

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 107086

Received at London Office 13 MAR 1939  
 Date of writing Report 13 MAR 1939 When handed in at Local Office 13 MAR 1939 Port of London  
 No. in Survey held at Bedford. Date, First Survey 2<sup>nd</sup> Nov. 1938 Last Survey 16<sup>th</sup> Dec 1938  
 Reg. Book. Number of Visits 9/10  
 on the Single Twin Triple Quadruple Screw vessel Tons { Gross \_\_\_\_\_ Net \_\_\_\_\_  
 Built at Hong Kong By whom built Hongkong Whampoa Drydock Co. Ltd. No. 804 When built \_\_\_\_\_  
 Owners Messrs Matheson & Co. Ltd. Port belonging to \_\_\_\_\_  
 Oil Engines made at Bedford By whom made W.H. Allen & Co. Ltd. Contract No. K/75852 When made 1938  
 Generators made at do. By whom made do. Contract No. \_\_\_\_\_ When made 1938  
 No. of Sets 3. Engine Brake Horse Power 120 Nom. Horse Power as per Rule 23.89 Total Capacity of Generators 80 Kilowatts.

OIL ENGINES, &c.—Type of Engines Heavy Oil 2 or 4 stroke cycle 4 Single or double acting single  
 Maximum pressure in cylinders 700 lb/sq in Diameter of cylinders 230 mm Length of stroke 300 mm No. of cylinders 3 No. of cranks 3  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 282 mm Is there a bearing between each crank yes  
 Revolutions per minute 540 Flywheel dia. 1200 mm Weight 2800 lbs Means of ignition Compression Kind of fuel used Diesel oil  
 Crank Shaft, dia. of journals as per Rule 140 mm Crank pin dia. 150 mm Crank Webs as per Rule 190 mm Thickness parallel to axis shrunk  
 as fitted 140 mm Mid. length thickness 70 mm Thickness around eyehole shrunk  
 Flywheel Shaft, diameter as per Rule crankshaft Intermediate Shafts, diameter as per Rule 17 mm  
 as fitted crankshaft as fitted crankshaft Thickness of cylinder liners 17 mm  
 Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication Forced  
 Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material yes  
 Cooling Water Pumps, No. one to each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
 Lubricating Oil Pumps, No. and size yes  
 Air Compressors, No. yes No. of stages yes Diameters yes Stroke yes Driven by yes  
 Scavenging Air Pumps, No. yes Diameter yes Stroke yes Driven by yes

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

Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces yes

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

High Pressure Air Receivers, No. yes Cubic capacity of each yes Internal diameter yes thickness yes

Seamless, lap welded or riveted longitudinal joint yes Material yes Range of tensile strength yes Working pressure by Rules yes

Starting Air Receivers, No. yes Total cubic capacity yes Internal diameter yes thickness yes

Seamless, lap welded or riveted longitudinal joint yes Material yes Range of tensile strength yes Working pressure by Rules yes

ELECTRIC GENERATORS:—Type Open

Pressure of supply 220 volts. Full Load Current 363 (each) 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 an adjustable regulating resistance fitted in series with each

shunt field 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 yes

Receivers yes

Separate Tanks yes

SPARE GEAR As below:—

3 Fuel Injectors — 6 Fuel nozzles

3 Fuel Injector Springs.

1 Inlet Valve complete assembly.

6 Exhaust do do do.

3 Exhaust Valves only.

9 Exhaust Valve springs (inner & outer)

1 Starting Valve assembly. — 1 starting valve spring.

1 Fuel Pump — 2 Fuel filter cartridges.

2 Big end Bolts & nuts.

2 Main Bearing studs & nuts.

3 Sets of piston rings for 1 piston.

1 Judson pin & bush.

1 Set of studs & nuts for cyl. cover.

1 cyl. head relief valve

6. cyl. liner rubber joint rings.

1 Big end bearing bush.

1 pair of main bearings

1 lub oil filter cartridge

1 governor spring

1 Fuel injection pipe

3 Sets of generator brushes

3 Sets of generator brush holders

1 Spare Armature.

The foregoing is a correct description,

W.H. ALLEN, SONS & Co., Ltd., Manufacturer.

H.A. Clarke.



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W266-0067



Ser 13  
 Dates of Survey while building { During progress of work in shops - - } 1938. / Nov. 2, 9, 11, 15, 18, 22, 28 Dec 13, 16.  
 { During erection on board vessel - - - }  
 Total No. of visits 9. 10 (In Shop)

Dates of Examination of principal parts—Cylinders 18. 11. 38. Covers 18. 11. 38 Pistons 22. 11. 38 Piston rods ✓

Connecting rods 9. 11. 38 Crank and Flywheel shaft 2. 11. 38, 13. 9. 38, 28. 4. 38 Intermediate shaft ✓

Crank and Flywheel shafts, Material Steel Identification Mark LLOYDS 9180 LLOYDS 8983 LLOYDS 8742  
 GRC 23. 9. 38 MAB 23. 5. 38 MAB 23. 3. 38  
 HAG 2. 11. 38 AWC 13. 9. 38 HAG 28. 4. 38

Intermediate shafts, Material ✓ 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.) The engines have been constructed under Special Survey in accordance with the requirements of the Rules and approved plans; the steel was made at Works approved by the Committee; the workmanship is good and on completion the generators were tested upon the bench under full and overload conditions with satisfactory results.

The generators have been despatched to Hong Kong for installing on board the vessel.

The amount of Fee ... £ 18 : 18 0 When applied for, 19...  
 Travelling Expenses (if any) £ 1 : 14 0 When received, 15. 12. 39  
 D.M.K.

Committee's Minute

FRI. 1 SEP 1939

Assigned

see minute on  
 Hkq J.E. Rpt. 8391

For H.A. Jamett  
 J. R. Milton  
 Surveyor to Lloyd's Register of Shipping.



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