

RECEIVED

ELL201

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 196

Received at London Office

JUN 1947

28 OCT 1947

Date of writing Report

19

When handed in at Local Office

19

Port of

NOTTINGHAM.

No. in  
Reg. Book.

Survey held at Lincoln.

Date, First Survey

Last Survey

19

Number of Visits

Single  
on the Twin  
Triple  
Quadruple

Screw vessel

Tons

Gross

Net

Built at Hull.

By whom built Amos &amp; Smith Ltd.

Yard No.

When built

Owners.

Port belonging to

Oil Engines made at Lincoln

By whom made Ruston &amp; Hornsby Ltd.

Contract No. 450642.3

When made

1947

Generators made at Rugby.

By whom made British Thomson Houston Co. Ltd.

Contract No.

When made

No. of Sets 2

Engine Brake Horse Power

120 M.N. as per Rule

30

Total Capacity of Generators

160

Kilowatts.

Set intended for essential services

**OIL ENGINES, &c.**—Type of Engines 6VPHZ. Engine Nos. 246100 - 246101 or 4 stroke cycle 4 Single or double acting SA  
Maximum pressure in cylinders 1000 lbs. Diameter of cylinders 5.3" Length of stroke 8" No. of cylinders 6 No. of cranks 6  
Mean indicated pressure 109 lbs. Firing order in cylinders 1 2 4 6 5 3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6.25/32"  
Is there a bearing between each crank Yes Moment of inertia of flywheel (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) 1870 lbs.-ft. Revolutions per minute 1000  
Flywheel dia. 2' 2" Weight 630 lbs. Means of ignition Compression Kind of fuel used Diesel Oil.  
Crank Shaft, dia. of journals as per Rule Approved as fitted 4.3/16" Crank pin dia. 3.1" Crank Webs Mid. length breadth 5.3" Thickness parallel to axis  
Mid. length thickness 1.3" shrunk Thickness round eyehole  
Flywheel Shaft, diameter as per Rule as fitted C' shaft. Intermediate Shafts, diameter as per Rule as fitted General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>)  
Are means provided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted  
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. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size one-557 gallons/hour. engine driven.

Compressors, No. No. of stages Diameters Stroke Driven by

Sucking Air Pumps, No. Diameter Stroke Driven by

**AIR RECEIVERS:**—Have they been made under Survey State No. of Report or Certificate

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. Cubic capacity of each Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Sucking 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 Machine No. 474362/1/19 - /38

Pressure of supply 220 volts. Full Load Current 367 Amperes. Direct or Alternating Current D.C.

Alternating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown

and off Yes Generators, are they compounded as per Rule Yes 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

Is it yielded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

Are the generators under 100 kw. full load rating, have the makers supplied certificates of test Yes and do the results comply with the requirements Yes

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

List of driven machinery other than generator Nil

**SHAFTS.**—Are approved plans forwarded herewith for Shafting Standard Approved. Receivers. Separate Tanks.

Torsional Vibration characteristics if applicable been approved Armature shaft Drawing No.

**FREE GEAR** As per RuleRuston & Hornsby Limited,  
The foregoing is a correct description,

Hans

5 11 47

Manufacturer.

Oil &amp; Gas Engine Dept.



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Lloyd's Register  
Foundation

003046-003055-0262



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

Dates of Examination of principal parts—Cylinders..... 12.7.46. Covers..... 12.7.46. Pistons..... 12.7.46. Piston rods.....

Connecting rods..... 12.7.46. Crank and Flywheel shafts..... 12.7.46. Intermediate shafts.....

Crank shaft { Material..... Tensile strength..... LL. 413. RD. 4638.  
Elongation..... Identification Marks..... LL. 415. RD. 4639.

Flywheel shaft, Material..... Identification Marks.....

Identification marks on Air Receivers.....

Is this machinery duplicate of a previous case..... Yes..... If so, state name of vessel..... Standard Type.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.).....

This engine has been built under Special Survey in accordance with the approved plans and Regulations of the Society, materials and workmanship being good.

On completion the set was tried in the Shops under working conditions and found to be satisfactory.

The set has been forwarded to Hull for installation on board the vessel.

*Inspected approved in Decib. 7 9-4-46 for a duplicate case*  
*SM*

*Efficiency fitted on board -*  
*men*

The amount of Fee ... £ 4 : 10 : 0 { When applied for 13.6. 1947.  
per engine. { When received..... 19.....  
Travelling Expenses (if any) £ : : .....

Committee's Minute.....

Assigned..... See F.B. mchly spot.

FRI. 28 NOV 1947

Surveyor to Lloyd's Register of Shipping.



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