

DEC 8 1937

No. 104623

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## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Received at London Office - 5 JUL 1937

Writing Report 26 June 37 When handed in at Local Office 5 JUL 1937 Port of London  
 Survey held at Bedford. Date, First Survey 12 March 1937 Last Survey 18 June 1937  
 Number of Visits 8  
 on the Single Screw vessel M.V. 'SAINT EUNAN' Tons { Gross 436  
Double { Net 190  
 at Glasgow By whom built Aitch S.B. Co. Ltd. Yard No. 160 When built 1937  
Robert Harper & Sons Port belonging to Glasgow  
 Engines made at Bedford By whom made W.H. Allen & Co. Ltd. Contract No. K1/65488 When made 1937  
 Generators made at do By whom made do. Contract No. E1/65489 When made 1937  
 of Sets 1 Engine Brake Horse Power 62 Nom. Horse Power as per Rule 18 Total Capacity of Generators 40 Kilowatts.

ENGINES, &c.—Type of Engines Airless Injection 2 or 4 stroke cycle 4 Single or double acting single  
 Maximum pressure in cylinders 700 lb/sq. in. Diameter of cylinders 14.5 in. Length of stroke 180 in. No. of cylinders 5 No. of cranks 6  
 No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 16.4 in. Is there a bearing between each crank yes  
 Revolutions per minute 750 Flywheel dia. 790 in. Weight 610 lb Means of ignition Compression Kind of fuel used Heavy oil  
 Crank Shaft, dia. of journals as per Rule 100 in. Crank pin dia. 90 in. Mid. length breadth 134 in. Thickness parallel to axis shrunk  
 as fitted 100 in. Crank Webs Mid. length thickness 36 in. Thickness around eyehole shrunk  
 Main Wheel Shaft, diameter as per Rule Crack shaft Intermediate Shafts, diameter as per Rule shrunk Thickness of cylinder liners 8 in.  
 as fitted Crack shaft as fitted shrunk  
 Is there a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication Zones.  
 Are the cylinders fitted with safety valves no Are the exhaust pipes and silencers water cooled or lagged with non-conducting material no  
 Working Water Pumps, No. no Is the sea suction provided with an efficient strainer which can be cleared within the vessel no  
 Lubricating Oil Pumps, No. and size no  
 Compressors, No. no No. of stages no Diameters no Stroke no Driven by no  
 Sucking Air Pumps, No. no Diameter no Stroke no Driven by no

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

Are the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces no

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

High Pressure Air Receivers, No. no Cubic capacity of each no Internal diameter no Thickness no

Seamless, lap welded or riveted longitudinal joint yes Material steel Range of tensile strength 26/30 Working pressure by Rules no

Starting Air Receivers, No. one Total cubic capacity 2.75 cu. ft. Internal diameter 9 7/8 in. Thickness 5/16 in.

Seamless, lap welded or riveted longitudinal joint seamless Material steel Range of tensile strength 26/30 Working pressure by Rules no

ELECTRIC GENERATORS:—Type Enclosed Vent

Pressure of supply 220 volts. Full Load Current 182 Amperes. Direct or Alternating Current Direct

If alternating current system, state the periodicity yes Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off yes

Generators, are they compounded as per rule yes Is there an adjustable regulating resistance fitted in series with each yes

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

Are they 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

If the 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

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

PLANS. Are approved plans forwarded herewith for Shafting 24. 8. 33. Receivers yes Separate Tanks yes

SPARE GEAR Complete set of valves for 1 cylinder; 3 injection nozzles;  
 1 set of piston rings; 1 set of cylinder studs; complete connecting rod;  
 1 gudgeon pin; 2 bolts for main bearings; 1 fuel pump; 1 injection  
 fuel pipe; 2 brush holders; 1 set of brushes etc.

The foregoing is a correct description.

W. H. ALLEN, SONS & CO., LTD., Manufacturer.

H. H. Clarke.

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Dates of Survey while building { During progress of work in shops - - } 1937. March 12. April 27. 28. May 17. 14. 25. June 10 18.  
{ During erection on board vessel - - - }  
Total No. of visits NINE. (In Shops)

Dates of Examination of principal parts—Cylinders 10.6.37 Covers 7.5.37 Pistons 7.5.37 Piston rods 12.3.37  
Connecting rods 12.3.37 Crank and Flywheel shaft 14.4.37 Intermediate shaft ✓

Crank and Flywheel shafts, Material Steel.  
Intermediate shafts, Material ✓ Identification Mark LLOYD'S 7598. H.A.C. 14.4.37. H.A.B. 7.4.37.  
Identification Marks ✓

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓  
General Remarks (State quality of workmanship, opinions as to class, &c.)

This electric generating set has been constructed under Special Survey in accordance with the requirements of the Rules & approved plans. The materials have been made at Works approved by the Committee & the workmanship is good. Full & overload tests were carried out with satisfactory results. The Generator has now been dispatched to Glasgow for fitting on board.

The amount of Fee ... £5.5-0: When applied for, 5 JUL 1937

Travelling Expenses (if any) 3:0:6 When received, 7.9.37

Committee's Minute GLASGOW 7-DEC 1937

Assigned SEE ACCOMPANYING MACHINERY REPORT.

M. H. Garnett  
Surveyor to Lloyd's Register of Shipping.



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Foundation