

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 112764

Date of writing Report 18.4.1945 when handed in at Local Office **30 APR 1945** Port of **Ip Swich** Received at London Office **30 APR 1945**  
 No. in Survey held at **Colchester** Date, First Survey and Last Survey **13-4-1945**  
 Reg. Book. Number of Visits **on**

on the **Single** Screw vessel **Empire Belgrave** Tons { Gross / Net  
 Built at **Glasgow** By whom built **A. & J. Inglis Ltd.** Yard No. **1299** When built  
 Owners Port belonging to

Oil Engines made at **Colchester** By whom made **Dawsey Phipps & Co. Ltd.** Contract No. **4812**. When made **1945**  
 Generators made at **Chelmsford** By whom made **Crompton Parkinson** Contract No. **F.121A-1392** when made **1945**  
 No. of Sets **one** Engine Brake Horse Power **48** ✓ Nom. Horse Power as per Rule **14**. Total Capacity of Generators **25** Kilowatts.

**INTERNAL ENGINES, &c.**—Type of Engines **Heavy Oil "4 RQ" Type** 2 or 4 stroke cycle **4** Single or double acting **single**  
 Maximum pressure in cylinders **750 lb. sq. in.** Diameter of cylinders **4 3/8"** Length of stroke **5 7/8"** No. of cylinders **4** No. of cranks **4**  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **5 7/8"** **5 1/2"** Is there a bearing between each crank **Yes** ✓  
 Revolutions per minute **1100** ✓ Flywheel dia. **28"** Weight **495 lb.** Means of ignition **Compression** Kind of fuel used **coal** ✓  
 Crank Shaft, dia. of journals as per Rule **app. 3 1/8"** as fitted **3 1/8"** Crank pin dia. **2 7/8"** Crank Webs Mid. length breadth **4 1/2"** Thickness parallel to axis ✓  
 as per Rule **3 1/8"** as fitted **3 1/8"** Mid. length thickness **1 1/4"** shrunk Thickness around eye hole ✓  
 Flywheel Shaft, diameter as per Rule **3 1/8"** as fitted **3 1/8"** Intermediate Shafts, diameter as per Rule **✓** as fitted **✓** Thickness of cylinder liners **1/8"**

Is a governor or other arrangement fitted to prevent racing of the engine when detached **Yes** ✓ Means of lubrication **Forced** ✓  
 Are the cylinders fitted with safety valves **no** ✓ 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 **one gland** ✓  
 Air Compressors, No. **✓** No. of stages **—** Diameters **—** Stroke **—** Driven by **—**  
 Scavenging Air Pumps, No. **✓** Diameter **—** Stroke **—** Driven by **—**

**AIR RECEIVERS:**—Have they been made under Survey State No. of Report or Certificate  
 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.** Total cubic capacity Internal diameter thickness  
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

**ELECTRIC GENERATORS:**—Type **Enclosed unitated**  
 Pressure of supply **110** volts. Full Load Current **227** Amperes. Direct or Alternating Current **Direct**  
 If alternating current system, state the periodicity **✓** Has the Automatic Governor been tested and found as per rule when full load is suddenly thrown on and off **Yes** ✓  
 Generators, are they compounded as per rule **✓** is an adjustable regulating resistance fitted in series with each shunt field **✓**  
 Are all terminals accessible, clearly marked, and furnished with sockets **✓**  
 Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched **✓** Are the lubricating arrangements of the generators as per Rule **✓**  
 If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test **✓** and do the results comply with the requirements **✓**  
 If the generators are 100 kw. or over have they been built and tested under survey **✓**

**PLANS.** Are approved plans forwarded herewith for Shafting **10-6-44** ✓ Receivers **✓** Separate Tanks **✓**  
 (If not, state date of approval)

**SPARE GEAR**

The foregoing is a correct description,  
**D. DAWSEY, PHIPPS & CO. LIMITED,**  
 A. N. Mathison  
 Manufacturer.



Dates of Survey while building  
 During progress of work in shops - - 13-4-45.  
 During erection on board vessel - - -  
 Total No. of visits *One*

Dates of Examination of principal parts—Cylinders *LLOYDS 50 LBS 20-3-43* Covers *LLOYDS 50 LBS. 20-3-43* Pistons *H.Y.B.* Piston rods  
 Connecting rods ✓ Crank and Flywheel shafts ✓ Intermediate shafts ✓

Crank and Flywheel shafts, Material *Steel* Identification Marks ✓

Intermediate shafts, Material ✓ Identification Marks ✓

Identification marks on Air Receivers

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 Engine has been constructed under Special Survey in accordance with the approved plans & Secretaries letters. The materials & workmanship are sound & of good description. The Engine has been tested under full load conditions for a period of four hours and for 1/2 hour at 15% overload. The Governor has been tested & found satisfactory.

Approved for torsional Endorsement 31/8/45

Notes This type of engine & set has been approved in respect to requirements of Notice 1508. See how endorsement 31.8.45 attached to how file

141430—Transfer, (MADE AND PRINTED IN ENGLAND)  
 (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... .. £ 5 : 5 : 0  
 Travelling Expenses (if any) £ 10 : 6  
 When applied for, 30 APR 1945  
 When received, 19

*Joywell*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned

