

RECEIVED

MAY 1949  
Rpt. 4c.  
D.O.

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 118267

Received at London Office

Date of writing Report 24 May 1949 When handed in at Local Office 25 May 1949 Port of London

No. in Survey held at London Date, First Survey 28-4-49 Last Survey 11-5-49 Number of Visits 3

Single on the Twin Triple Quadruple Screw vessel Tons Gross Net

Built at By whom built Yard No. When built

Owners Port belonging to

Oil Engines made at Dagenham By whom made Russell Newbery & Co. Ltd. Eng. No. 4426 Contract No. D2200 When made 1949

Generators made at By whom made Contract No. When made

No. of Sets 1 Engine Brake Horse Power 66 M.N. as per Rule Total Capacity of Generators Kilowatts

Is Set intended for essential services

OIL ENGINES, &c.—Type of Engines High speed Compression ignition 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 850 lb/sq. in. Diameter of cylinders 5 1/8" Length of stroke 7 1/4" No. of cylinders 4 No. of cranks 4

Mean indicated pressure 105 Firing order in cylinders 1342 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 3/8"

Is there a bearing between each crank Yes Moment of inertia of flywheel 665.64 lb. sq. in. (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) Revolutions per minute 1000

Flywheel dia. 28" Weight 5.35 lbs Means of ignition Solid Kind of fuel used Pool

Crank Shaft, dia. of journals as per Rule 3 3/4" as fitted Crank pin dia. 3 5/8" Crank Webs Mid. length breadth 4 5/8" Mid. length thickness 1.55" Thickness parallel to axis one Thickness round eye-hole pure

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>)

Are means provided to prevent racing of the engine when declutched Yes Means of lubrication forced Kind of damper if fitted none

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. 1 Centrifugal Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 1 gear type 3/4 engine speed 3.6 gal/min

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 41461

Pressure of supply 110 volts Full Load Current 218 Amperes Direct or Alternating Current

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 Generators, are they compounded as per Rule 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

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

Details of driven machinery other than generator

PLANS.—Are approved plans forwarded herewith for Shafting Receivers Separate Tanks

Have Torsional Vibration characteristics if applicable been approved Armature shaft Drawing No.

SHAFTING GEAR makers supply covering Rule Requirements

The foregoing is a correct description,

A. P. R.

Manufacturer.

FOR & ON BEHALF OF RUSSELL NEWBERY & CO. LTD.



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Dates of Survey while building  
 During progress of work in shops - - - 28<sup>th</sup> April 4<sup>th</sup> 11<sup>th</sup> May 1949  
 During erection on board vessel - - -  
 Total No. of visits 3 in shops  
 Dates of Examination of principal parts—Cylinders 28-4-49 Covers 28-4-49 Pistons 28-4-49 Piston rods ✓  
 Connecting rods 28-4-49 Crank and Flywheel shafts 28-4-49 Intermediate shafts ✓  
 Crank shaft Material EN8 Tensile strength 40 Ton  
 Elongation 22% Identification Marks LLOYDS/12-4-49 2R1941 6031 E  
 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.

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

This engine has been built under Special Survey of listed materials  
 the workmanship is good. The engine was examined during  
 erection and under full load conditions, governor trials carried out

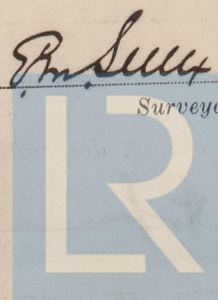
The engine is directly coupled to one Sunderland Forge 35KW  
 generator no 41461, both secured to fabricated steel underbase.  
 Engine air started by Williams & James air motor  
 The engine is to the order of Sunderland Forge & Eng Co Ltd no 28600/1  
 25.2.48 (for 3 sets)

201.8.47.-T. (MADE AND PRINTED IN ENGLAND)

The amount of Fee ... £ 4 : 0 : 0 When applied for 25 May 1949  
 Travelling Expenses (if any) £ : : When received 19

Committee's Minute

Assigned *No Action*



Surveyor to Lloyd's Register of Shipping.

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