

EMERGENCY.

4c.

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 103900

Received at London Office - 4 JAN 1937

JUL 21 1937

Writing Report 28 Dec 1936 When handed in at Local Office - 4 JAN 1937 Port of London

Survey held at Bedford. Date, First Survey 12 June 1936 Last Survey 27 Nov. 1936. Number of Visits 6

on the Single  
Twin  
Triple  
Quadruple Screw vesselTons { Gross  
Net

at Barrow By whom built Vickers Armstrong Ltd. Yard No. 712 When built 1936.

ers Orient Steam Navigation Co. Ltd. Port belonging to

Engines made at Bedford. By whom made W. H. Allen Sons &amp; Co. Ltd. Contract No. K1/57547. When made 1936.

rators made at do By whom made do Contract No. E1/57549. When made 1936.

of Sets 1 Engine Brake Horse Power 133 Nom. Horse Power as per Rule 38 Total Capacity of Generators 90 Kilowatts.

ENGINES, &amp;c. Type of Engines Heavy oil Airless injection (6.527) 2 or 4 stroke cycle 4 Single or double acting single

max pressure in cylinders 650 Diameter of cylinders 200 mm Length of stroke 275 mm No. of cylinders 6 No. of cranks 6

of bearings, adjacent to the Crank, measured from inner edge to inner edge 228 mm Is there a bearing between each crank yes

utions per minute 500 Flywheel dia. 1220 Weight 1700 Means of ignition Compression Kind of fuel used Heavy oil

k Shaft, dia. of journals as per Rule 111 mm as fitted 130 mm Crank pin dia. 130 mm Crank Webs Mid. length breadth 182 mm Thickness parallel to axis 1/2 shrunk Mid. length thickness 50 mm Thickness around eyehole 1/2

heel Shaft, diameter as per Rule 111 mm as fitted Crank shaft Intermediate Shafts, diameter as per Rule 111 mm as fitted 130 mm Thickness of cylinder liners 1/2

governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication Forced.

he cylinders fitted with safety valves no Are the exhaust pipes and silencers water cooled or lagged with non-conducting material 1/2

ing Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel 1/2

icating Oil Pumps, No. and size one. 9 gals per minute.

ompressors, No. 1 No. of stages 1 Diameters 1/2 Stroke 1/2 Driven by 1/2

enging Air Pumps, No. 1 Diameter 1/2 Stroke 1/2 Driven by 1/2

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes

he internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces 1/2

re a drain arrangement fitted at the lowest part of each receiver yes

Pressure Air Receivers, No. 1 Cubic capacity of each 1/2 Internal diameter 1/2 thickness 1/2

ess, lap welded or riveted longitudinal joint 1/2 Material 1/2 Range of tensile strength 1/2 Working pressure by Rules 1/2

ing Air Receivers, No. 2 Total cubic capacity 12 cu ft. Internal diameter 13 7/8 thickness 6 1/8

ess, lap welded or riveted longitudinal joint DR. lap Material Steel Range of tensile strength 26/30 tons Working pressure by Rules 360 lbs sq in

CTRIC GENERATORS:—Type Open with Canopy.

sure of supply 220 volts. Full Load Current 410 Amperes. Direct or Alternating Current Direct

ernating current system, state the periodicity 1/2 Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off yes

rators, are they compounded as per rule 1/2 is an adjustable regulating resistance fitted in series with each

field yes Are all terminals accessible, clearly marked, and furnished with sockets yes

ey 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

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

generators are 100 kw. or over have they been built and tested under survey yes.

NS. Are approved plans forwarded herewith for Shafting 23. 11. 31 Receivers 23. 7. 34 Separate Tanks 1/2

RE GEAR Complete set of valves and springs for one cylinder. 3 fuel injection nozzles; 1 set of rings for one piston; 1 set studs &amp; nuts for one cylinder cover; 2 bottom end bolts; 2 main bearing bolts; one fuel pump.

The foregoing is a correct description,

W. H. ALLEN SONS &amp; Co., Ltd.

Manufacturer.

H. A. Clarke.



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W204-0092



Dates of Survey while building { During progress of work in shops - - } 1936 June 12. Sept. 14. 17. 18. Oct. 29. Nov. 27.  
{ During erection on board vessel - - - }  
Total No. of visits

Dates of Examination of principal parts—Cylinders 14. 17. Sept. 36. Covers 14. 17. Pistons 14. 9. 36. Piston rods 18. 10. 36.

Connecting rods 18. 10. 36

Crank and Flywheel shaft 12. 6. 36

Intermediate shaft ✓

Crank and Flywheel shafts, Material

Steel

Identification Mark LLOYD'S MAR. & C. AF. 12. 6. 36.

Intermediate shafts, Material ✓

Identification Marks ✓

Is this machinery duplicate of a previous case? *yes* If so, state name of vessel *Orion*

General Remarks (State quality of workmanship, opinions as to class, &c.) The emergency generator set has been constructed under special survey. The materials have been made at an approved Works & tested in accordance with the requirements of the Rules. The workmanship is good & on completion the unit was tested at full power, 10% overload governing and insulation tests were witnessed & found in order. The generator has now been dispatched to Barrow for fitting on board.

The amount of Fee ... £ 6-6-0

When applied for, -4 JAN 1937

Travelling Expenses (if any) £ 2-16-0

When received, 4/3/37

Committee's Minute

TUE. 27 JUL 1937

Assigned

See Brev 2662

*A. H. Gamett*  
Surveyor to Lloyd's Register of Shipping.



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