

RECEIVED

MAY 1949

Port. 4c.

D.O.

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 118162

Received at London Office

Date of writing Report 20.4.1949 When handed in at Local Office 8 May 1949 Port of Liverpool

No. in Survey held at Calcutta Date, First Survey 11-6-48 Last Survey 29-3-1949 Number of Visits Two

Single on the Twin Triple Quadruple Screw vessel POOLE QUAY Built at Sunderland By whom built Wm Pickersgill & Sons Yard No. 312 When built 1949

Owners British Electricity Authority Port belonging to London

Oil Engines made at Calcutta By whom made Dewar, Payman & Co. Ltd. Contract No. 258531 When made 1949

Generators made at Sunderland By whom made Sunderland Forge & Eng. Co. Ltd. Contract No. 40158 When made 1949

No. of Sets 6 Engine Brake Horse Power 11 M.N. as per Rule Total Capacity of Generators 6 Kilowatts

Is Set intended for essential services.

OIL ENGINES, &c.—Type of Engines Heavy Oil (2 VTH-Lp) 2 or 4 stroke cycle 4 Single or double acting 8

Maximum pressure in cylinders 850 lb. Diameter of cylinders 4 Length of stroke 4 No. of cylinders 2 No. of cranks 2

Mean indicated pressure 98.5 lb. Firing order in cylinders 1-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 4 7/8

Is there a bearing between each crank Yes Moment of inertia of flywheel (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) 706 lb. ft.<sup>2</sup> Revolutions per minute 1100

Flywheel dia. 2 x 19 1/2 Weight 426 lb. Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule 2 1/8 Crank pin dia. 2 1/2 Crank Webs Mid. length breadth 3 3/8 Thickness parallel to axis Mid. length thickness 1 1/4 shrunk Thickness round eye-hole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule 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. 6 Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 6 in. forced

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 Ship Prop.

Pressure of supply 110 volts. Full Load Current 54 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

Details of driven machinery other than generator

PLANS.—Are approved plans forwarded herewith for Shafting Standard approved Receivers Separate Tanks

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

SPARE GEAR

The foregoing is a correct description,

Manufacturer.



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01378-01385-0205

Dates of Survey while building { During progress of work in shops - 1948 June 11. (1949) Mar 29  
During erection on board vessel -  
Total No. of visits Two (2 shops)

Dates of Examination of principal parts—Cylinders 11-6-48 Covers 11-6-48 Pistons 11-6-48 Piston rods 11-6-48

Connecting rods 11-6-48 Crank and Flywheel shafts 11-6-48 Intermediate shafts

Crank shaft { Material Steel Tensile strength 40 tons ✓  
Elongation ✓ Identification Marks N° C. 1443

Flywheel shaft, 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, Rule requirements & Secretary's letter.  
The materials & workmanship are of good description.  
The Engine has been tested under full load conditions and found satisfactory.

The amount of Fee ... £ 4 : 0 : 0 When applied for 6 May 1949

Travelling Expenses (if any) £ : 10 : 0 When received 19

Committee's Minute

Assigned

FRI. 5 AUG 1949

No Action / See F.E. Mchey - rpt.

Surveyor to Lloyd's Register of Shipping.



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