

EMVED

JUL 1949

Rpt. 4c.
D.O.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 17363

24 JUN 1949

Date of writing Report 16th June 1949 When handed in at Local Office 19 Port of BRISTOL Received at London Office 15 DEC 1949

No. in Survey held at Dursley Date, First Survey 11th May Last Survey 15th June, 1949
Reg. Book. Number of Visits 2

on the Single Screw vessel M.V. Balmoral Tons { Gross.....
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. 71/54277 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 1/2" 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 m² or Kg.-cm.²)..... Revolutions per minute 1000

Flywheel dia. 20 3/4" Weight 250lbs Means of ignition compression Kind of fuel used heavy oil

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

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m² or Kg.-cm.²).....
as fitted..... 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.



014935 - 014945 - 0280

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 _____ Pistons 11.5.49 Piston rods _____

Connecting rods 11.5.49 Crank and Flywheel shafts 8.11.45 Intermediate shafts _____

Crank shaft { Material Steel Tensile strength 45 tons
 { Elongation 28% Identification Marks Lloyd's V420

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.3146 ^(F)/₍₃₎ Engine made to the order of Messrs. John Thornycroft & Co., Ltd.

The amount of Fee ... £ 4 : 0 : 0 { When applied for 19
 Travelling Expenses (if any) £ 1 : 0 : 0 { When received 19

FRI. 19 JAN 1950

Committee's Minute _____

Assigned For use by J.E. Rife _____

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



Lloyd's Register Foundation