

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 106690

Date of writing Report 29 Nov. 1938 When handed in at Local Office - 8 DEC 1938 Port of London
 Date, First Survey 15 June Last Survey 22 Nov. 1938
 Number of Visits 21
 Survey held at Bedford.
 on the Single Triple Quadruple Screw vessel DOMINION MONARCH
 Tons { Gross 27155
 Net 15813
 Built at Newcastle By whom built Laurie Hunter & Co. Ltd. No. 1547 When built
 Owners Thos. Swan Smith & Co. Ltd. Port belonging to
 Engines made at Bedford By whom made W. H. Allen & Sons Ltd. Contract No. K/69269 When made 1938
 Generators made at do By whom made do Contract No. When made
 No. of Sets 5 Engine Brake Horse Power 900 Nom. Horse Power as per Rule Total Capacity of Generators 600 Kilowatts.

L ENGINES, &c. Type of Engines Heavy Oil 2 or 4 stroke cycle 4 Single or double acting single
 Maximum pressure in cylinders 650 lb. Diameter of cylinders 430 Z Length of stroke 600 Z No. of cylinders 6 No. of cranks 6
 Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 530 Z Is there a bearing between each crank yes
 Revolutions per minute 280 Flywheel dia. 2040 Z Weight 13500 lb Means of ignition Compression Kind of fuel used Dist. oil
 Crank Shaft, dia. of journals as per Rule 238 Z Crank pin dia. 250 Z Mid. length breadth 360 Z Thickness parallel to axis shrunk
 as fitted 250 Z Crank Webs Mid. length thickness 135 Z Thickness around eye hole
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 25 Z
 as fitted crank shaft as fitted
 Is there 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
 Cooling Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 Lubricating Oil Pumps, No. and size 1 geared each engine
 Air Compressors, No. 1 No. of stages 1 Diameters 1 Stroke 1 Driven by 1
 Sucking Air Pumps, No. 1 Diameter 1 Stroke 1 Driven by 1

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule
 Are the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces
 Is there a drain arrangement fitted at the lowest part of each receiver
 High Pressure Air Receivers, No. 1 Cubic capacity of each 56.0 C.Ft. Internal diameter 1' 11 3/8" thickness 5/16"
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength 26/30 Working pressure by Rules 300 lb.
 Starting Air Receivers, No. 5 Total cubic capacity 56.0 C.Ft. Internal diameter 1' 11 3/8" thickness 5/16"
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength 26/30 Working pressure by Rules 300 lb.

ELECTRIC GENERATORS:—Type open
 Pressure of supply 220 volts. Load 2730 (2727) Amperes. Direct or Alternating Current Direct
 Is the 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
 Do the generators, do they comply with the requirements regarding rating yes are they compound wound yes
 Do they over compound 5 per cent. yes, if not compound wound state distance between each generator
 Is there 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
 Are approved plans forwarded herewith for Shafting 1 Receivers 7.11.34 Separate Tanks 1
 (If not, state date of approval)

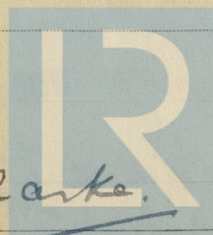
ARE GEAR 3 cylinder liners; 1 cylinder head with valves complete;
 6 Exhaust valves with casings, springs & levers; 6 inlet valves with casings
 springs & levers; 1 set of studs & nuts for 1 cylinder; 3 pistons complete;
 3 gudgeon pins with bushes; 1 complete set of piston rings; 1 connecting
 rod complete; 6 connecting bottom end bolts & nuts; 6 bottom end brasses;
 2 main bearings; 1 main thrust bearing; 2 studs & nuts for
 main bearing; 2 fuel pumps complete & many other parts as
 per list attached.

The foregoing is a correct description,

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

Manufacturer.

H. H. Clarke.



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Foundation

002947-002955-0215

Dates of Survey while building { During progress of work in shops - } 1938 June 15, 17. Aug. 17, 30. Sept 2, 8, 13, 16, 22, Oct. 6, 7, 13, 14, 21, 24, 27, Nov. 2, 9, 4, 11, 22, 21.
 { During erection on board vessel - - }
 Total No. of visits 21.

Dates of Examination of principal parts—Cylinders 16.9.38. 21.10.38. Covers 14.10.38. 8.9.38. Pistons 16.9.38. Piston rods ✓
 Connecting rods 17.8.38. 16.9.38. Crank and Flywheel shaft 8.9.38. 17.8.38. 12.10.38. Intermediate shaft ✓
 Crank and Flywheel shaft, Material steel Identification Mark see below. 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.) These generator engines have been built under Special Survey in accordance with the requirements of the Rules & approved plans; the steel was made at Works approved by the Committee, the workmanship is good and on completion the generators were tested on the bench under full & overload conditions and found satisfactory.

The Generators have been forwarded to Newcastle for fitting on board the vessel.

Marks on crank shafts: (LLOYDS 709. 960. T.W.B. 14. 2. 38. HAG 8.9.38.) (LLOYDS 1040. 12.4.38. 1.7.38. HAG 17.8.38.)
 (LLOYDS 77. 515. 12.9.38. P.F. 14. 10.38. HAG 21.10.38.) (LLOYDS 77. 526. 23.9.38. P.F. 28.10.38. HAG 4.11.38.)
 (502. P.F. 1.14.38. J.F.N. 12.10.38.)

These five Auxiliary Oil Engines have been satisfactorily fitted on "CORESIL" Cork Pads (see Secoy's letter of 3/12/38) and examined under working conditions and found satisfactory.

A Watt
 Newcastle on Tyne
 27/1/39.

The amount of Fee ... £52-10-0 When applied for, 8 DEC 1938

Travelling Expenses (if any) £3-19-6 When received, 12 Feb 1939

M. T. Garnett
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. 14 FEB 1939

See New. J.E. 97140



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Generator Test Sheets &c.