

RECEIVED

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RD.G.

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 17362

1 JUN 1949

Received at London Office

Date of writing Report 16th June 49 When handed in at Local Office 19 Port of BRISTOL

No. in Survey held at Dursley Date, First Survey 11th May Last Survey 15th June, 19 49  
Reg. Book.

on the Single Screw vessel M.V. "Balmoral" Number of Visits 2  
Triple  
Quadruple

Built at By whom built Yard No. When built

Owners Port belonging to

Oil Engines made at Dursley By whom made R.A. Lister (Marine Sales) Ltd. Engine No. 71/54276 When made 1949

Generators made at By whom made Contract No. When made

No. of Sets Engine Brake Horse Power 53 M.N. as per Rule Total Capacity of Generators Kilowatts.

Is Set intended for essential services

**OIL ENGINES, &c.**—Type of Engines Heavy Oil, Airless Injection 616 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 800lbs Diameter of cylinders 4 1/8" Length of stroke 5 1/2" No. of cylinders 6 No. of cranks 6

Mean indicated pressure Firing order in cylinders Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 12.5/16"

Is there a bearing between each crank No Moment of inertia of flywheel (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) Revolutions per minute 1000

Flywheel dia. 20 1/2" Weight 250lbs Means of ignition compression Kind of fuel used heavy oil

Crank Shaft, dia. of journals as per Rule Crank pin dia. 3" Crank Webs Mid. length breadth 4 1/4" Thickness parallel to axis shrunk  
as fitted 3" Mid. length thickness 2" Thickness round eye hole

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 Are the exhaust pipes and silencers water cooled Yes

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

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  
(If not, state date of approval)

Have Torsional Vibration characteristics if applicable been approved Armature shaft Drawing No.  
(state date of approval)

**SPARE GEAR**

The foregoing is a correct description,

P. P. R. A. LISTER (MARINE SALES) LTD. Manufacturer.



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Lloyd's Register Foundation

014935-014945-0279



Dates of Survey while building { During progress of work in shops - - 11.5.49 15.6.49  
During erection on board vessel - -  
Total No. of visits 2

Dates of Examination of principal parts—Cylinders 11.5.49 Covers 11.5.49 Pistons 11.5.49 Piston rods

Connecting rods 11.5.49 Crank and Flywheel shafts 8.1.45 Intermediate shafts

Crank shaft { Material Steel Tensile strength 46 tons  
Elongation 28% Identification Marks Lloyd's V392

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 square inch and found sound and tight. The workmanship and materials have been found good. Crankshaft taken from Makers' tested stock. After assembly the engine examined during a full load test bed running trial of several hours duration; governor tried and found satisfactory.

Identification Mark M.3145 Engine made to the order of Messrs. John Thornycroft & Co., Ltd

500.4.45.—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 19  
Travelling Expenses (if any) £ 1 : 0 : 0 When received 19

Committee's Minute  
Assigned In minute see J.E. Roper  
FRI, 13 JAN 1950

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

