

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 122.

pt. 4c.

Received at London Office

29 MAR 1945

Date of writing Report

22-3-45

When handed in at Local Office

26-3-1945 Port of

LEEDS.

No. in Survey held at  
Reg. Book.

LEEDS

Date, First Survey

6-7-44

Last Survey

21-3-1945

Number of Visits

4

Single  
on the Twin  
Triple  
Quadruple

Screw vessel

"EMPIRE GUERNSEY"  
(Admiralty Contract No. C.P. (M.S.) 2204/43)

Tons { Gross  
Net

Built at **Knottingley**

By whom built

**John Harker Ltd.**

Yard No. 168 When built

Owners

Port belonging to

Oil Engines made at

**Leeds**

By whom made

**John Fowler Ltd.**

Contract No. C.P. (M.S.) 2204/43 When made 1945

Generators made at

**Manchester**

By whom made

**Lancashire Dynamo Ltd.**

Contract No. -do- When made 1945

No. of Sets **One** Engine Brake Horse Power

**20**

Nom. Horse Power as per Rule

**6**

Total Capacity of Generators **10** Kilowatts.

OIL ENGINES, &c. Type of Engines

**Heavy Oil Engine**

2 or 4 stroke cycle **4** Single or double acting **Single**

Maximum pressure in cylinders

**900**

Diameter of cylinders

**4 1/2**

Length of stroke

**6 1/2**

No. of cylinders

**2**

No. of cranks

**Two**

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

**12.5/16"**

Is there a bearing between each crank **No.**

Revolutions per minute

**1100**

Flywheel dia.

**20 1/2"**

Weight

**500 Lbs**

Means of ignition **Compression**

Kind of fuel used

**Heavy Oil**

Crank Shaft, dia. of journals

as per Rule **Approved**

Crank pin dia.

**3 1/2"**

Crank Webs

Mid. length breadth **4 1/2"**

Thickness parallel to axis

**-**

as fitted **3 1/2"**

Crank pin dia.

**3 1/2"**

Crank Webs

Mid. length thickness **Side 1 1/4"**

shrink

Thickness around eye hole

**-**

Flywheel Shaft, diameter

as per Rule **-**

Intermediate Shafts, diameter

as fitted **-**

Thickness of cylinder liners

**17/64"**

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 **No.**

**No.**

Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

**No.**

Cooling Water Pumps, No.

**Radiator with Circ. Pump**

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

**-**

Lubricating Oil Pumps, No. and size

**One Geared Type - Capacity 5 1/2/6 Galls. per min.**

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

**Not supplied**

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

Internal diameter

thickness

**-**

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

**D.30.A. Compound Wound Interpole. Drip Proof.**

Pressure of supply

**110** Volts.

Full Load Current

**91.0**

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

**Yes**

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

**Yes**

If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test

**Yes**

and do the results comply with the requirements

**Yes**

If the generators are 100 kw. or over have they been built and tested under survey

**8-10-43**

Receivers

Separate Tanks

**-**

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

THE SPARE GEAR

As per Rule requirements.

The Engine and Generator are mounted on a fabricated steel baseplate.

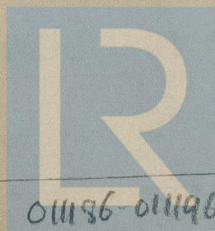
The foregoing is a correct description.

FOR JOHN FOWLER & CO. (LEEDS)

Manufacturer.

*E. D. Ellis*

CHIEF ENGINEER.



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011186-011196-011197



\*Dates of Survey while building { During progress of work in shops - - 6-7-44, 17-11-44, 20-11-44 and 21-3-45.  
During erection on board vessel - - -  
Total No. of visits

Dates of Examination of principal parts—Cylinders 20-11-44 Covers 20-11-44 Pistons 17-11-44 Piston rods -  
Connecting rods 6-7-44 Crank and Flywheel shafts 12-4-44 Intermediate shafts -  
Crank and Flywheel shafts, Material Siemens Forged Steel Identification Marks LLOYD'S J.2545 758/5.  
Intermediate shafts, Material - Identification Marks  
Identification marks on Air Receivers -

Is this machinery duplicate of a previous case See Below If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

This Engine No. 2010027 has been constructed under special survey of tested materials, in accordance with the Secretary's letters, approved plans and the requirements of the Rules.

The materials and workmanship are good and the engine was found to be satisfactory when tested in the shops under full load conditions.

The Generator No. 198654 was approved by the Manchester Surveyors at the Makers Works - Messrs. Lancashire Dynamo & Crypto Ltd.

The set was finally examined under running conditions with the engine and generator mounted on the common baseplate.

This diesel engine driven electric generator set is suitable, in my opinion, for the purpose intended and when satisfactorily installed and reported will be eligible to receive the notation

✚ L.M.C. (with date).

NOTE: - The engine and generator are duplicates of those supplied to the Vessels CHANT 66 and 67; the air compressor, included with the machinery in the latter vessels being omitted in this case on instructions issued by the Admiralty.

The above engine & generator installed on board "Empire Guernsey" at Goole - see Hull report no. 52939.

W. E. Cornish

The amount of Fee ... £ 5 : 5 : 21-3-1945  
Travelling Expenses (if any) £ : : When received, 19.....

Committee's Minute  
Assigned

WED. 18 JUL 1945

As new

D. H. Waller  
Surveyor to Lloyd's Register of Shipping.



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