

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12434

Date of writing Report 14.2.1952 When handed in at Local Office 14.2.1952 Port of London Received at London Office THURS 28 FEB 1952

No. in Reg. Book. Survey held at London Date, First Survey 23 January Last Survey 13 February 1952 Number of Visits 3

on the Twin Triple Quadruple Screw vessel S.T. CELESTIN Tons Gross Net

Built at By whom built Yard No. When built

Oil Engines made at Dagenham By whom made Russell Humbery & Co Eng No 20BL659 Contract No D10715 When made 1952

Generators made at By whom made Contract No. When made

No. of Sets 1 Engine Brake Horse Power 18 M.N. as per Rule Total Capacity of Generators Kilowatts

Is Set intended for essential services Auxiliary

OIL ENGINES, &c.—Type of Engines High speed compression ignition 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 850 ps.i Diameter of cylinders 4 1/8 Length of stroke 6 No. of cylinders 2 No. of cranks 2

Mean indicated pressure 10.5 Firing order in cylinders 1 2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 5 1/4

Is there a bearing between each crank Yes Moment of inertia of flywheel 16 m² or Kg.-cm.² 34525 Revolutions per minute 1000

Flywheel dia. 25 Weight 336 lbs Means of ignition Compression Kind of fuel used pool

Crank Shaft, dia. of journals as per Rule No approval as fitted 2 1/2 Crank pin dia. 2 1/8 Crank Webs Mid. length breadth 3 1/2 Mid. length thickness 1 5/16 shrunk Thickness parallel to axis Thickness round eyehole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m² or Kg.-cm.²)

Are means provided to prevent racing of the engine when declutched Yes Means of lubrication forced Kind of damper if fitted none

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. 1 Plunger type Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 1 gear pump 2 gal/min

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

Scavenging Air Pumps, No. Diameter 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 Pressure of supply volts Full Load Current Amperes Direct or Alternating Current

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 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 Receivers Separate Tanks (If not, state date of approval) Armature shaft Drawing No.

Have Torsional Vibration characteristics if applicable been approved (state date of approval)

SPARE GEAR makers supply covering Rule Requirements To be verified on ship

The foregoing is a correct description,

Manufacturer.



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Dates of Survey while building: During progress of work in shops - 23, 31 January 13 February 1952
 During erection on board vessel -
 Total No. of visits 3 in shops

Dates of Examination of principal parts: Cylinders 23.1.52 Covers 23.1.52 Pistons 23.1.52 Piston rods ✓

Connecting rods 23.1.52 Crank and Flywheel shafts 23.1.52 Intermediate shafts ✓

Crank shaft: Material EN8 Tensile strength 40 ton
 Elongation 20% Identification Lloyds 236 26K 37 12 12 57

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

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

This engine has been built under Special Survey of tested materials the engine was examined during erection and under full load conditions the materials and workmanship are good. The engine is coupled to 10KW Crompton Parkinson generator both secured to fabricated steel underbase. The set is intended for Broady, Hull.

5m. 1. 18. - T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee Minutes.)

The amount of Fee ... £ 5 : - : When applied for 27/2/52
 Travelling Expenses (if any) £ : : When received 19

Committee's Minute FRI. 17 OCT 1952
 Assigned See F.E. entry, rpt. Hul. 58680

P. M. Selley
 Surveyor to Lloyd's Register of Shipping.

