

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 106779

Received at London Office -2 JAN 1939

Date of writing Report 27 Dec. 1938. When handed in at Local Office -2 JAN 1939 Port of London  
 No. in Survey held at Bedford. Date, First Survey 5 Oct 1938 Last Survey 9 Dec 1938  
 Reg. Book. Number of Visits 10

Single  
on the Twin  
Triple  
Quadruple

ROYAL DAFFODIL

Tons { Gross 2060  
Net 1046

Built at Gumbarton By whom built W. Denny & Co. Yard No. 1330 When built 1938  
 Owners General Steam Navigation Co. Ltd. Port belonging to London  
 Oil Engines made at Bedford By whom made W. H. Allen & Sons Ltd. Contract No. K1/74232. When made 1938  
 Generators made at do By whom made do each Contract No. When made 1938.  
 No. of Sets 3. Engine Brake Horse Power 150 Nom. Horse Power as per Rule 32 Total Capacity of Generators 100 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. Diameter of cylinders 230 1/2 Length of stroke 300 1/2 No. of cylinders 4 No. of cranks 4  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 282 1/2 Is there a bearing between each crank yes.  
 Revolutions per minute 535 Flywheel dia. 1200 1/2 Weight 3500 lb. Means of ignition Compression Kind of fuel used Diesel oil  
 Crank Shaft, dia. of journals as per Rule 130. as fitted 140 1/2 Crank pin dia. 150 1/2 Crank Webs Mid. length breadth 190 1/2 Mid. length thickness 70 1/2 Thickness parallel to axis 1/2 Thickness around eyehole 1/2  
 Flywheel Shaft, diameter as per Rule 17 1/2 as fitted Intermediate Shafts, diameter as per Rule 17 1/2 as fitted Thickness of cylinder liners 17 1/2  
 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  
 Cooling Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
 Lubricating Oil Pumps, No. and size  
 Air Compressors, No. No. of stages Diameters Stroke Driven by  
 Scavenging Air Pumps, No. Diameter Stroke Driven by

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule  
 Can 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. 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. one Total cubic capacity 5 cu ft. Internal diameter 1' 6" thickness 5/16"  
 Seamless, lap welded or riveted longitudinal joint Seamless Material steel Range of tensile strength 26-30 Working pressure by Rules 300 lb.  
 ELECTRIC GENERATORS:—Type open type.

Pressure of supply 220 volts. Load 454 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 compounded 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 29.10.36 Receivers Separate Tanks

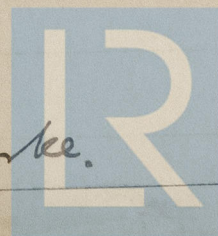
SPARE GEAR Not yet supplied

The foregoing is a correct description.

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

Manufacturer.

H. H. Clarke.



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005258-005258-0308



Dates of Survey while building { During progress of work in shops - 1938. Oct. 5. 21. 27. Nov. 4. 11. 15. 22, 24, 28. Dec. 9.  
During erection on board vessel - - -  
Total No. of visits 10

Dates of Examination of principal parts—Cylinders 27.10.38 27.10.38  
4.11.38 Covers 4.11.38 Pistons 27.10.38 Piston rods

Connecting rods 27.10.38 Crank and Flywheel shaft 5.10.38 5.8.38 23.9.38 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 constructed 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 sets were tested upon the bench under full & overload conditions with satisfactory results.

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

Marks on crank shaft. LLOYDS 1170 19.8.38. HAG. 5.10.38. LLOYDS 600 H&C 5.8.38  
HAG 21.10.38. 903 LLOYDS 5.28. 23.9.38. HAG. 11.11.38.

Mark on air bottle. S. 7628. LLOYDS TEST 600 lb. WP 300 lb. 26.9.38. HAG 28.11.38.

Messrs W.H. Allen, Sons & Co., Ltd. have been informed that spare gear must be supplied & they are now in communication with the Builders.

The amount of Fee ... £18.18.6

When applied for,  
-2 JAN 1939

Travelling Expenses (if any) £ 2:14:6

When received,  
1/3/39

A. F. Samett  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned



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