

Rpt. 4c.

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

MOB. RPT. 17965

No. 112980

Date of writing Report 24.6.45

No. in Survey held at Reg. Book.

When handed in at Local Office

Bedford.

Port of London

Received at London Office

Date, First Survey 6 April

Last Survey 22 June 1945

Number of Visits 8

Single  
on the Twin  
Triple  
Quadruple

Screw vessel

Built at Haverton Hill on Tees.

Owners

By whom built James S. B. Co. Ltd.

Yard No. 388

Tons { Gross 13830  
Net 7401

When built 1945

Oil Engines made at Bedford

Port belonging to

Generators made at

By whom made W. H. Allen Sons &amp; Co. Ltd.

Contract No. 1/57831

When made 1945

No. of Sets 2 for Northval.

By whom made

Contract No. 1/57832

When made

OIL ENGINES, &amp;c. Type of Engines

Nom. Horse Power as per Rule 330 Each

Total Capacity of Generators 220

Kilowatts. Each.

Maximum pressure in cylinders 800 lb

Diameter of cylinders 290 1/2

2 or 4 stroke cycle 2

Single or double acting Single

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 352 1/2

Length of stroke 470 1/2

No. of cylinders 3

No. of cranks 3

Revolutions per minute 310

Flywheel dia. 1500 1/2

Weight 3500 lbs

Is there a bearing between each crank yes

Crank Shaft, dia. of journals as per Rule 229 1/2

Crank pin dia. 200 1/2

Means of ignition Compression

Kind of fuel used Heavy oil

Flywheel Shaft, diameter as per Rule 230 1/2

Intermediate Shafts, diameter as fitted

Mid. length breadth 320 1/2

Mid. length thickness 93 1/2

Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes

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

Thickness parallel to axis

Thickness around eye-hole

Cooling Water Pumps, No. one centrifugal

Lubricating Oil Pumps, No. and size one Rotary Gear type

Air Compressors, No.

Scavenging Air Pumps, No.

AIR RECEIVERS: Have they been made under Survey

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined

Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No.

Cubic capacity of each

Internal diameter

Material

Starting Air Receivers, No. 1 per engine

Total cubic capacity 11.2 cu ft.

Range of tensile strength

Internal diameter 21 0

ELECTRIC GENERATORS: Type open

Material Steel

Range of tensile strength 26/30 tons

Working pressure by Rules 300 lb

Pressure of supply 220 volts

Full Load Current 1000

Amperes

Direct or Alternating Current Direct

If alternating current system, state the periodicity

Generators, are they compounded as per rule

Has the Automatic Governor been tested and found as per rule when full load is suddenly thrown on and off

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

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

Are the lubricating arrangements of the generators as per Rule

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

PLANS. Are approved plans forwarded herewith for Shafting

Receivers

Separate Tanks

SPARE GEAR 1 piston; 1 cy liner; 20 piston rings; 1 main bearing; 2 main bearing

bolts; 5 exhaust valves &amp; springs; 1 fuel injector; 6 nozzles; 1 fuel pump;

2 spare plungers; 1 lub. oil pump; 1 starting air valve assembly;

1 relief valve assembly; 1 set studs &amp; nuts for one cylinder; 1 gudgeon

pin and bearing; 1 bottom end bearing &amp; bolts; 3 set of springs

etc; two brush holders &amp; brushes for 1 generator

The foregoing is a correct description.

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

Manufacturer.

K. H. Clarke. 28/6/45.

004785-004788-0207

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Lloyd's Register

Foundation

Dates of Survey while building  
During progress of work in shops - -  
During erection on board vessel - - -  
Total No. of visits

1945 April 6 May 11. 18. 24. June 1. 8. 12. 22.

8.

Dates of Examination of principal parts—Cylinders 18.5.45 2.6.45 Covers 24.5.45 12.6.45 Pistons 24.5.45 Piston rods

Connecting rods 1.6.45

Crank and Flywheel shafts 11.5.45 18.5.45

Intermediate shafts

Crank and Flywheel shafts, Material

Steel

Identification Marks

440YDS TT 4168 5.4.45 RW 11.5.45

Intermediate shafts, Material

Identification Marks

4169 10.4.45 RW 18.5.45

Identification marks on Air Receivers

440YDS 81/44 0751 W.P. 300 TEST. 600 N. 6.4.45 E-4436 E-4437

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 generator sets were constructed under Special Survey in accordance with the requirements of the Rules and 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 and overload conditions with satisfactory results.

The sets have forwarded to Mdb. for fitting on board the vessel.

Calculations for Longitudinal Vibration approved 23<sup>rd</sup> July 1945.

Noted G.M.  
7.8.45

Only one of the above sets Engine K2/51831/C & Dynamo E2/51832/3 has now been fitted. The other set may be fitted later.  
See Mdb. Ltr. 17/1/46.

The amount of Fee ... £21.-0.-0

When applied for,

19 July 1945

Travelling Expenses (if any) £ 2 : 1 : 8

When received,

19

Committee's Minute

FRI, 15 FEB 1946

Assigned

See F.E. machy. sph

For self.

M. Barnett & R.W. Coomber

Surveyor to Lloyd's Register of Shipping.



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