

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 16715

Date of writing Report 17th Sept 47 When handed in at Local Office 22nd Jan 1948 Received at London Office 30 SEP 1947
No. in Reg. Book. Survey held at Dursley, Glos. SOUTHAMPTON Date, First Survey 3-9-47 Last Survey 10-12-47
on the Twin Triple Quadruple Screw vessel S. EL MALEK FOAD Number of Visits 3+4
Built at SOUTHAMPTON By whom built JOHN I. THORNYCROFT & CO. LTD Yard No. 4108 When built 1947-12
Owners KHEDIVIAL MAIL LINE S.A.E. Port belonging to ALEXANDRIA Engine No. 60/29280
Oil Engines made at Dursley By whom made R.A. Lister (Marine Sales) Ltd. When made 1947
Generators made at By whom made MAWDSLEY'S LTD Contract No. 12058469 When made 1947
No. of Sets Engine Brake Horse Power 38 M.N. as per Rule Total Capacity of Generator 2.5 Kilowatts
Is Set intended for essential services YES

OIL ENGINES, &c.—Type of Engines Heavy Oil, Airless Injection

Maximum pressure in cylinders 800 lbs Diameter of cylinders 4 1/2" Length of stroke 5 1/2" No. of cylinders 4 No. of cranks 4
Mean indicated pressure Firing order in cylinders Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 14.5/16"
Is there a bearing between each crank No. 2 Moment of inertia of flywheel (16 m² or Kg.-cm.²) 1100
Flywheel dia. 26" Weight 301 lbs Means of ignition Compression Kind of fuel used Heavy oil
Crank Shaft, dia. of journals as per Rule Crank pin dia. as per Rule Mid. length breadth 4 1/2" Thickness parallel to axis 1 1/2"
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted General armature, moment of inertia (16 m² or Kg.-cm.²) 1100
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 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

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

Pressure of supply volts Full Load Current 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 (state date of approval) Armature shaft Drawing No.

SPARE GEAR In accordance with Rules requirements

The foregoing is a correct description,

R. A. LISTER (MARINE SALES) LTD.

Manufacturer.



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009192-009199-0027

During progress of work in shops - - 17.12.46 23.5.47 11.8.47
Dates of Survey while building During erection on board vessel - - -
Total No. of visits 3
Dates of Examination of principal parts - Cylinders 23.5.47 Covers 23.5.47 Pistons 23.5.47 Piston rods
Connecting rods 23.5.47 Crank and Flywheel shafts 17.12.46 Intermediate shafts
Crank shaft Material Steel Tensile strength 56.4 tons
Elongation 23% Identification Marks Lloyd's 98
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 Auxiliary Oil Engine has been built under Special Survey. Water jackets tested with hydraulic pressure 100 lbs. per sq. inch and found sound and tight. The workmanship and materials have been found good. Crankshaft taken from maker's stock, test pieces proved satisfactory. After assembly the engine examined during a full load test bed running trial of several hours duration; governor tried and found satisfactory.

Identification Marks M1716 Engine made to the order of Messrs. John I. Thornycroft.

SOUTHAMPTON:-

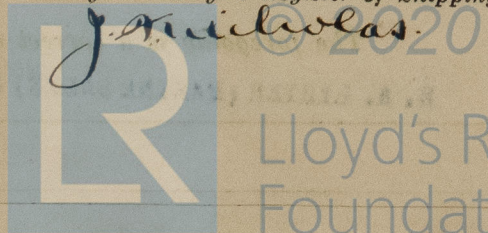
This engine coupled to generator No 120 S 8469, made by Messrs. Harland & Wolff Ltd has been securely fitted on board vessel on the starboard after end of the 1st platform. On completion of installing the engine & generator tried under full working conditions with satisfactory results. Generator 25 K.W.
This engine & generator are eligible in my opinion to be classed with the rest of vessel's machinery and to have the record of S L M C 12.47.

The amount of Fee ... £ : : When applied for 19
Travelling Expenses (if any) £ : : When received 19

Committee's Minute

Assigned See F.E. Michy. opt.

J. Brooke Smith
Surveyor to Lloyd's Register of Shipping.



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