

Rpt. 4c. **REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.** No. 55201

Date of writing Report 19 When handed in at Local Office 4.12.1934 Port of Glasgow
 No. in Survey held at Reg. Book. Date, First Survey 5th Apr 34 Last Survey 6th Dec. 1934
 Number of Visits 37
 on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel M.V. Wairangi
 Built at Glasgow By whom built Messrs Harland & Wolff Yard No. 924 When built 1935
 Owners Shaw, Lambell & Albion Co. Ltd. Port belonging to Southampton
 Oil Engines made at Glasgow By whom made British Auxiliaries Ltd. Contract No. 147-8 When made 1934.
 Generators made at Belfast By whom made Harland Wolff Ltd. Contract No. When made
 No. of Sets 4 Engine Brake Horse Power 1800 Nom. Horse Power as per Rule 574. Total Capacity of Generators Kilowatts.

OIL ENGINES, &c.—Type of Engines British Plan. 2 or 4 stroke cycle 2 Single or double acting Single.
 Maximum pressure in cylinders 100 lbs 95 MIP Diameter of cylinders 250 1/2 Length of stroke 420 1/2 No. of cylinders 6 No. of cranks 6
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 1/2 Is there a bearing between each crank Yps.
 Revolutions per minute 340. Flywheel dia. 1050 1/2 Weight 694 tons Means of ignition Cmp. Kind of fuel used Diesel oil.
 Crank Shaft, dia. of journals as per Rule 158 1/2 as fitted 160 Crank pin dia. 160 1/2 Crank Webs Mid. length breadth 214 1/2 Thickness parallel to axis shrunk
 Flywheel Shaft, diameter as per Rule 158 1/2 as fitted 160 Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 19.5 1/2
 Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yps. Means of lubrication Inceol.
 Are the cylinders fitted with safety valves Yps. Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Lagged.
 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 1 each engine @ 2500 gal./hr.
 Air Compressors, No. No. of stages Diameters Stroke Driven by
 Scavenging Air Pumps, No. One each Eng Diameter 420 1/2 Stroke 240 1/2 Driven by Main Engines

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve Yps.
 Can the internal surfaces of the receivers be examined Yps. What means are provided for cleaning their inner surfaces End don.
 Is there a drain arrangement fitted at the lowest part of each receiver Yps.
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. 2 Total cubic capacity 14.1 ft Internal diameter 15 3/4 thickness 1/2
 Seamless, lap welded or riveted longitudinal joint lap welded. Material S Range of tensile strength 24-28 tons Working pressure by Rules 512. lbs.

ELECTRIC GENERATORS:—Type Open type D.C. Generators
 Pressure of supply 222 volts. Load 1350 Amperes. Direct or Alternating Current Direct
 If alternating current system, state frequency of periods per second
 Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes
 Generators, do they comply with the requirements regarding rating Yes are they compound wound Yes
 are they over compound 5 per cent. Yes, if not compound wound state distance between each generator
 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

PLANS. Are approved plans forwarded herewith for Shafting Y.H. 33 Receivers 1.2.34 Separate Tanks
 (If not, state date of approval)
SPARE GEAR

4/12/34 As per List Attached

The foregoing is a correct description,
 For **BRITISH AUXILIARIES, LIMITED,**
 John Rogers
 DIRECTOR

November 30th 1934.
 Manufacturer.

Dates of Survey while building { During progress of work in shops - - } 1934 Apr.: 5 May.: 2. 8. 10. 23. 31 July.: 2. 10. 25. 31 Aug.: 1. 6. 8. 14. 16. 21. 27. 31
 { During erection on board vessel - - - } Sep.: 11. 17. 20. 27 Oct.: 1. 4. 11. 12. 16. 17. 18. 24. 25. 26. 29. 30 Nov.: 1. 2. 6
 Total No. of visits 37

Dates of Examination of principal parts—Cylinders 29.10.34. Covers 1.11.34. Pistons 16.10.34. Piston rods —

Connecting rods 16.10.34. Crank and Flywheel shaft 17.10.34. Intermediate shaft —

Crank and Flywheel shaft, Material S.M. Iron. Identification Mark 9200, 9201, 9208, 9209. Intermediate shafts, Material — Identification Marks —

Is this machinery duplicate of a previous case No. If so, state name of vessel M.O. Waipawa

General Remarks (State quality of workmanship, opinions as to class, &c.)
 These generators have been built under special Licensing and in accordance with the Rules. The materials & workmanship are good. On completion they have been tried on bench under full power and found satisfactory.

These generators will be eligible, in our opinion, for inclusion in the classification and notation of +1000 of this vessel when they have been efficiently secured in position on board and tried under full working conditions.

They have been forwarded to the works of the Builders for fitting on board.

These engines & their generators have been efficiently fitted on board, examined under full power & found satisfactory.

Done Glasgow 8/2/35

1m. 7.20—Transfer.
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £57 : 8 4 - DEC 1934

Travelling Expenses (if any) £ : : 3/12/34

Committee's Minute GLASGOW 4-DEC 1934

Assigned Deferred

George Thomas & Co. Surveyors to Lloyd's Register of Shipping.

Controller

See Gen. Rpt. No. 55326



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