

4c. REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS. No. 48608

Received at London Office 21 NOV 1928

of writing Report 19 When handed in at Local Office 15. 11. 1928 Port of Glasgow  
in Survey held at Glasgow Date, First Survey 25. 5. 28 Last Survey 13. 11. 1928  
Book. Number of Visits 3

Single on the Twin Triple Quadruple Screw vessel  
at Glasgow By whom built Messrs John Brown & Co Ltd Ward No. 522 When built 1928  
New Zealand Shipping Co. Port belonging to Plymouth  
Engines made at Glasgow By whom made Messrs G. & J. Weir Ltd Contract No. 86676 When made 1928  
Generators made at Bradford By whom made Messrs English Electric Co Contract No. 13218 When made 1928

of Sets one Engine Brake Horse Power 60 Nom. Horse Power as per Rule 17 Total Capacity of Generators 36 Kilowatts.  
Type of Engines Solid injection 2 or 4 stroke cycle 2 Single or double acting Single  
Minimum pressure in cylinders 540 Diameter of cylinders 9 1/2" Length of stroke 13 1/2" No. of cylinders 2 No. of cranks 2  
of bearings, adjacent to the Crank, measured from inner edge to inner edge 14 1/8" Is there a bearing between each crank yes  
Revolutions per minute 350 Flywheel dia. 4' 0" Weight 4160 lb Means of ignition Compression Kind of fuel used Diesel  
as per Rule 4. 91" Crank pin dia. 5 1/8" Mid. length breadth 7" Thickness parallel to axis ✓  
as fitted 5" Crank Webs 3" Mid. length thickness 3" Thickness around eyehole ✓  
as per Rule ✓ Intermediate Shafts, diameter as per Rule ✓ Thickness of cylinder liners 2 5/8" max 5/8" min.  
as fitted ✓ Is the sea suction provided with an efficient strainer which can be cleared within the vessel

governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication Ring  
the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Inland w. cooled Silencer Lagged  
ing Water Pumps, No. one  
Lubricating Oil Pumps, No. and size ✓  
Compressors, No. one No. of stages 1 Diameters 2 3/4" Stroke 3 1/4" Driven by Friction drive  
Serving Air Pumps, No. Crankcase Scavenge Diameter ✓ Stroke ✓ Driven by ✓  
RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes  
the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces Loose ends.  
were a drain arrangement fitted at the lowest part of each receiver yes  
h Pressure Air Receivers, No. ✓ Cubic capacity of each ✓ Internal diameter ✓ thickness ✓  
less, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules ✓  
rting Air Receivers, No. 2 Total cubic capacity 4.8 cu ft Internal diameter 10" thickness 1/4"  
less, lap welded or riveted longitudinal joint Leamster Material Steel Range of tensile strength 28-32 tons Working pressure by Rules 580 lb.

ELECTRIC GENERATORS:—Type Canopy protected  
ssure of supply 220 volts. Load 163.6 Amperes. Direct or Alternating Current Direct  
Alternating current system, state frequency of periods per second ✓  
the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off yes  
erators, do they comply with the requirements regarding rating yes are they compound wound yes  
they over compound 5 per cent. yes, if not compound wound state distance between each generator  
adjustable regulating resistance fitted in series with each shunt field yes Are all terminals accessible, clearly marked, and furnished with sockets yes  
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  
N.S. Are approved plans forwarded herewith for Shafting 21-10-27 Receivers 2-7-28 Separate Tanks

RE GEAR  
Fuel injection valve 1 set compressor piston rings Generator Set  
Air starting valve 1 suction valve for compressor 1 armature  
Cyl relief valve 1 discharge " " 1 set field coils  
2 groups of crankcase air inlet valves 1 Fuel pickup plunger & guide 1 set interpole coils  
1 Fuel valve needle & guide 1 set fuel pump valves 1 set brushes holder  
1 set piston rings 1 set cylinder studs 2 " bushes  
1 pair of big end bolts 1 set circulating pump valves & seats 1 bearing bush.  
" Studs for main bearings

The foregoing is a correct description.  
G. & J. Weir, Ltd. John G. Weir Manufacturer.  
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1928 May 25 July 6 Nov. 13  
During progress of work in shops - -  
During erection on board vessel - - -  
Total No. of visits

Dates of Examination of principal parts—Cylinders 25-5-28 Covers 25-5-28 Pistons 6-7-28 Piston rods 6-7-28

Connecting rods 6-7-28 Crank and Flywheel shaft 6-7-28 Intermediate shaft ✓

Crank and Flywheel shaft, Material Steel Identification Mark LLOYD'S TEST No 6841. Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case? yes If so, state name of vessel M.V. BERMUDA. (ENGINE ONLY)

General Remarks (State quality of workmanship, opinions as to class, &c.) This Auxiliary has been built under

survey in accordance with the Rules of the Lloyd's Register of Shipping.

The materials and workmanship are good.

The engine was examined while running on the test bed and found satisfactory.

*[Faint handwritten notes and signatures in the main body of the report, including "The engine was examined while running on the test bed and found satisfactory." and "The materials and workmanship are good."]*

The amount of Fee ... £ 4-0-0  
Travelling Expenses (if any) £

Committee's Minute  
Assigned Transmit to London  
GLASGOW 30 NOV 1928  
See Glasgow Report No. 49810.  
S. E. Murdoch  
Surveyor to Lloyd's Register of Shipping.  
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