
Generators made at Sunderland. By whom made Sunderland Forge & Eng. Co. Ltd. Contract No. When made

No. of Sets 1 Engine Brake Horse Power 54 M.N. as per Rule 13.5 Total Capacity of Generators 30 Kilowatts.

Is Set intended for essential services

OIL ENGINES, &c.—Type of Engines 4VPHZ. Engine No. 269988. 2 or 4 stroke cycle 4 Single or double acting SA  
Maximum pressure in cylinders 1000 lbs. Diameter of cylinders 5.3/8" Length of stroke 8" No. of cylinders 4 No. of cranks 4  
Mean indicated pressure 109 lbs. Firing order in cylinders 1-3-4-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6.25/32"  
Is there a bearing between each crank Yes. Weight of flywheel 2240 lbs. Revolutions per minute 675  
Flywheel dia. 2'8" Weight 510 lbs. Means of ignition Compression Kind of fuel used Diesel Oil  
Crank Shaft, dia. of journals as per Rule 4.3/16" Crank pin dia. 3 1/4" Mid. length breadth 5 3/4" Thickness parallel to axis -  
as fitted 4.3/16" Crank Webs Mid. length thickness 1 3/4" shrunk Thickness round eyehole -  
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>)  
as fitted Are means provided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted -  
Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material -  
Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel -  
Lubricating Oil Pumps, No. and size one, 376 gals. per hour. Engine driven.  
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 Canopy, cont. rating No. 40762.  
Pressure of supply 110 volts. Full Load Current 273 Amperes. Direct or Alternating Current D.C.  
If 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 shunt field Yes  
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 Yes and do the results comply with the requirements Yes  
If the generators are 100 kw. or over have they been built and tested under survey -

Details of driven machinery other than generator Through clutch. Air Compressor. Reavell No. 108506. circulating pump.  
PLANS.—Are approved plans forwarded herewith for Shafting Standard Approved. Receivers Hamworthy No. 66889.  
(If not, state date of approval) Separate Tanks  
Have Torsional Vibration characteristics if applicable been approved Not applicable. Armature shaft Drawing No.

SPARE GEAR To Rule Requirements.

The foregoing is a correct description,  
Ruston & Hornsby Limited,  
Manufacturer.  
J. Reeves  
Engineering Divn.



003581-003590-0094

Dates of Survey while building { During progress of work in shops - - } 25.10.48. 2.3.49.  
 { During erection on board vessel - - }  
 Total No. of visits 2

Dates of Examination of principal parts—Cylinders 25.10.48. Covers 25.10.48. Pistons 25.10.48. Piston rods -  
 Connecting rods 25.10.48. Crank and Flywheel shafts 25.10.48. Intermediate shafts

Crank shaft { Material S.M. Steel. Tensile strength  
 Elongation Identification Marks LL. 1136. TDS. RD. 6303.  
 Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers

Is this machinery duplicate of a previous case Yes. If so, state name of vessel Standard Type.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This engine has been built under special survey, in accordance with Approved Plans and Regulations of Society, material and workmanship being good.

On completion the set was tried in the Shops under working conditions and found satisfactory.

The set has been forwarded to Newcastle for installation on board the vessel.

**SURVEY OF MACHINERY.**  
 NEWCASTLE-ON-TYNE.

FIRST SURVEY 31/10/47 LAST SURVEY 28/6/49  
 No. OF VISITS 103

*Installed in M/Y "LATIRUS" ENG. No 4060 *Abwler**

SURVEYOR TO LLOYD'S REGISTER.  
 NEWCASTLE-ON-TYNE.

501.4.18.-T. (MADE AND PRINTED IN ENGLAND)  
 (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 4 : 0 : 0 { When applied for 20/5/ 19 49  
 Travelling Expenses (if any) £ : : { When received 19

Committee's Minute 12 AUG 1948  
 Assigned *Sa F.F. Welch, opt.*

*W. Deeth*  
 Surveyor to Lloyd's Register of Shipping.

